GUIDE TO THE OJ23 OROKAIVA II FILE

[The Orokaiva were chosen as the representative for Cluster Area 36 (Papuans) in the Probability Sample Files B program. They consist of a number of closely related tribes speaking mutually intelligible dialects and showing a high degree of cultural uniformity. These tribes reside in the Northern District of Papua (now Papua New Guinea), and are concentrated in the Popondetta Sub-District in an area reaching from the coast at Buna Island to the northern slopes of Mount Lamington and the regions to the north of this general line.

Although the Orokaiva tribes did not have an inclusive name for themselves until "Orokaiva" was intoduced by the Europeans, they generally drew distinctions among themselves between the river people, salt water people, and inland people (umo-ke, eva'embo, and periho, respectively). There are widespread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limitied extent with the political division into tribes (7: Rimoldi, p. 3).

The precise boundaries of what may properly be called the Orokaiva tribal area are best determined by the criterion the Papuans themselves use, namely language. Orokaiva is part of the Binandere group of eight languages spoken in most of the more densely populated parts of the Northern District; of these, Orokaiva is spoken by the greatest number of people, but only by about half of the population in the Orokaiva-Binandere area. Dialect divisions within the Orokaiva language area are minor; the boundaries of the area coincide with those of the region administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions. While there are considerable vocabulary differences between the Binandere languages, there is a close resemblance in grammar and enough similarity in vocabulary to make a limited degree of intercommunication possible. Binandere is a family of the South-East New Guinea phylum of the Central New Guinea macro-phylum. Wider affiliations are not presently determinable (Voegelin and Voegelin 1977: 249-255).

The indigenous population of the Popondetta Sub-District totals some 36,500 people of whom 26,500 are Orokaiva and occupy the central lowland area. There are, in addition, an estimated 1,000 indigenes from other parts of Papua New Guinea, either employed by the administration of European planters (as contract labor) or operating smallholdings under a land settlement scheme.

The European population consists of about 500 persons, most of whom live in the district headquarters of Popondetta (pop. 600) and, like the the indigenes from other districts, live apart from the Orokaiva settlements (8: Waddell, pp. 7-9).

The area the Orokaiva occupy is a humid tropical lowland, and uniformly high temperatures and rainfall provide a year-long growing season. The seasons, usually referred to as "wet" and "dry", are definable in terms of wind direction, rainfall, and humidity. The wet season, from December to March, is characterized by northeasterly or northwesterly winds, high temperatures and humidity, and late afternoon thunderstorms, while the dry season, from May to October, experiences northeasterly winds, lower temperatures, less cloud cover and more irregular rainfall. Although seasonal variations in rainfall are slight, they have a considerable bearing on the rhythm of Orokaiva economic life (8: Waddell, p. 5).

The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Swidden agriculture is the subsistence base. The main horticultural product is taro which occupies about nine-tenths of the cultivated area, but a variety of other plants is found: banana, sugar cane, edible pitpit, German taro, and a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Although the

Orokaiva traditionally planted coconut, betelnut and a few other trees in gardens, villages, and in the bush, their arboriculture used to be rudimentary in comparison to their precise and detailed attention to tubers, especially taro. Under Australian pressure during the colonial period, rubber, coffee and copra trees have been planted, providing the Orokaiva with a reliable and substantial cash income in recent years (5: Schwimmer, pp. 18-20).

A good deal of plant and animal food is obtained by foraging, especially in the tropical rainforest which covers most of the Northern District. Foraged animal foods include grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are valued during the dry season, when roots, leaves and fern fronds may make up part of a meal. Fish are an important resource, the product being used not only for consumption but also for trade. Hunting is less important; the usual quarry consists of small marsupials, birds, and pigs. There are three kinds of domestic livestock: pigs, dogs, and fowls. Each man has one or more small dogs he uses for hunting but which are ultimately destined for the pot. Fowls are a useful source of meat, eggs, and feathers for decoration on headdresses, spears, etc. Domestic pigs are slowly disappearing from the villages, in response to a government campaign to eliminate pig husbandry in an attempt to improve village hygiene (5: Schwimmer, p. 20).

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked (5: Schwimmer, p. 18).

The basic economic unit is the household, most frequently occupied in the garden. Sometimes close relatives work together on larger tasks, helping each other in turn. Cooperation between men is common during hunting and house-building; cooperation of a total village is rare, but there are cooperative hunting and fishing expeditions. There is also a sharp sexual division of labor (5: Schimmer, p. 27).

Small villages are the characteristic unit of settlement, with houses dispersed in a more or less rectangular form around a central earth or grass "square". Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses are built by the men, each house normally being occupied by one nuclear family. Bachelors' houses, of the same size and construction as ordinary houses, are also built (5: Schwimmer, p. 23). Village size varies in relation to overall population

density, but nowhere exceeds 720 persons, the mean being 144 persons. The social organization and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and size (8: Waddell, p. 9).

A village normally contains more than one clan branch and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than with some of their co-residents; nevertheless, common residence implies some community of interest and a degree of group solidarity that is reinforced by government policy which recognizes villages rather than descent groups as functional entities. Marriages between members of different clan branches within the village also reinforce this solidarity, which is expressed in such ways as daily food gifts, cooperation in certain tasks, and joint ceremonial activities (8: Waddell, p. 9-10).

Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot necessarily trace, common descent from a usually eponymous ancestor. Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor. A lineage comprises, on the average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighboring villages. Lineages are more localized in character, frequently being confined to a single village and tending to occupy one section of it (8: Waddell, p. 10; 7: Rimoldi, p. 29).

Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and residence may be changed at any time. The distribution of clan branches through a number of villages is closely tied to access to the group's land, hence the initial motivation for a long-term change in residence may be influenced by proximity to a new area of land intended to be brought into cultivation (7: Rimoldi, pp. 29ff.).

The Orokaiva social system is characterized by flexibility in arrangements for group membership and for transmission of rights to land. Inheritance is usually patrilineal, and various land rights may be distributed at a number of levels of social organization -- the clan branch, lineage, and individual -- the relative significance of each varying with the locality and population density. Further, more than a single descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands. Primary rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.

Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on the land of affines or matrilateral kin. Inheritance or rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely affects other cultivation of the land (8: Waddell, pp. 10-12).

Orokaiva social organization incorporates no central authority or hereditary leadership. Instead, it is characterized by 'big men' (embo dambo) and an ascendancy of elders who have proved themselves equal to the task. Such men command the respect of the village -- based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities -- but the status confers no sanctions (8: Waddell, p. 10).

The tribe is the largest unit which has a common territory. This is usually isolated from neighboring tribal territories by a belt of uninhabited country, and its occupants may speak of it as 'one ground', pusu taharo. There are customary restrictions upon feuding within the tribe; this political unit is the largest with its own intragroup morality, in sharp contrast to the standard forms of hostility between tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids prior to

European contact. Intertribal trade, though small in volume, was politically important in providing a motive for terminating warlike disputes. Intertribal trade was mainly in animal products, betelnut ingredients, feathers, and certain artifacts known to be of high quality in particular districts (5: Schwimmer, p. 31). The tribes, about twelve in number, are very loose units politically and recognize no single leader.

The traditional faith of the Orokaiva, though in many respects vague and locally variable, concerned itself primarily with the "spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. The Orokaiva, however, have been swept in recent times by a series of new cults, indicative of their religious adaptability in the face of fresh experience (23: Keesing, p. 19).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican Church and is of a fairly orthodox nature. Mission influence has not managed to totally eradicate traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated

but often not substantially better educated than their pupils (9: Kearney, pp. 5-6).

The Orokaiva mission experience is but one aspect of a long history of European colonization. In 1888, in response to Australian pressure, the British government annexed Papua. Gold was discovered shortly thereafter, and this led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the start, and there were numerous killings on both sides. The Protectorate of British New Guinea became Australian territory by the passing of the Papua Act in 1905 by the Commonwealth Government of Australia. The new administration adapted a policy of peaceful penetration, and many measures of social and economic national development were introduced. Local control was in the hands of 'village constables', paid servants of the Crown; they were intermediaries between the government and the people, chosen by European officers. In 1951, an eruption occurred on Mount Lamington, completely devasting a large part of the area occupied by the Orokaiva. Survivors were provided with food, medicine, and other comforts by the government and were maintained in evacuation camps. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socioeconomic institutions, but large scale, expertly planned social, economic, and political development did not start in

Papua until around 1960, with the introduction of cash crops, agricultural extension work, land title improvement, road improvement, and educational development (5: Schwimmer, pp. 33ff.). Papua New Guinea became an independent nation on 16 September 1975.

This file is an update and continuation of the Orokaiva I file, which was processed in 1960-1961. It includes a substantial amount of new information on the Orokaiva, and contains 23 sources, numbers 5 through 27.

Among the notable additions to the file are sources 8: Waddell and 14: Crocombe, which together provide a comprehensive overview of the Orokaiva economy. Also included are a number of recent works by Erik Schwimmer, who has written on Orokaiva exchange cycles and trade relationships (sources 5 and 19), theories of paternity (source 20), personal relationships (source 25), mythology (source 26), and concepts of work (source 27).

The remaining sources in this file deal with narrower topics, and reflect the recent and widespread interest in Orokaiva social and economic development and acculturation. 10: Dakeyne examines the genesis and development of cash crop production among the Yega Orokaiva; 11: Dakeyne describes the rise of cooperative agricultral production among the Yega; 6: Crocombe and 15: Crocombe are concerned with the introduction of European-owned plantations in Papua and their effect on Orokaiva work organization and production; and 17: Morawetz

describes the ramifications of the land reform scheme initiated by the Australians on Orokaiva land use and settlement patterns. 18: Dakeyne is a study of Orokaiva acculturation, focusing on the Yega; also of interest in this vein is 12: Crocombe, which details changes in Orokaiva feasting due to acculturation, and 13: Hogbin, which describes a bridewealth exchange which took place in Inonda village in 1962. Sources 7: Rimoldi, 21: Belshaw, 22: Schwimmer, 23: Keesing, and 24: Schwimmer all describe the Mount Lamington eruption and its effect upon the Orokaiva and their social organization and beliefs. 16: Oostermeyer is a study of twelve Orokaiva entrepreneurs engaged in retail trading, and 9: Kearney reports the results of the administration of a purportedly culture-neutral test of cognitive ability to seven groups of adult male Orokaiva.

The Orokaiva I and Orokaiva II files should be used together. They contain a substantial amount of general ethnographic information on the Orokaiva, and together should prove to be useful for purposes of cross-cultural research, although coverage of religion and political organization is spotty. No special marking decisions were made for the Orokaiva II file.]

Reference:

Voegelin, C. F. and F. M. Voegelin. Classification and index of the world's languages. New York, Elsevier, 1977.

David Sherwood
30 April 1985

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 followed is especially appropriate for making sense of Melanesian societies, and perhaps other societies also. For the method to be consolidated, a second field study will be necessary, explicitly and systematically oriented towards communication systems, boundary systems, proxemics and the like, covering the communication of women, material objects and messages, and including at least some comparative perspective and some myth analysis. The present work, however, seems a necessary first step in plotting such new approaches to ethnography.

121 My work was much facilitated by a wealth of previous studies of the
114 Orokaiva,[4] of which the most valuable is still F. E. Williams' *Orokaiva Society* (1930). Re-study proved it to be a highly accurate work, focusing on the most challenging problems posed by the social system. Among these are the bilateral tendencies in the kinship system classified as patrilineal; the plant emblem groups; the relation of 'homicidal emblems' to initiation rituals and especially the subtleties of the value system, brilliantly handled in the chapter on 'Morality'.

A successor can fulfil various useful offices, some minor, some major. First, Williams' work can be used as a basis for a study of culture change. I have done this to some extent in an earlier work (Schwimmer 1969) and in the present work where the argument demanded it. Secondly, *Orokaiva Society* provides a composite picture of a number of closely related, yet by no means identical
[101] systems (Mountain Orokaiva, Aika, Yega, Binandere, etc.) In this re-study, I confined myself to Mountain Orokaiva, reserving for another occasion a survey of the diversities in degree of patrilineality, kinship terminology, ritual forms, leadership patterns and the like, all related to the ecological base and settlement history.

Thirdly, Williams' study of the Orokaiva was made early in his career. When reading his later works, we note analyses (on sex affiliation, 1932; on dual division, 1924, Ch. VIII, 1936 Chs. VI–IX, 1940: 32–5; on 'disease and its *treatment* 1940–2: 90–105; and on totemic groups, e.g. 1940) that would apply with minor variations to the Orokaiva, but are not developed in Williams' writings on that tribe. We need not suppose that in the Northern District Williams failed to observe what he saw and described in relation to Kerari or Elema. It is more likely that he was progressing steadily along a highly individual analytical path, leading him only gradually to perceptions which were theoretically far ahead of his times. In any case, in my analysis of Orokaiva plant emblem groups (Ch. X) my presentation is very close to Williams' work on the Elema, although it departs from that on the Orokaiva. Similarly, I have drawn on his writings on 'sex affiliation' among the Koiari and 'dual division' in the Gulf District, on disease at Lake Kutubu and so forth, thus bringing to bear the insights of Williams' maturity on Orokaiva material.

These are the minor tasks. The major one is to continue the search for system in New Guinea societies on the basis of these insights and of the theoretical discoveries of the last thirty years. Thus this book is in a sense a dialogue with Williams to which I contribute new data that seem relevant.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

463
464
167

Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

648 the Australian rulers, although they also know that so far the difference is not great.

177 Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

101 I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by
105 Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them.

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed.

Sivepe. I stayed in Sivepe for about nine months, from September 1966

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 105 until June 1967. Previous intensive studies had been made there by Rimoldi and Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

361
614
491
133
102

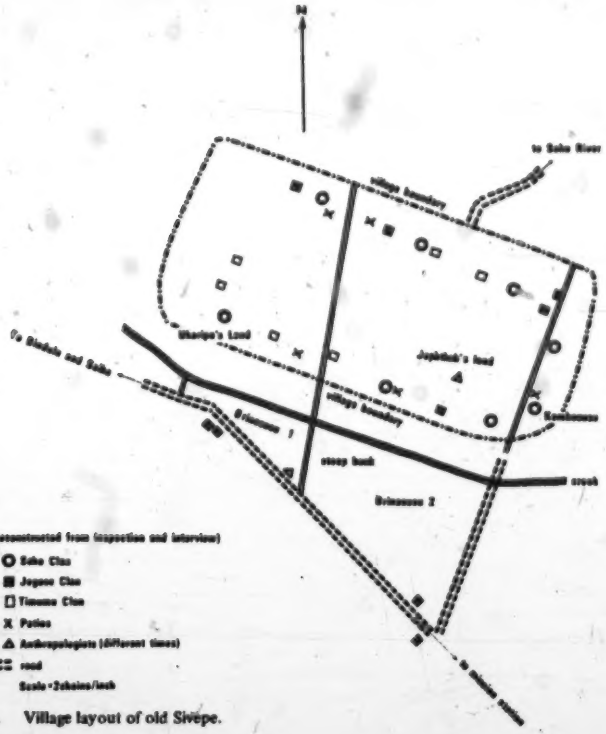

Fig. 6. Village layout of old Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme. 657 241 [423] [434]

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3) 657 245

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop. 245 [249] [433]

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(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorsta, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita. [361] [103]

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963. [124] [101]

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepe village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 114 Work in the field was shared by Burau, Ferraris and Rimoldi. Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepe[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepe for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sasembata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

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[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land is lower, flatter and comparatively poor and receives about 95
131 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kubuna, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

[10] [133] [162] tribe, which included Sivepe. It occupied the volcanic slopes under fairly uniform and distinctive ecological conditions. The mountain Orokaiva now include roughly the 8,000 people in the closely-settled Saiho Census Division areas, that is, the people who have been called 'Wasida' or 'Periho'. They also include the members of the few adjacent villages who are the only 'Sangara' people surviving the 1951 eruption of the volcano.

[62] [36] Belshaw (1951:2) reported that among the mountain Orokaiva until 1951 'the residential group...consisted of a number of separated hamlets.... Hamlets grouped themselves together under a common name, such as Wasita 1, Isivita 1, Isivita 2 etc.... Each hamlet group, or "village" in administrative parlance, was separated geographically from its neighbouring hamlet group'. The two 'villages', Isivita 1 and 2, had comprised 19 named 'hamlets' and represented the Isivita 'native district' which, Plant[1] (1951: Appendix 4) says was joined with the Sasembata (8 hamlets), Koropata, Wasita, Awala, Soroputa, Sairopi, Mumuni and Wairopi districts[2] to form the Periho tribe. This 'closely approximates to' what Williams called the Wasida tribe.

[162] Shortly before the eruption of Mt Lamington in 1951, Sivepe, Binduta, Nahihita, Pusahambo, Korinasusu and Heherita[3] were grouped under the name of Awala 2 and had a total population of 250,[4] compared with the range of 150 to 400 which Belshaw (1951:2) attributes to 'hamlet groups' in the area. There is a radical difference in size between the small hamlet described by Belshaw and the characteristic nucleated village of post-eruption years (excluding interim evacuation 'camps'). Nevertheless, we hereafter refer to both as a 'village' when not quoting. This does not

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1 Plant uses the term 'village group' for Belshaw's 'hamlet group' or 'village'. Williams (1930:131) refers to Belshaw's 'hamlet' sometimes as a 'village' and sometimes as a 'village group'.

2 He earlier (1951:3) omitted Mumuni and Wairopi - see p.31. On Map 1 see Hururuta for Mumuni District, and Ombisusu-Ajeka area for Wairopi District; the Sairopi people are about 4 miles south of the Mumuni.

3 The last 3 'hamlets' were not re-formed after the eruption; another which was established about this time took the name Awala No.2.

4 In a sample of 50 nearby hamlets in other groups in the Saiho Census Division the average hamlet size was 36 persons as against 41 in this group. Note also that in 1923 the Awala hamlets (including those in Awala 1) may have numbered 15 (Williams:W.83).

Appendix A

The identification of 'the tribe'

101 The various accounts which observers give of the Orokaiva living on the slopes and plains north-west of the crater of Mt Lamington differ explicitly or implicitly as to both the composition of the largest political unit and the proper local name for it. Williams (1925:406; 1930:5, 136) refers to them as the Wasida (Waseta according to the local dialect) or Jegasi Sarahu tribe and distinguishes them from the Sangara, Aiga and other Orokaiva tribes on the grounds that these are the largest units with a common name, a common territory and enemies, and a distinctive dialect. The actual classification follows a less certain one made earlier by Chinnery and Beaver (1915:160).

Reay (1953:110) also speaks of the 'Wasida or Jegase Sarata tribe' and Chinnery and Beaver (1915:161) of the 'Jegasi-Sarau (Wasida)' but these writers do not indicate the specific area to which the name is to refer. Although in one context Williams (1925:406) locates the tribe 'on the plain immediately north-west of Mt Lamington', elsewhere he greatly extends the tribal boundaries (see pp.29-30).

It may be noted that the Jegase and Sarahu, whose names in combination have been used to designate either a 'locality group', 'tribe' or 'sub-tribe' (Williams 1925:417); 1930:150, 310; W.10; Reay 1953:110) are merely 2 of the clans in the tribe.[1] The same is true of the Ato-Pekuma group which Williams refers to as one of the 'fairly distinct halves' of the Sangara tribe.[2] Chinnery and

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[1] See Williams W.10, 42. The clans were not confined to the villages known as 'Wasida' (W.69, 83); see also Plant (1951: Appendix 3) where he notes that Jegase men were present in both Wasida and Awala villages in 1950.

[2] Plant (1951: Appendix 4) insists that the Ato-Pekuma are members of the Periho tribe not of the Sangara.

101 Beaver (1915: Appendices 3 and 4) speak of the Jegasa-Sarua (or Jigasa or Jegasa-Sarana) and of the Atibi Guma (or Atibeguma) as tribes but are inconsistent in locating them in relation to their neighbours.

Since 'Wasida' people were allied with Sangara groups in fighting their neighbours to the north (the Divinikovari, Togahau, etc.), Williams' only grounds for treating the 'Wasida' as members of the same tribe as the Hunjovarehu and as opposed to other neighbours, including the Sangara[1] is the precedent sent by Chinnery and Beaver (1915:48) who claimed that their map of linguistic areas 'will show with tolerable clearness the various groups of tribes'; although Williams claims that 'the ultimate bases of the tribal division are political and economic' (1925:406), he states that his classification is based on their list of linguistic differences (1930:5) and follows them 1930:150 and end map; 0.9) in placing Divinikovari in the 'Wasida' area; he himself adds (ibid.) that this language classification 'apparently does not coincide with the tribal classification' since the Divinikovari (i.e., Hunjovarehu) and 'Wasida' are of different tribes.

Belshaw (1951:2) and Plant (1951: Appendix 4) prefer 'Periho' to 'Wasida' as a tribal name. The local people agree at least that 'Wasida' is inaccurate because it is really the name of a village[2] and may refer only to its inhabitants, or sometimes also to its immediate neighbours - just as Sivepe villagers may be called Avala people after the nearby village of that name; this identification with a named group of villages or 'hamlet group' seems to be weaker than it was even a decade ago.

[829] On the other hand 'Periho' (alternatively 'Berepo') is a general term for 'bush', that is inland peoples,[3] used by those closer to the coast (usually to the east) and is applied by them indiscriminantly to several tribes - at times to the Sangara (Williams 1930:6; 0.410). The Sivepe people are sometimes spoken of as the 'Kombu Periho' (kombu, from or of, a mountain or height);[4] they prefer to use the term 'Kombu Sangara' when referring to themselves and other Orokaiva from the slopes of Mt Lamington.

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[1] Plant (1951: Appendix 4) also argues against this.

[2] Williams was aware of this (W.10) although he usually chose to retain the European-introduced usage, sometimes referring thus, as with 'Jegasi-Sarahu', to the tribe as he saw it and sometimes to the group of villages in the tribe.

[825] [3] One meaning of 'periho' is a small wild pig from the bush.

[4] This is applicable a priori to the Sangara.

[p. 106 is blank]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Preface

The New Guinea Research Unit has undertaken several studies among the Orokaiva as part of a programme of research into systems of land tenure and their relationship to economic development.[1] The present enquiry was designed to extend the information gained from these studies through an analysis of the organisation of work and the patterns of exchange among communities practising both subsistence gardening and cash cropping. 121

More specifically, it was concerned to ascertain whether the requirements of the subsistence sector of the economy impose limitations on the expansion of activities in the monetary sector and, conversely, whether participation in the monetary sector involves restrictions on subsistence activities. Within this framework attention was directed to observing the extent of participation in commercial activities, how cash is used, whether periodic peaks of labour occur in the two sectors and whether there are common factors in the backgrounds of people cultivating cash crops. Brief consideration was also given to other phenomena influencing the relationship between the two sectors: the physical environment, the social system, the system of land tenure, the types of cash crops grown and the nature of the people's contacts with innovating agencies (principally the Administration and the Anglican mission).

Method of investigation

Simultaneous enquiries were conducted in two villages, Sivepe and Inonda, in the Higaturu Local Government Council area of the Northern District. Both had been the subject of earlier studies conducted under the auspices of the New Guinea Research Unit and much background information was available. Census data, an inventory of material possessions (including trees and livestock) and details of cultivated areas were collected. Daily records of all activities and transactions for the same individuals were entered on two schedules: (i) work organisation and (ii) acquisition and disposal of goods, cash and services. Diaries were kept to record [101] 125

[1] See New Guinea Research Bulletin, numbers 2, 4, 6, 11, 13, 16 and 17.

interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

The survey was conducted over three separate periods during 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of available rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activities.[2] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

The gathering of field data was shared equally between the authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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[1] In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

[2] It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

Preface

125 In this study, carried out between February and April 1963, seven groups of adult male Orokaiva were tested using a culture-
(101) fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

[p.4 is blank]

FOREWORD

101 [619] In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

241 241 423 657 During the last ten years there has been considerable development of commercial agriculture within the area. Many people have planted cash crops on land held under customary tenure; some villages have planted communal blocks on land set aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of the land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land tenure and work organization.

It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepe, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

(1) Population density in the Saiho census division (which includes Sivepe) is 72.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 402 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 402 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted 126 by Mr Cromwell Burau and Mr Edric Eupu. Information was collected on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four whose stores had an average monthly turnover of less than $50.00.
472 Group III comprises those with a turnover in excess of $50 a month.

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[1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

[101]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P-5-B]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wezis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

OCEANIA

A JOURNAL DEVOTED TO THE STUDY OF THE NATIVE PEOPLES OF AUSTRALIA, NEW GUINEA, AND THE ISLANDS OF THE PACIFIC

VOLUME XXI JUNE 1951 NUMBER 4

SOCIAL CONSEQUENCES OF THE MOUNT LAMINGTON ERUPTION[1]

By CYRIL S. BELSHAW

THE eruption of Mount Lamington in the Northern Division of Papua in January, 1951, was accompanied by the immediate and total destruction of Government Station and Anglican Mission Station and the death of about 4,000 people. About 5,000 natives were evacuated from the blast perimeter to refugee camps at Oro Bay and Wairope; the Wairope camp was destroyed by floods a few days later and moved to Ilimo on the Kokoda Road. The villages of over 1,500 of the survivors were either destroyed or considered to be unsafe for habitation. In addition to these people those who had their gardens near the rivers which were fed from the Lamington slopes saw them destroyed by floods, while others on the Managalasi (southern) slopes of the volcano, not directly affected by blast, had gardens ruined by volcanic dust. This article is concerned principally with the survivors directly affected by the blast, that is those people living between Popondetta and Wairope who either had their homes and gardens destroyed or who are acting as hosts to such refugees, and who may be described as the Periho section of the Orokaiva people.

Such a sudden and devastating experience is a shock, not only to the physical and mental systems of the people who suffer it, but to the whole fabric of society. It will be many years before all the consequences can be clearly defined: in the meantime this article may serve as a tentative analysis and in some measure a historical record.

According to European eye-witnesses now in the area, the people were disturbed but not unduly frightened during the five days between the first signs of eruption and the devastating blast. The night before the blast, when the sky was darkened and tremors were felt, large numbers visited missionaries and government officers

[1] This paper is based on a two weeks visit to the area during April and May, 1951. I wish to thank His Honour the Administrator of Papua and New Guinea for making the visit possible; also the re-settlement staff, all of whom were so generous with hospitality and information.

[p. 241]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being æsthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Bosiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Puriho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

PREFACE

The following report presents data designed to be used in "A Comparative Study of Cultural Change and Stability in Displaced Communities," a project directed by H. G. Barnett. The report follows closely a list of topics specified as variables in the study. In a preliminary statement on the project, Professor Barnett (n.d.) states the reasons why the Orokaiva, living on the slopes of Mount Lamington, were included in the project. In 1951, Mount Lamington erupted, some 4,000 people were killed, and the survivors were resettled under close governmental supervision. This resettlement, as a consequence of a natural disaster, makes the Orokaiva case comparable to the other 11 cases included in Professor Barnett's study. The focus of our attention must therefore be the social and other cultural consequences of this government-sponsored resettlement.

I should at once note certain differences between this Orokaiva case and most of the others included in the study. Mount Lamington forms the centre of a rather populous district which is segmented into very small units socially and politically, but which forms a definite unity in cultural respects. (See Map I.) Differences in language, social structure, political and economic organization and material culture, in a wide area North of Mount Lamington, and included in the Popondetta, Soho Popondetta and Saiho divisions of the Northern District, are so small as to be almost insignificant. Only one of the refugee camps established immediately after the eruption was outside this culture area, and its occupants were shifted back to the Orokaiva district within a few weeks. From that point onwards, people were no longer separated from their culture but only from their land. As resettlement proceeded, even separation from traditional land holdings was soon terminated, so that the typical "resettled" village, though in a different spot from the pre-eruption village, still had access to the same land holdings.

In these circumstances, many of the traumatic experiences which are the subject of the other case studies in this project are not replicated in the Orokaiva case. There is no question, however, about the serious social consequences both of the eruption and of the large-scale government intervention that followed. To trace these consequences at the present time is no easy task. As all the Orokaiva returned to their own land a number of years ago, a great part of this report is an historical reconstruction and the Orokaiva are neither devoted nor accurate historians. Most happenings are covered over in their memory just as the jungle rapidly covers over past cultivations and past settlements. Some songs, some myths, and the harrowing personal experiences remain.

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepe, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepe, with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepe a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hohorita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimoldi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

177 in its attitude to culture contact, is somewhat homogeneous, Inonda
195 is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

177 The changes which have occurred in the pattern of outside
181 contacts in Sivepa between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[199] than for the trade-store movement. It is an ideology referred to by the Orokaivs as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepa.

177 Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white men's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier, an interpreter is, at the very least, required as intermediary
[191] between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepa in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepa the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

101 These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Orokaiva worked their hamlets and gardens high up on the rich soil of its sprawling flanks, achieving perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higaturu.

The first eruption came on a Sunday morning after three anxious days of earth tremors during which official and Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good-

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2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

THE EVENT AND ITS SETTING

On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor 1958:7).[a] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1).[1] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homogenous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

rather than security was the main motive. Villagers were able to use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hospital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[8]

My research included three intensive studies of single villages. The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 persons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[9] This third clan group returned to Sivepe early in 1952. Sivepe was rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was concerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion to the mission station. The government had demonstrated in the most tangible way that it accepted broad responsibility for the people's welfare in a time of crisis and would act with great generosity in such circumstances. The mission, which likewise had established close relations with the people of Ilimo, had subsequently remained to develop those relations.

As a control group for the study, I used the small village of Inonda, 12 miles from the crater and outside the restricted zone. Inonda differed from Sivepe in that its population was never evacuated or relocated. It continued to use its own land. The comparison of Sivepe and Inonda thus provides a measure of the effects of actual relocation as distinct from other experiences the two villages had in common. In Inonda only one-fifth of the land is arable; none of it is as fertile as the volcanic loam of the Mount Lamington foothills; rainfall is lower than in Sivepe and so distributed that lengthy droughts are not uncommon. Drainage is inferior while population density is only ten persons per square mile.

Inonda acted as host for the population of Sewa village who fled their homes on the morning of the eruption. Among the fugitives was a mission teacher who set up a school in Inonda. When he was later transferred to another district, Inonda pleaded fervently and successfully to get him back. Today Sunday services are given by a lay preacher and children attend a mission school several miles away which teaches up to grade two.[19] Interaction with government and mission authorities was far less intensive at Inonda than at Sasembata.

The third village I studied was Hohorita (population 348), 7 miles from the volcano, with soil largely similar to Sivepe's, good rainfall, good drainage, and a population density of 135 persons per square mile. Hohorita is made up of the survivors of the Sangara tribe, once 4,000 strong, which was almost entirely wiped out by the eruption. The survivors were evacuated to camps along the coast and then allowed to return to the boundary of the restricted area, where they built a village called Irihambo. They were ordered to leave this village some years later (as it was situated on crown land intended for the settlement of Australian ex-servicemen) and then established Hohorita in 1957–1959. The Hohorita people, like other relocated groups, had had intensive contact with government and mission personnel. An unusually large number entered skilled occupations, partly because the San-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a carefree life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthrolopologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Part III

Friendship and Kinship: An Attempt to Relate Two Anthropological Concepts[1]

5

Erik Schwimmer

THE PROBLEM OF A DEFINITION OF FRIENDSHIP

121 A universally applicable definition of friendship is difficult to arrive at. Nonetheless, the sentiments attached to the concept of friendship have, to anyone with anthropological experience in non-Western societies, the appearance of being universal. But even if the sentiments are universal, it is impossible to designate categories of persons, recognized in all cultures, between whom the sentiments of friendship normally prevail. The term 'friend' is, in many languages, non-existent or indistinguishable from 'kinsman.'

One may argue, as Paine has done (this volume, pp. 117–37), that friendship is a relationship found only in societies of a certain type. Thus, friendship would be personal and private and have characteristics such as autonomy, unpredictability, and terminality. Paine argues that societies which have friendship in this sense tend to be technologically advanced and complex in their socio-political structures. While one can find no scholarly objections to this approach, it leaves unsolved the question which concerns me in this essay: can we find a definition of friendship such that the symbolic idioms in which the sentiments of friendship are expressed in all cultures can be comparatively analysed?

Clearly, we cannot do so directly as these symbolic idioms are part of a vast variety of classificatory systems found in different societies and the place of friendship in these systems depends on their overall arrangement. We can, however, start from a universal type of association which is initiated by mutual attraction and which is maintained by the exchange of intrinsic benefits (benefits arising solely or largely out of the association itself). We can then inquire whether there is a universal relation between this phenom-

101 122 [114]

1 This essay is based on research carried out in the Northern District of Papua in 1966–7 and 1970 (with the financial help of the Canada Council and of the *Project for the Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific*, directed by Dr. H. G. Barnett). My wife, Ziska, helped in data collection, especially for the section on *jao* relationships. Dr. T. F. S. McFeat and Mr. A. Tanner read the manuscript and made useful suggestions.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

In this essay, I shall present data on the friendship universe and show that Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

Between the districts where the data were collected, there are slight differences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

NOTES

1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

3. "A principle of gradation by which elements are related to the whole of which they form part."

4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.
2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: '*Iji aramiko ambo ainge esoro. Amina pure mo umbae. Amora pure re Keriso na Ikena umbasi ea avo.*'
3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.
4. M. Panoff reports that *kuma*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

Fig. 1. Popondetta Sub-District: generalised land classification

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
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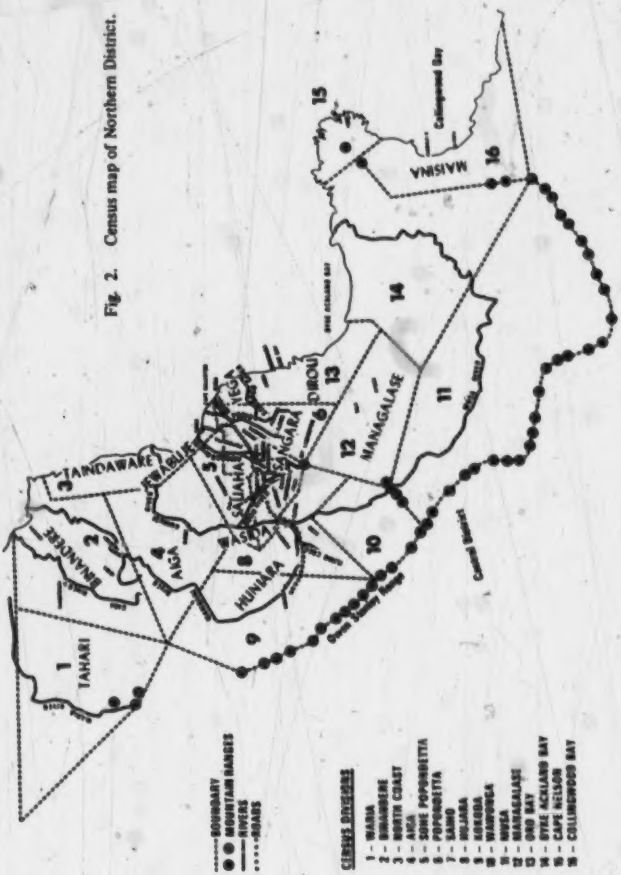

Fig. 2. Census map of Northern District.

5: Schwimmer E-4,5 (1966-1967) 1973
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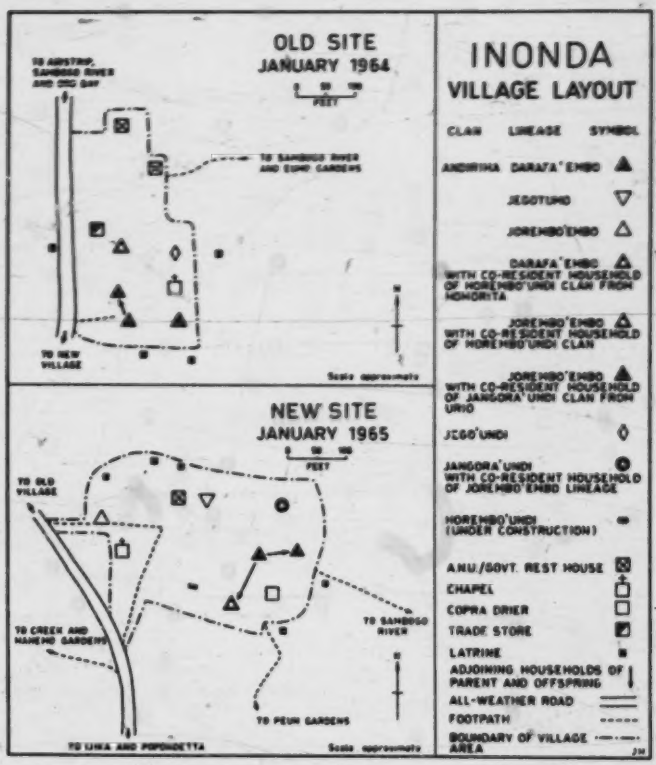

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and
105 Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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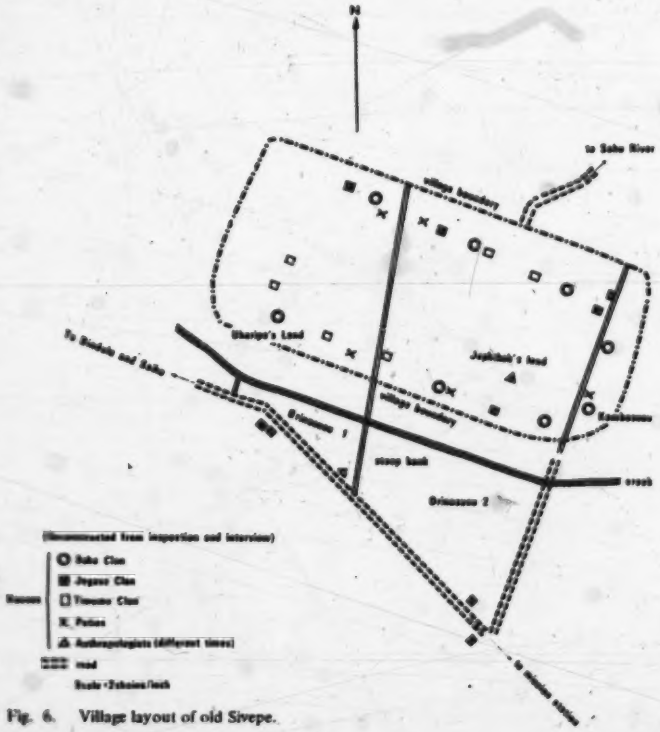

Fig. 6. Village layout of old Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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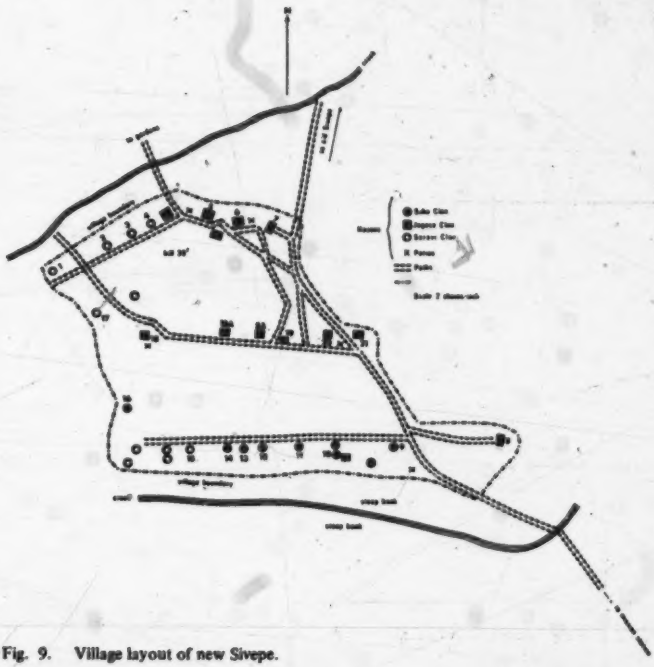
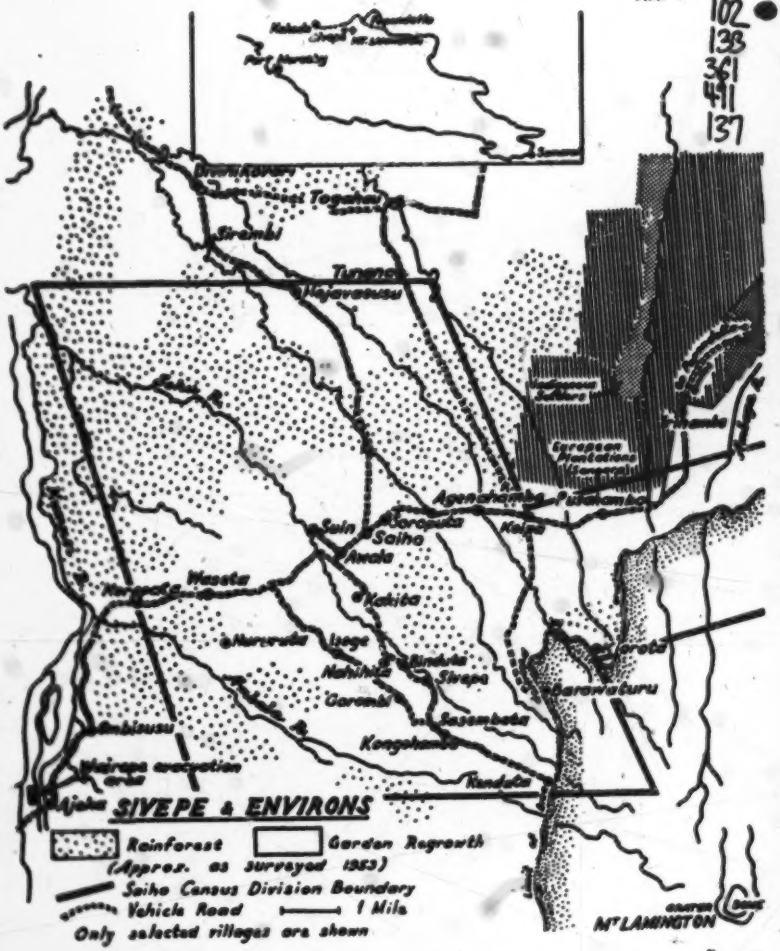


Fig. 9. Village layout of new Sivepe.

361 616 614 621 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in 1963 and 1964 show no formal separation between the clans. Some neighbouring villages, such as Garombi, however, did allocate one side to each of their two clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 616 121 I have now shown most of the evidence for direct marriage exchange and forms of dual organisation. The question that remains to be answered is why this system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

MAP 1



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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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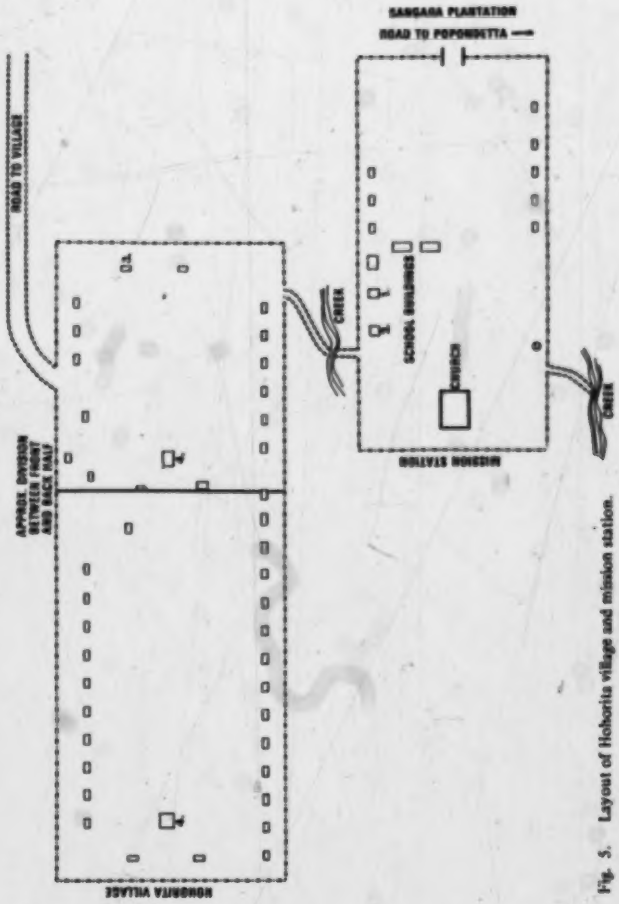

Fig. 5. Layout of Hohorita village and mission station.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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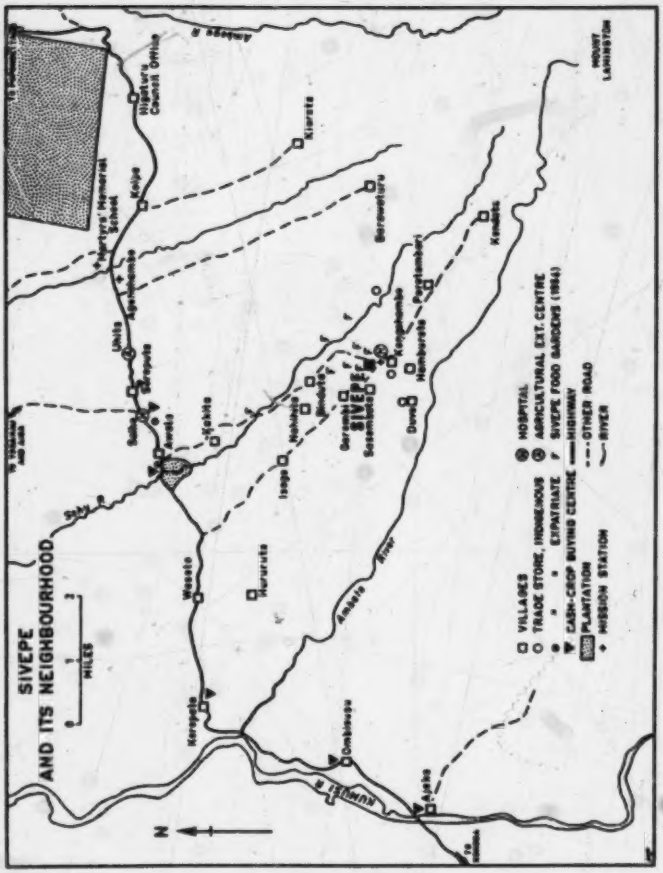

Fig. 10. Sivepe and its neighbourhood.

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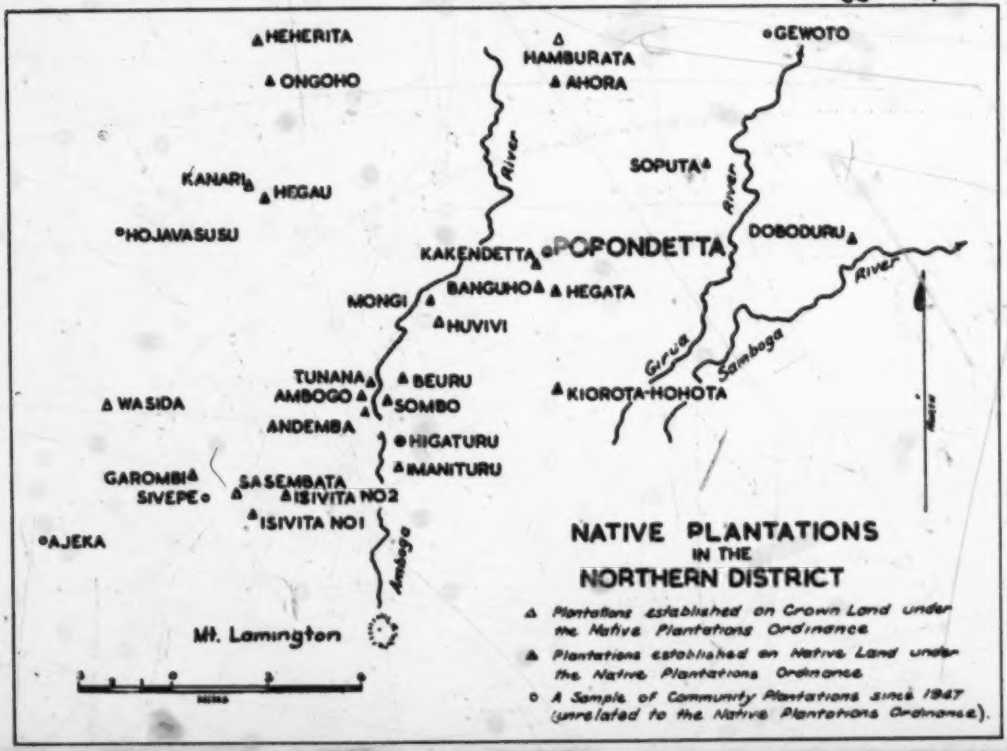

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6: Crocombe E-4,5 (1965) 1964 OJ23 Orokaiva OJ23

7: Rimoldi et al. E,I-S (1962-1963) 1966 OJ23 Orokaiva OJ23
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Sivepe

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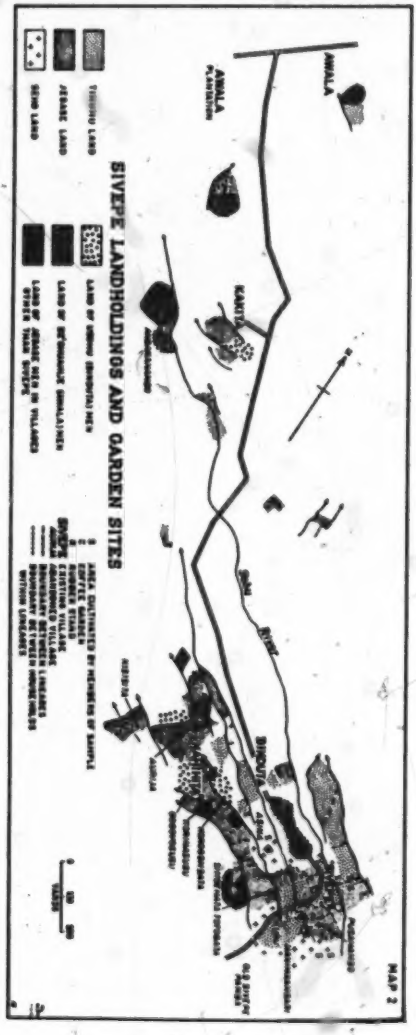

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7: Rimoldi et al. E,I-5 (1962-1963) 1966 OJ23 Orokaiva OJ23
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Siwepa

SCHEMA OF MAJOR LOCAL MIGRATIONS 1900-1950*

● Extant Village ○ Village now abandoned

[8] Original Centre of Dispersal of Jegase

Double lines on an arrow indicating a movement means that village was thereby abandoned
Movements with same date and destination were directed by administration, as was Barakipa move in 1948

*Excluding wartime movements

Relative positions of villages are distorted for the sake of clarity. (See Map 2.) Most prewar dates have a margin of error of at least 5 years: figures are given only to indicate sequences. Dates most in doubt are marked ?

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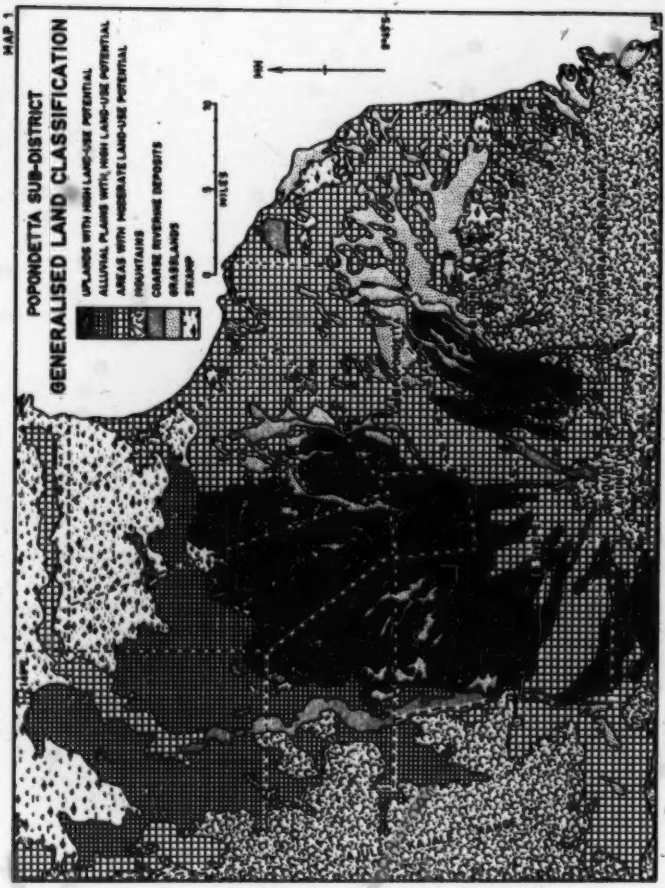

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MAP 2

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0723 Orokaiva 0723

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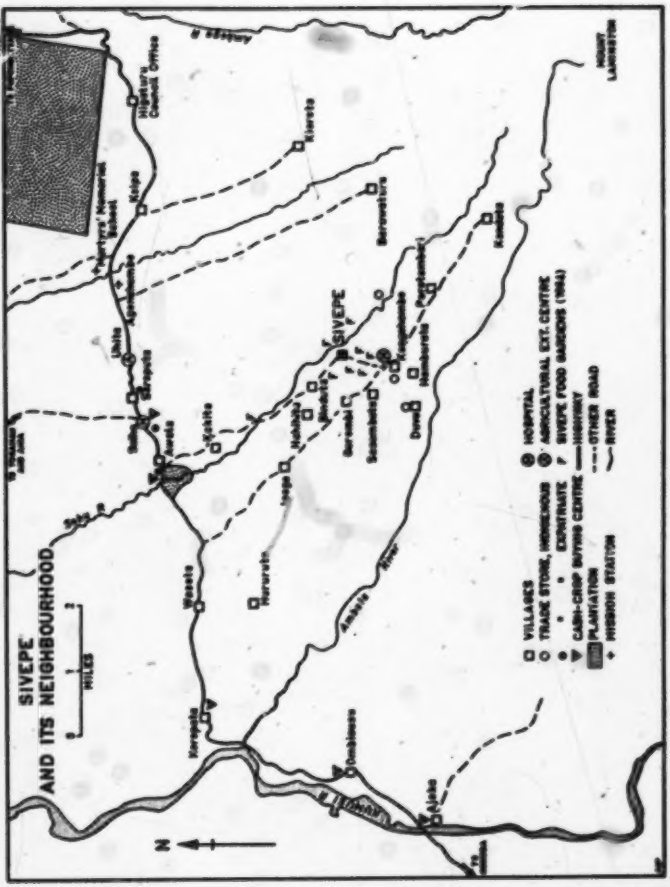

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

MAP 4

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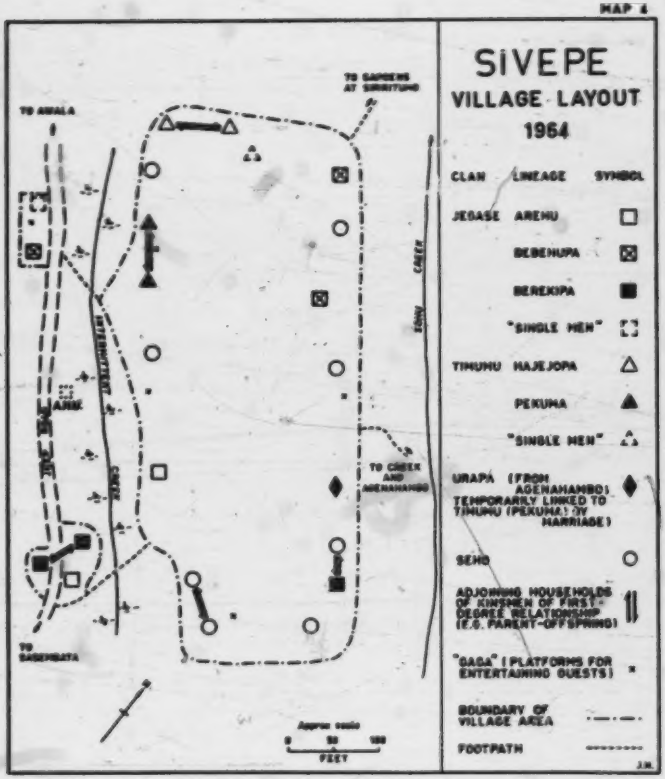

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Muhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 368 131 The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two of them expatriate-owned, and a new Administration school. This latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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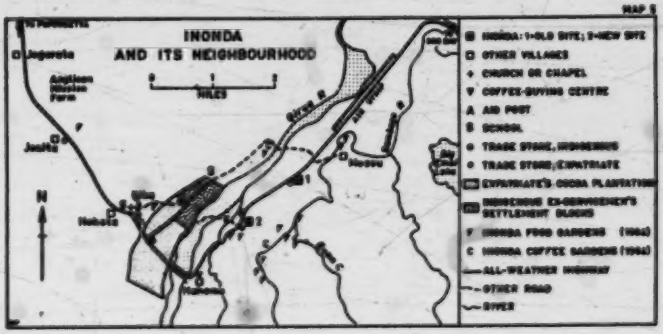
MAP 5



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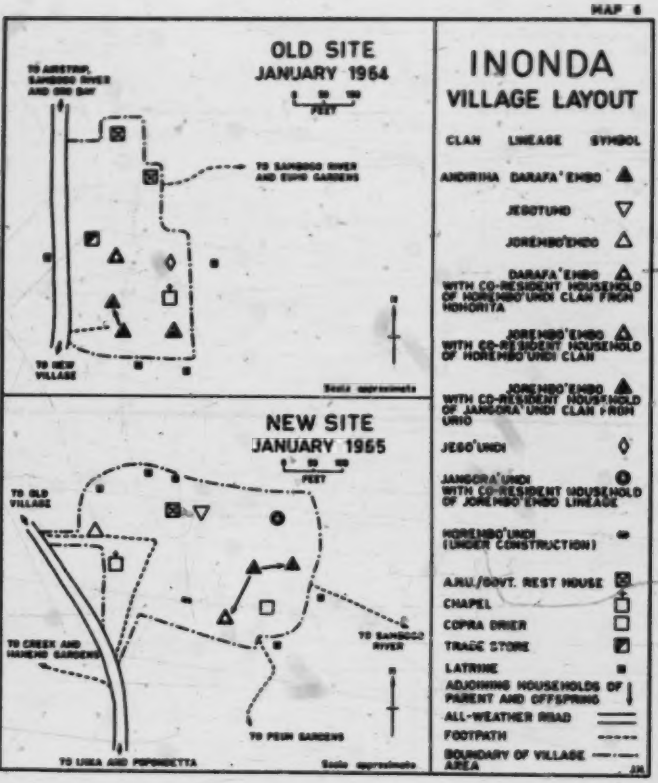
MAP 6



9: Kearney P-5 (1965) 1966 OJ23 Orokaiva OJ23

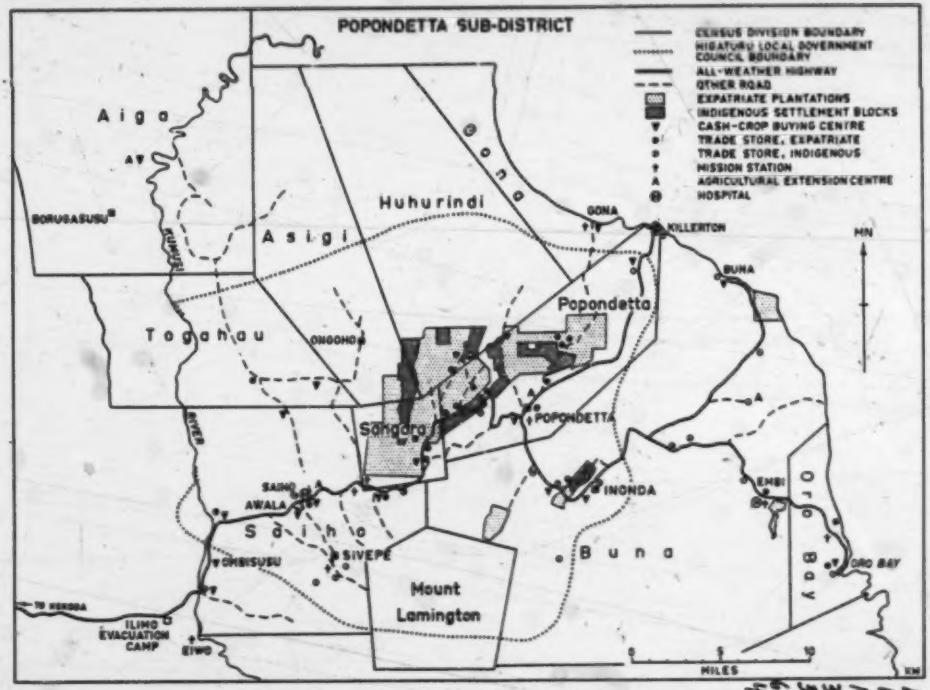


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Figure 1

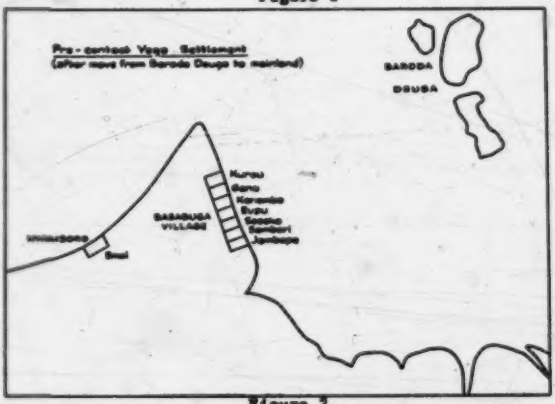

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Figure 2

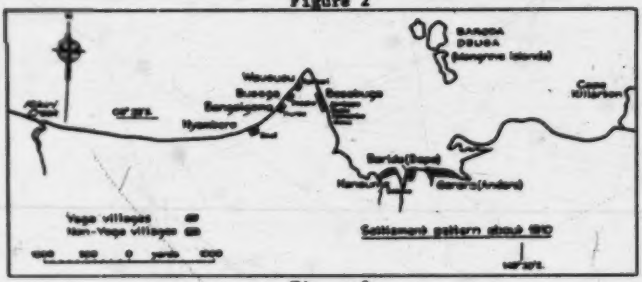

Figure 3

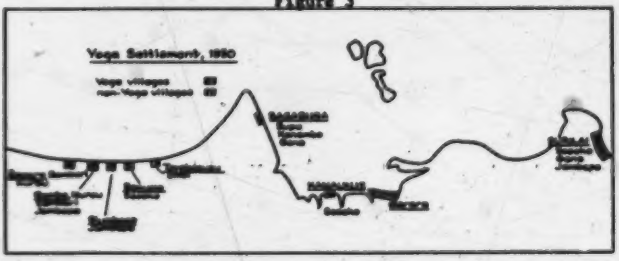

Figure 4

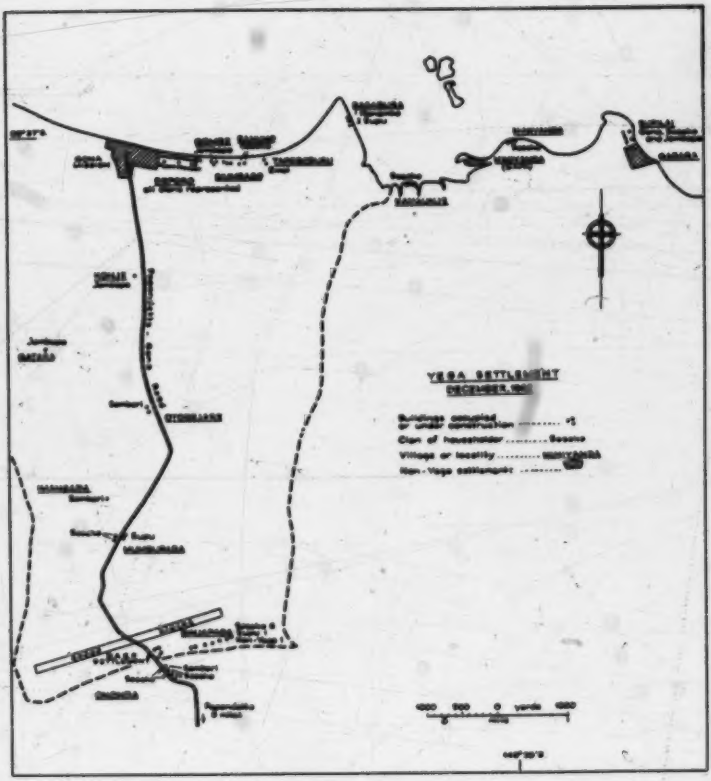

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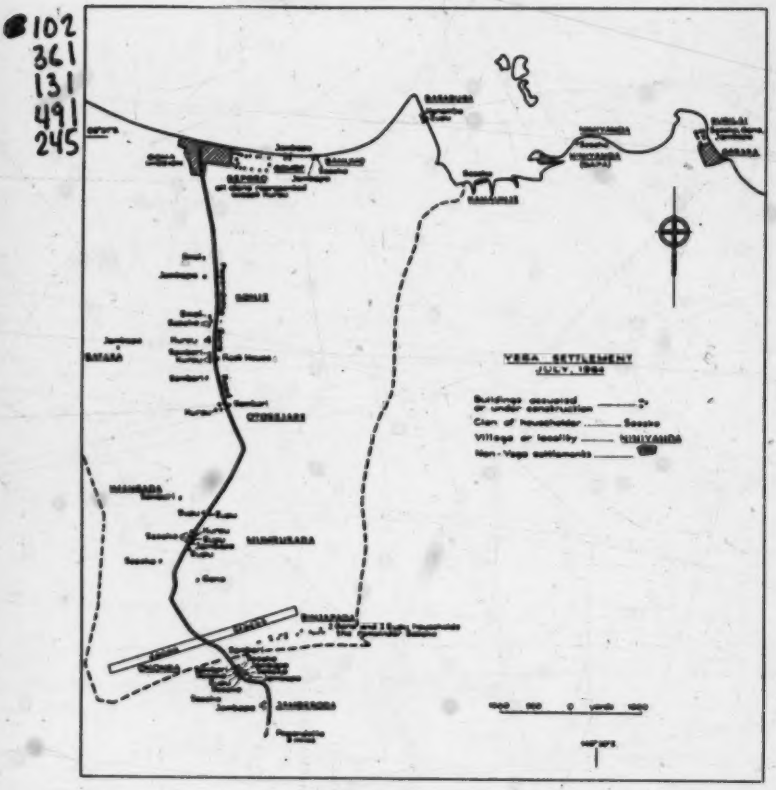
Figure 5



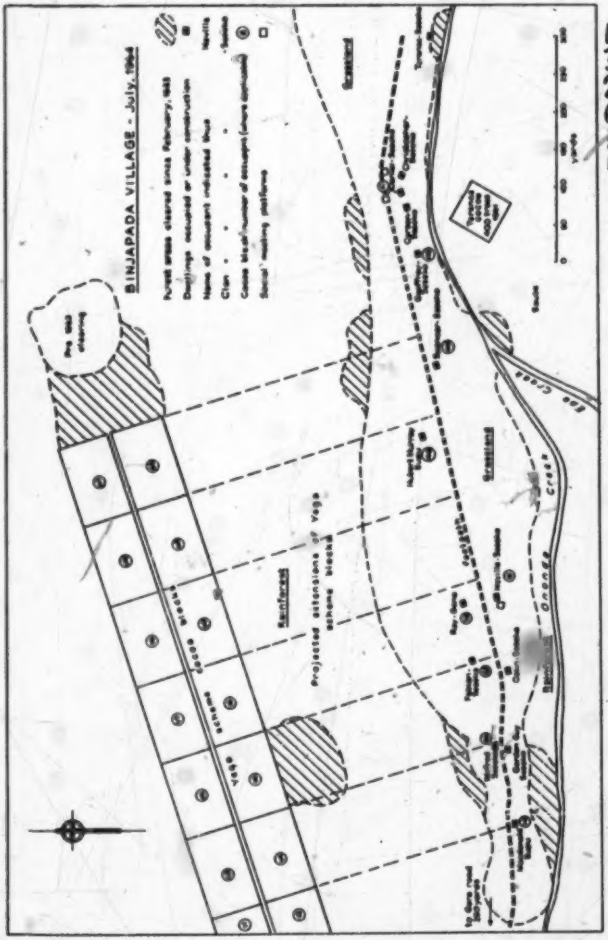


Figure 6

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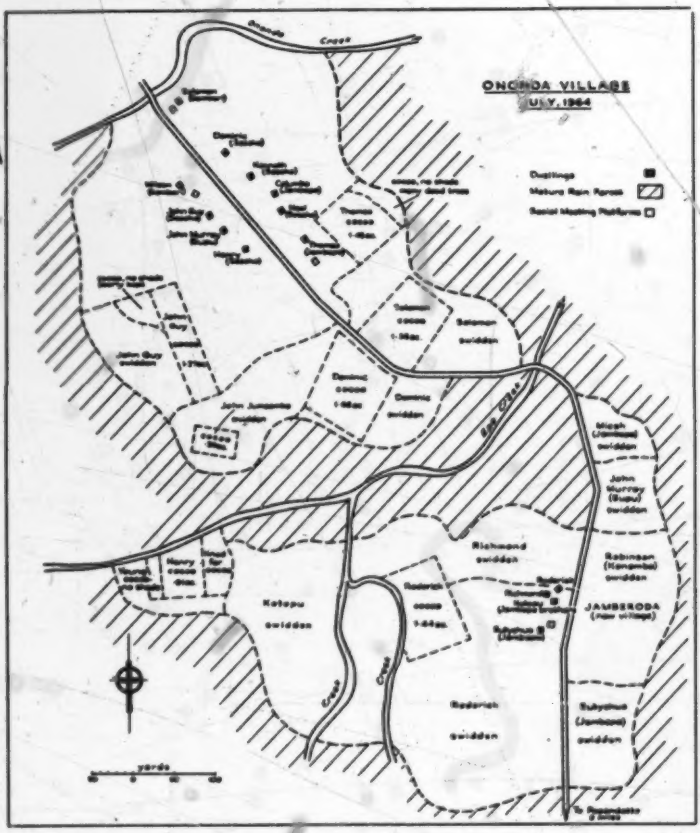
Figure 7


ONONDA VILLAGE
JULY, 1964
Buildings
Mature Rain Forest
Social Meeting Platforms
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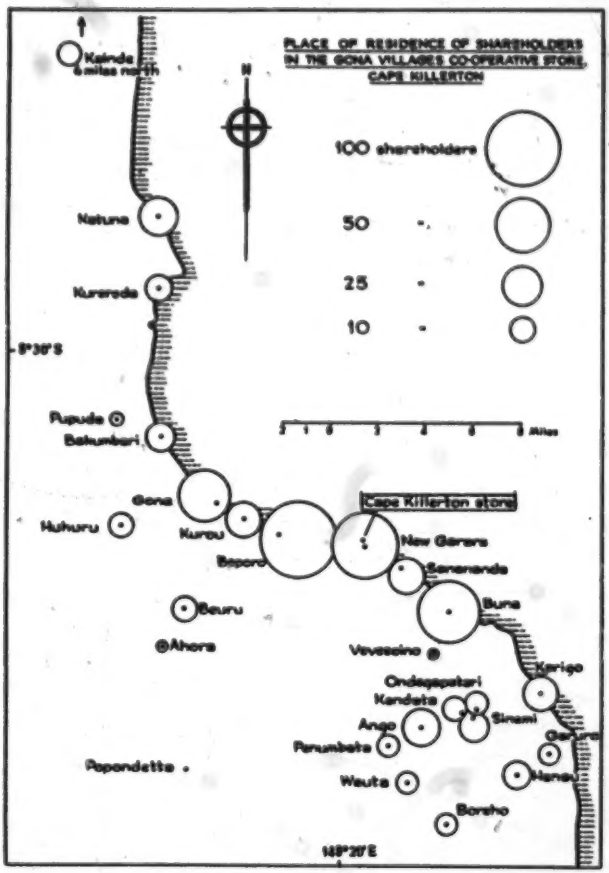
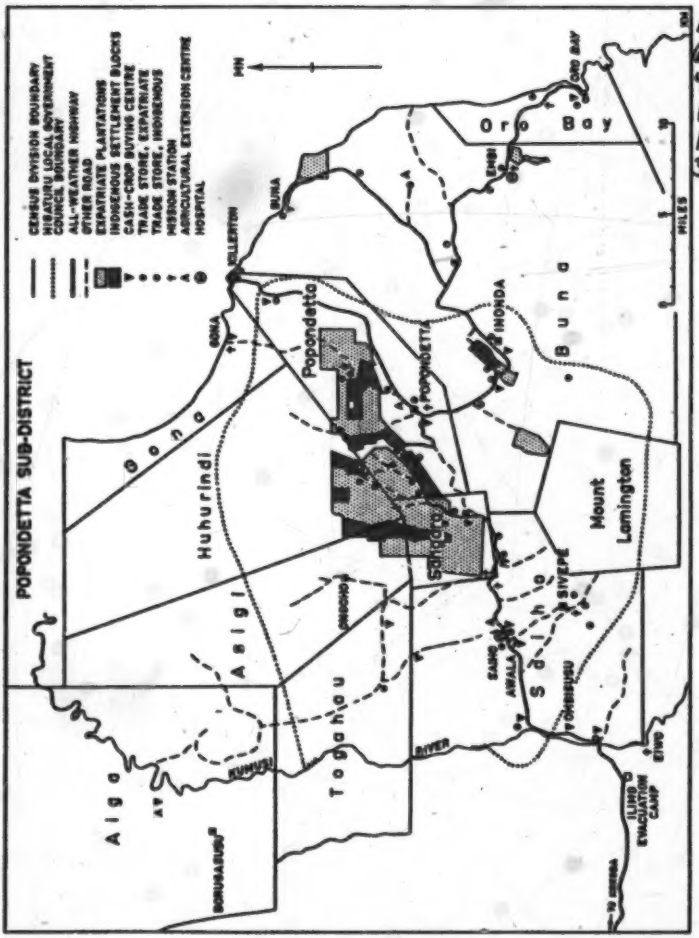


Note. At the time of joining the society Yega members lived in eight small villages but total Yega membership is shown as Beporo. In 1964 the Yega were dispersed throughout their territory in 17 localities varying in size from 30 houses to single homesteads.

11: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega



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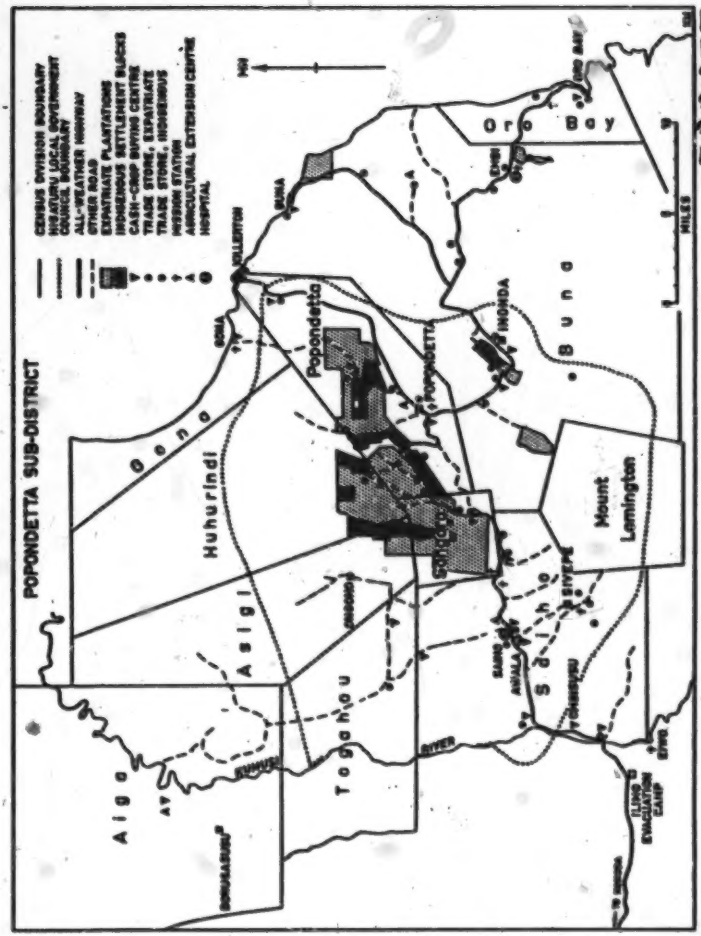
12: Crocombe E-5 (1962) 1966 OJ23 Orokaiva OJ23
Inonda



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[p.44]

13: Hogbin E-5 (1962) 1966 QJ23 Orokaiva QJ23
Inonda

[p.iv]

102

13: Hogbin E-5 (1962) 1966 QJ23 Orokaiva QJ23
Inonda

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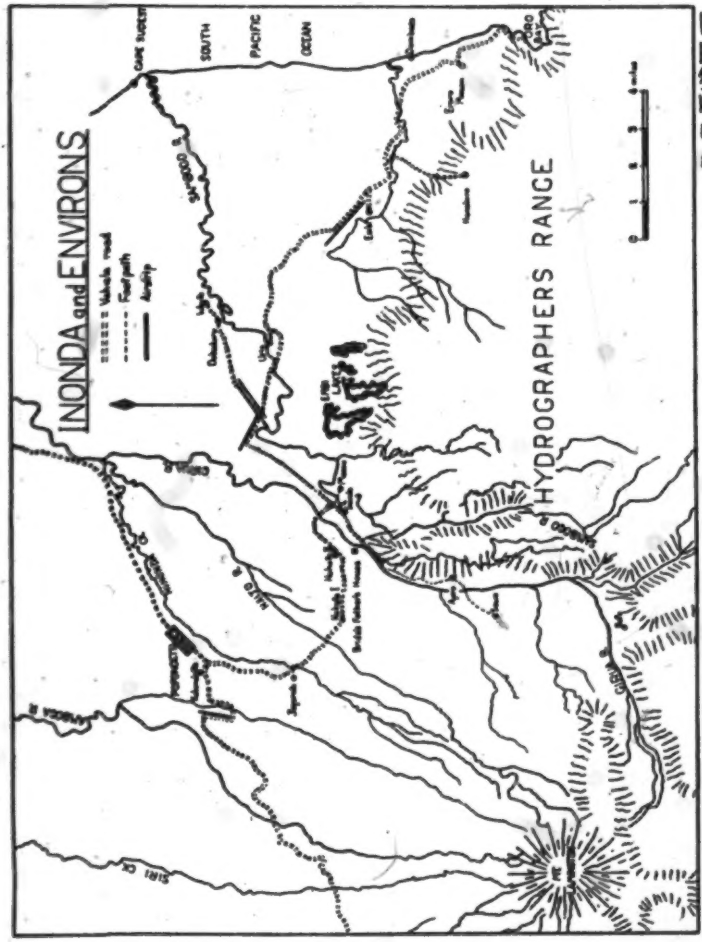

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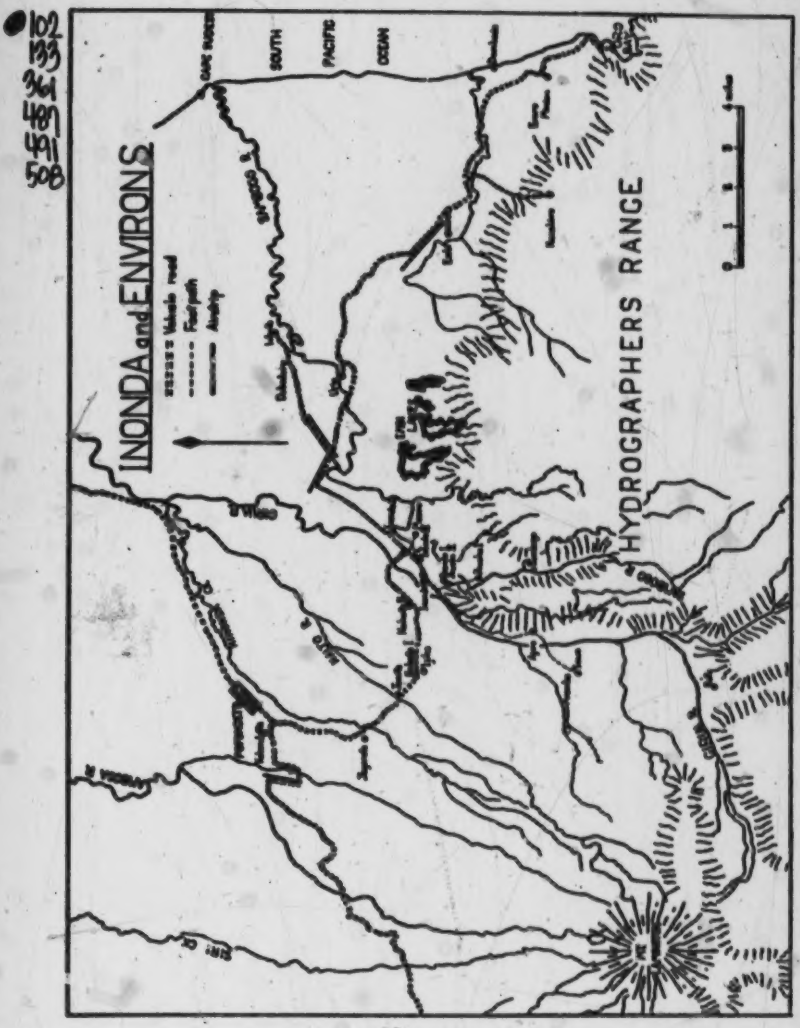
14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda



14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda

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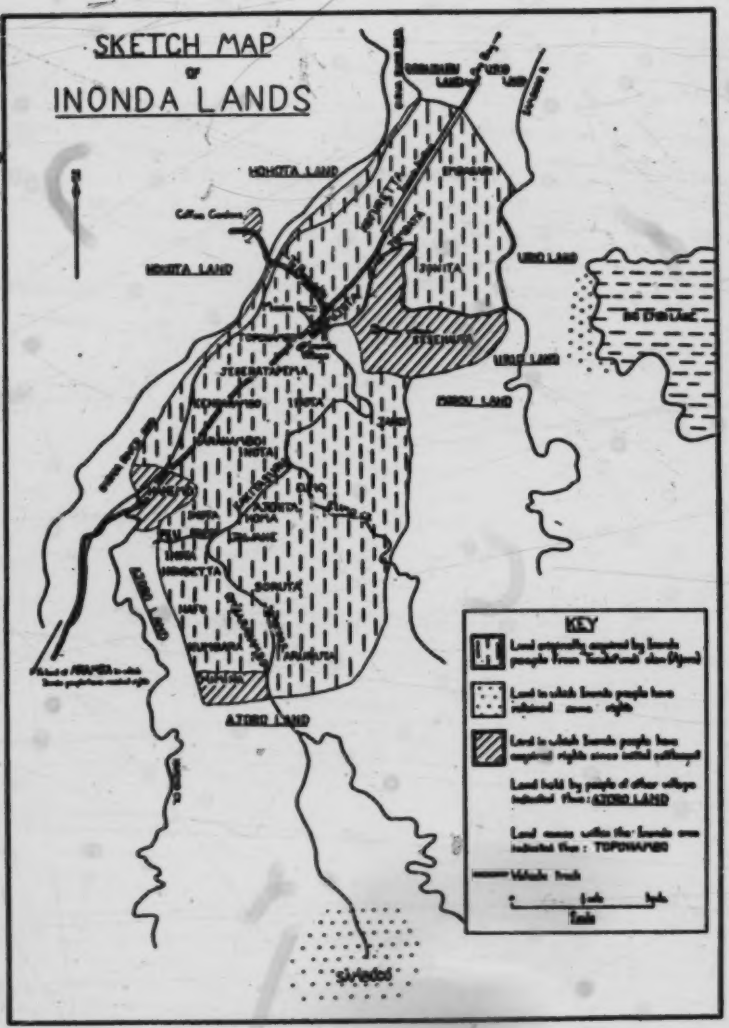

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda

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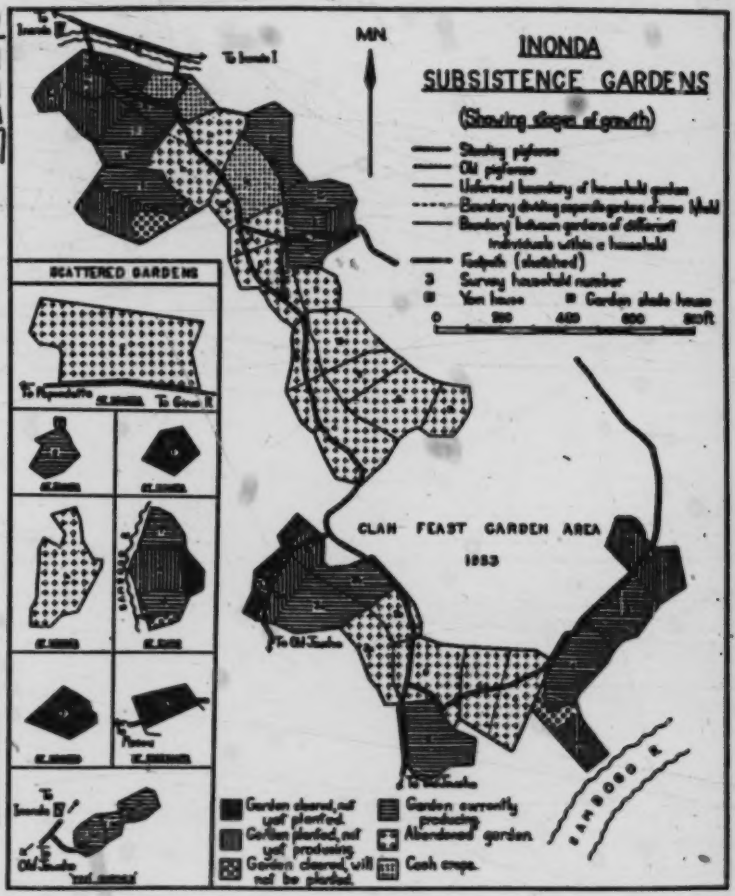

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Inonda

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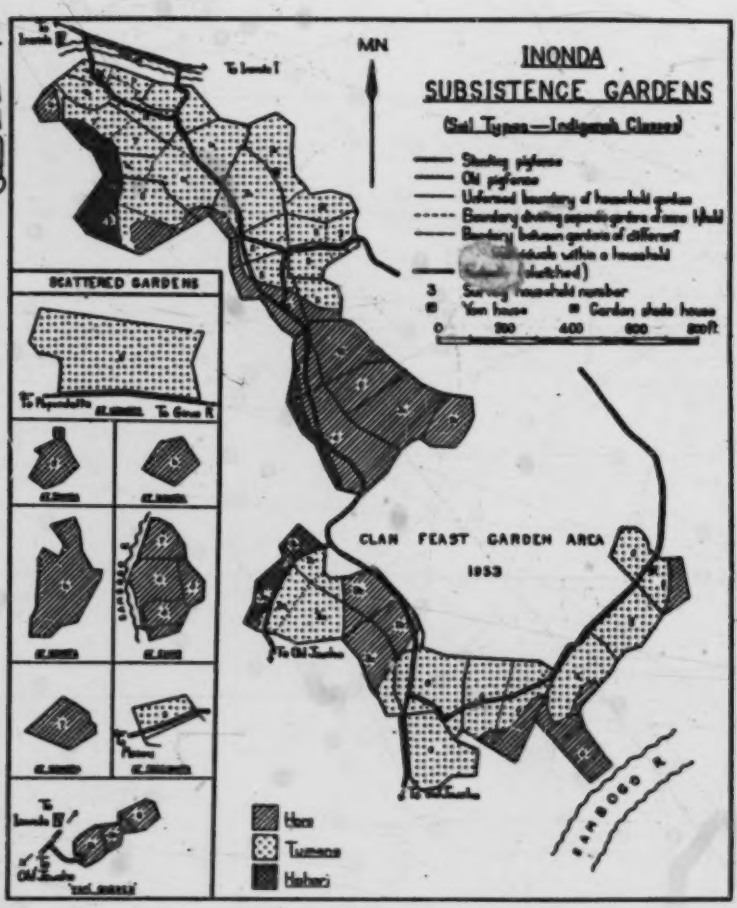

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda

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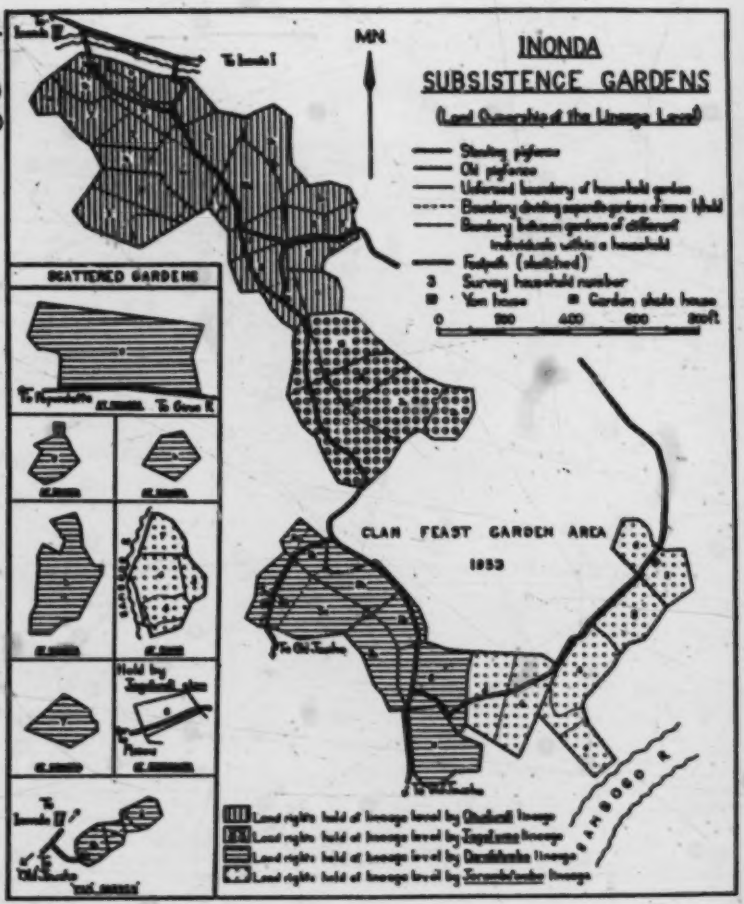

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

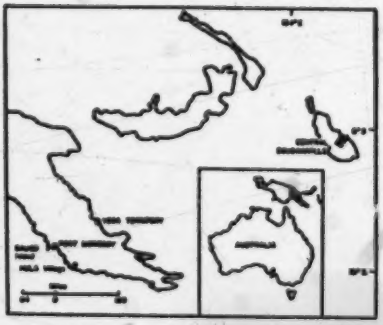

Fig. 1. Location of the three case studies

[P.4-A]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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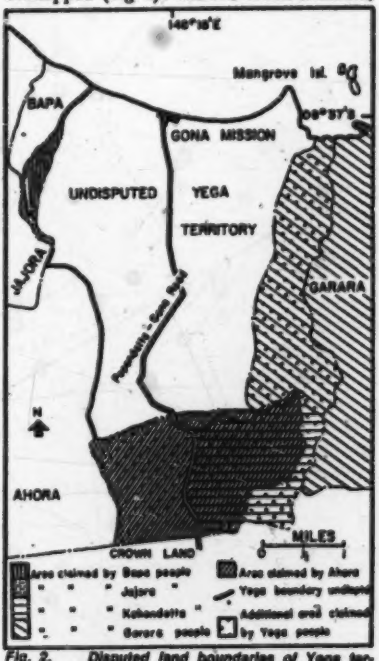

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

[P.6-A]

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

(P.7-8)

[TEXT CONTINUED ON PAGE 8-8]

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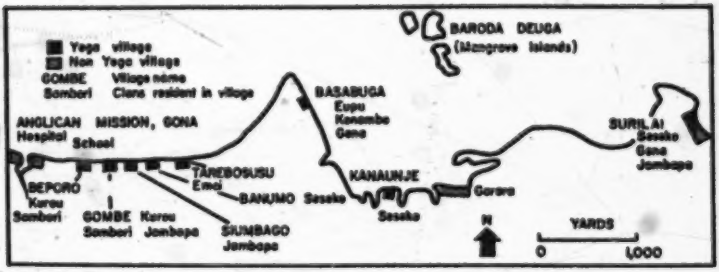

[P.12-C]

Fig. 9. Settlement pattern of the Yega in 1960

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Fig. 12. Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11

(P.14-A)

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

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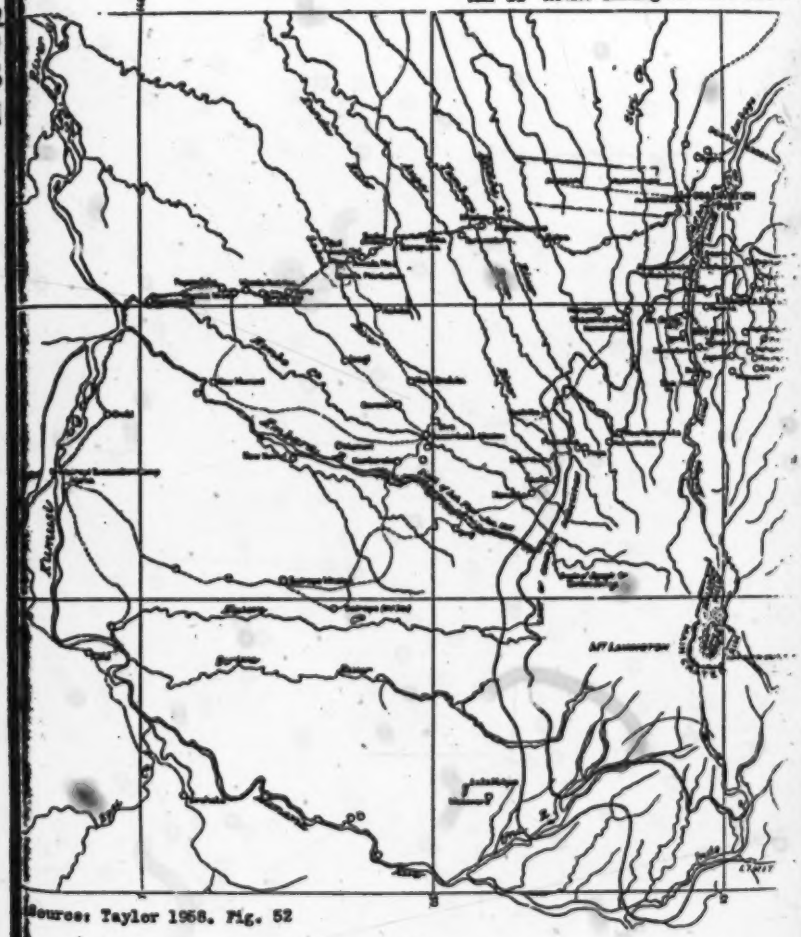
MAP II Mount Lamington Volcanic

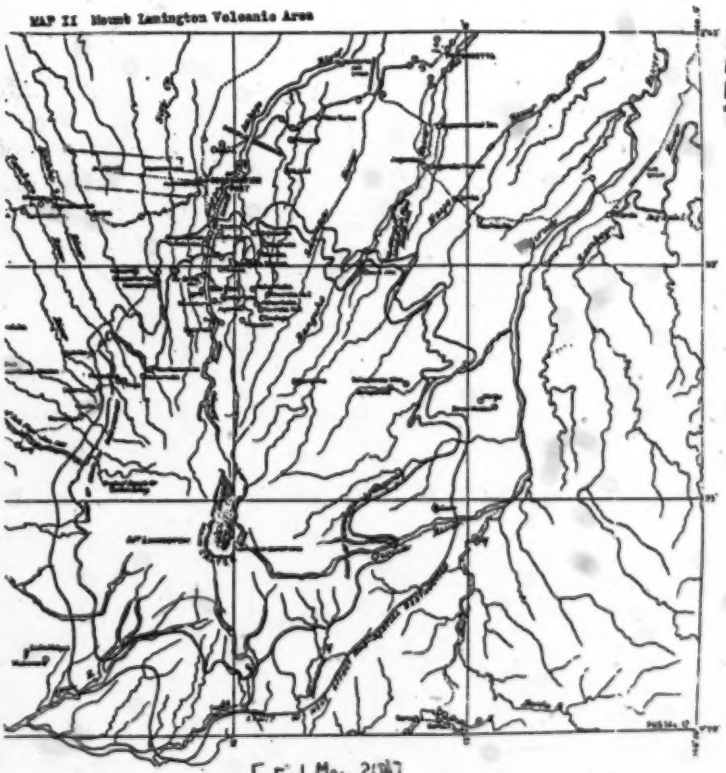


Source: Taylor 1958. Fig. 52

[End Map 2(A)]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

MAP II Mount Lamington Volcanic Area



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[End Map 2(B)]

14: Crocombe & Hogbin E-5 (no date) 1963 OJ23 Orokaiva OJ23
Inonda

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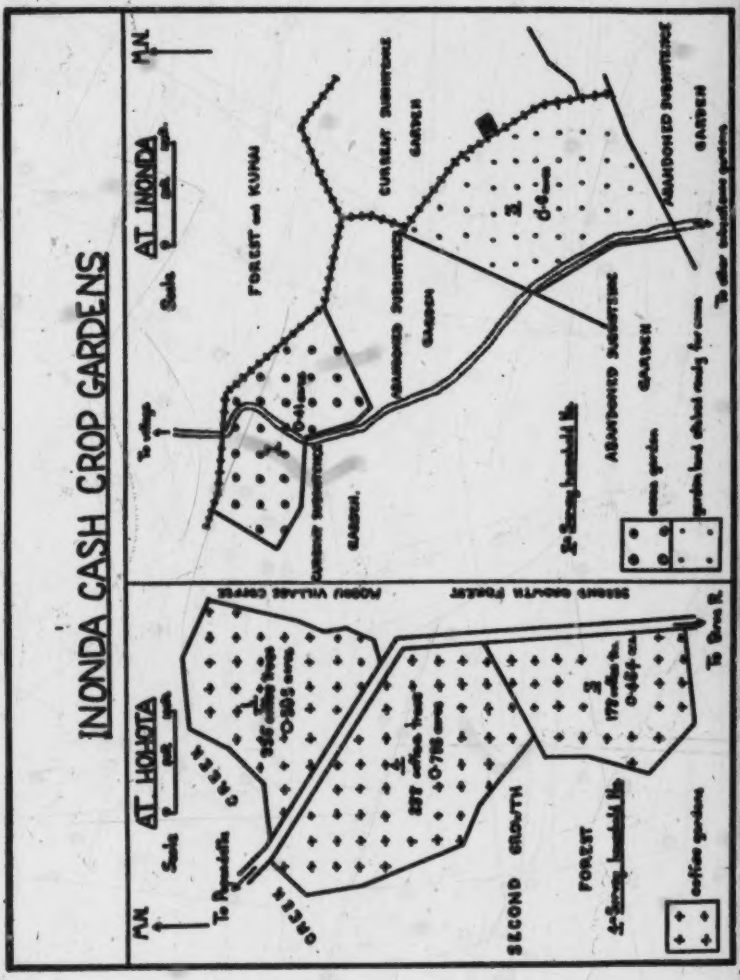
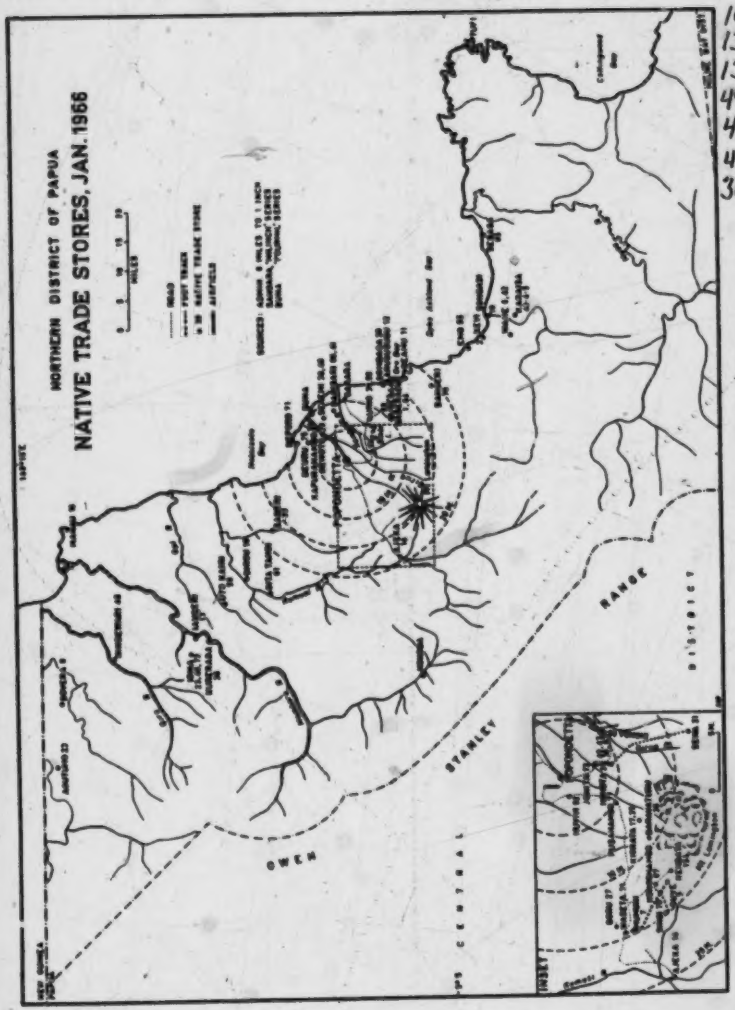


16: Oostermeyer & Gray U-5 (1965-1966) 1967 QJ23 Orokaiva QJ23



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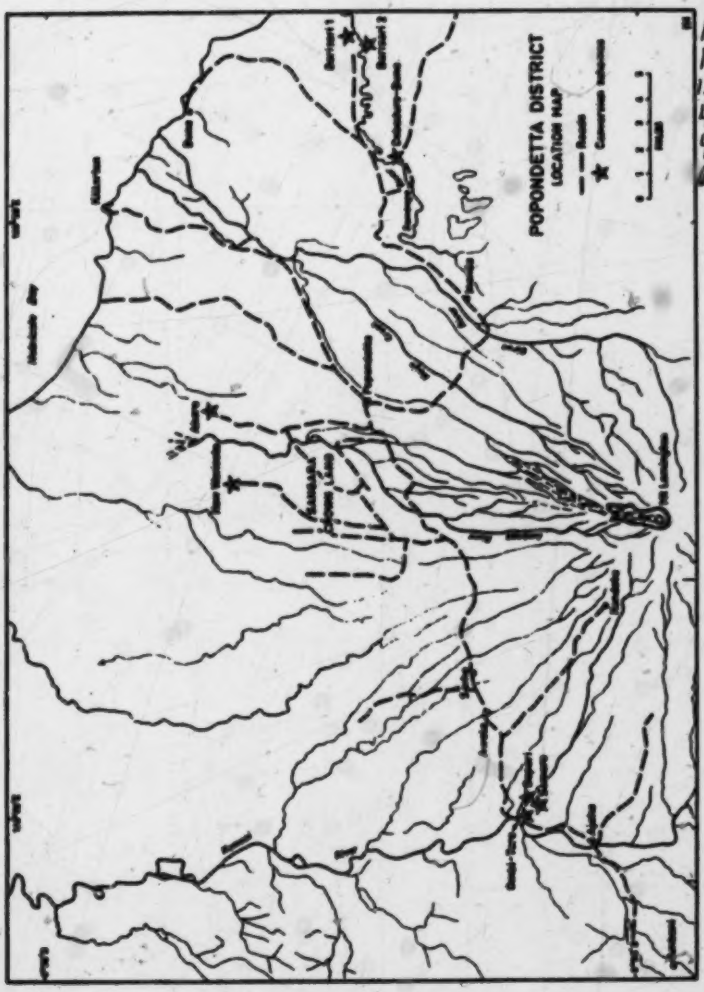

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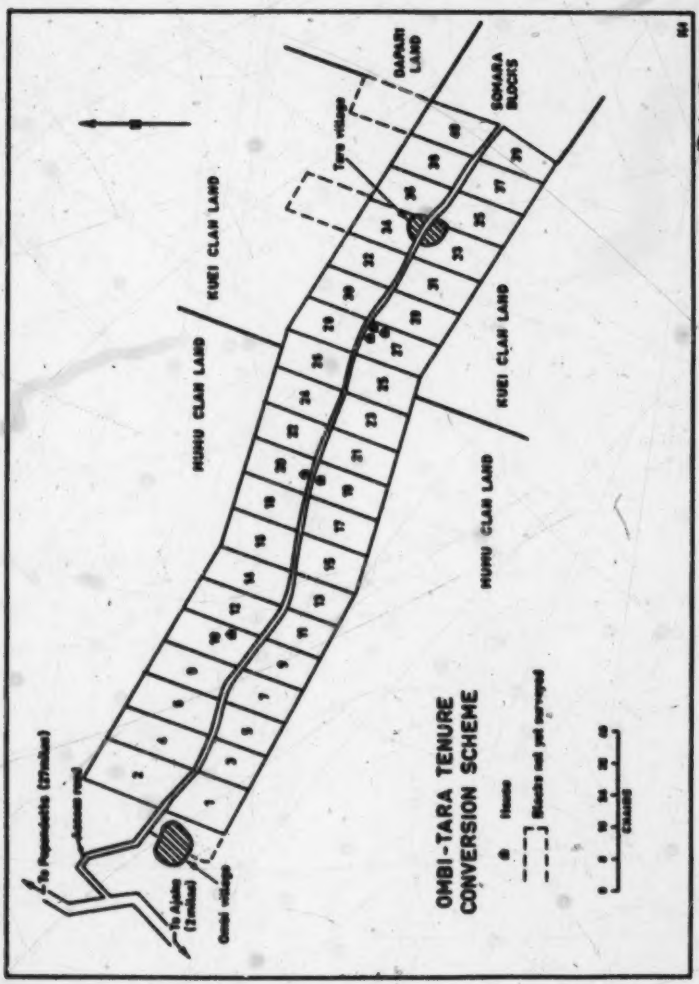

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[Ed Map 1]

Boundaries of Northern District

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Map III

Source: Rimoldi 1966: 82

[End Map 27]

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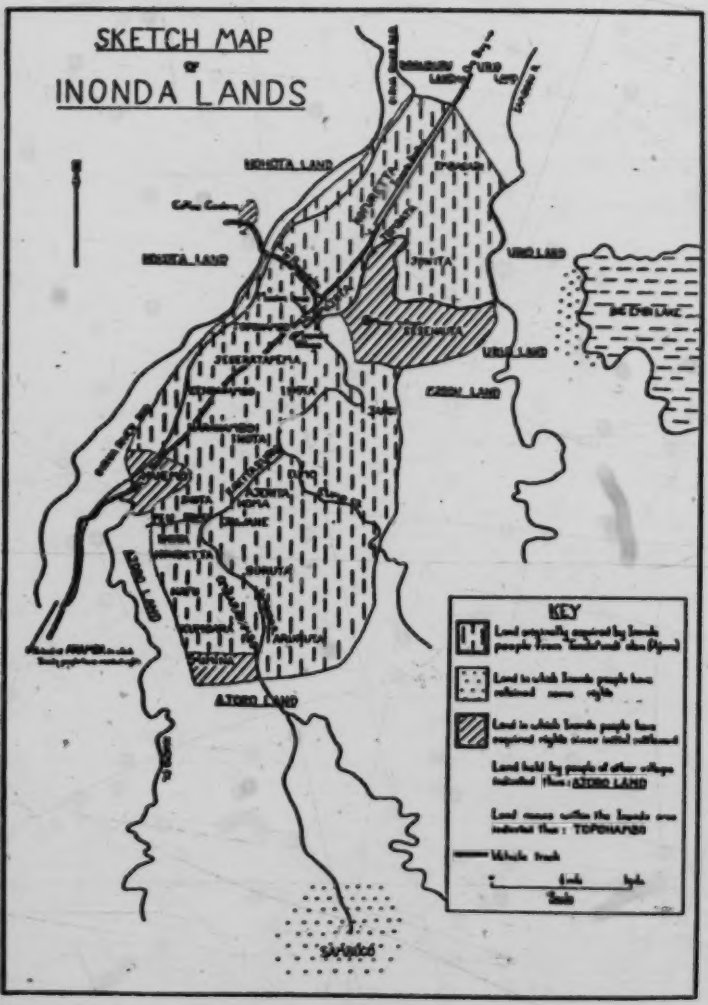
22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

MAP IV



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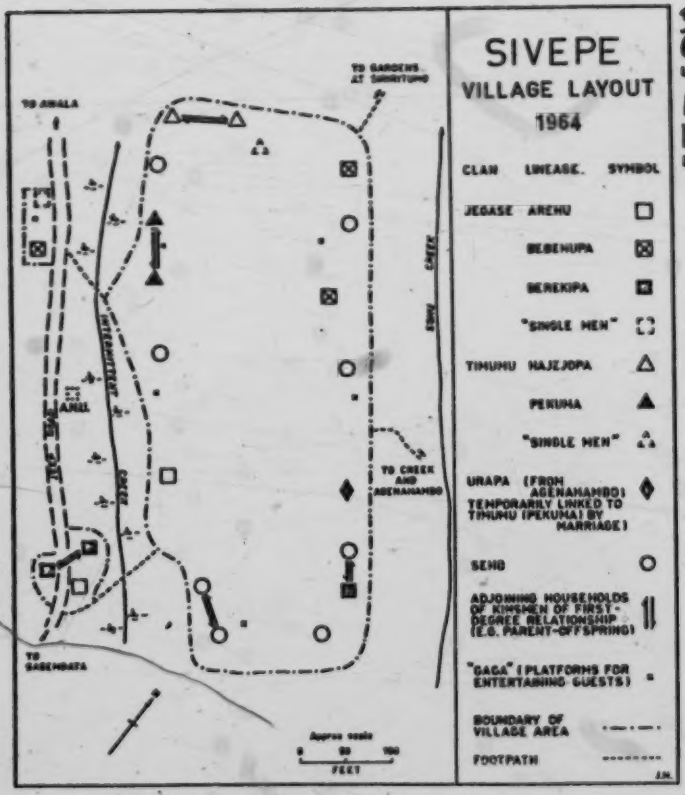
Source: Crocombe & Hogbin 1963 : 105

[End Map 4]

Map V



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Source: Waddell & Krinks 1968: 38

[End Map 5]

Map VI
Plan of New Sivepo

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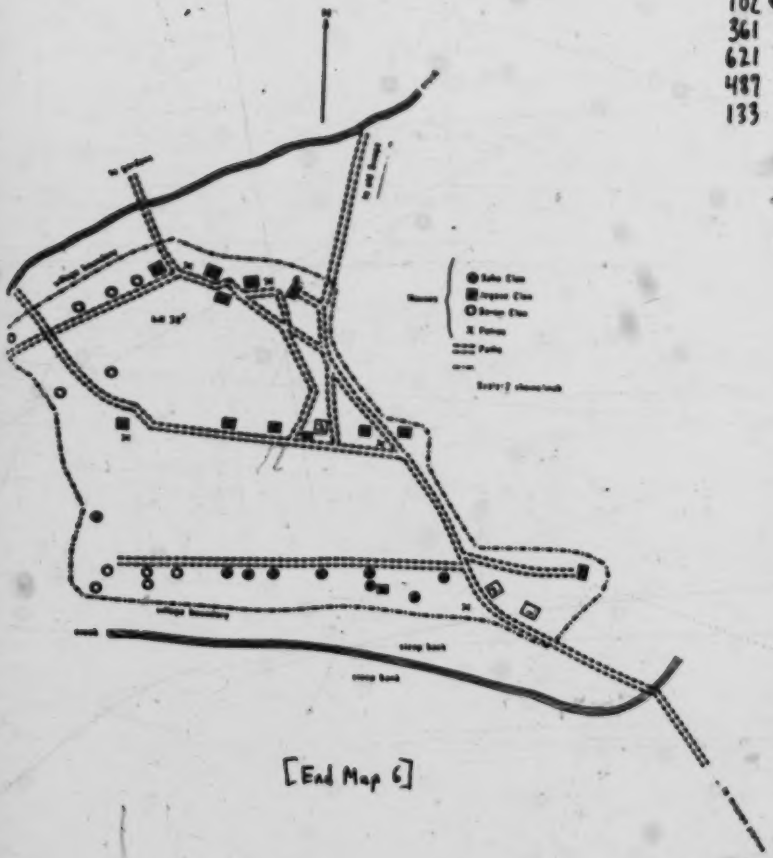
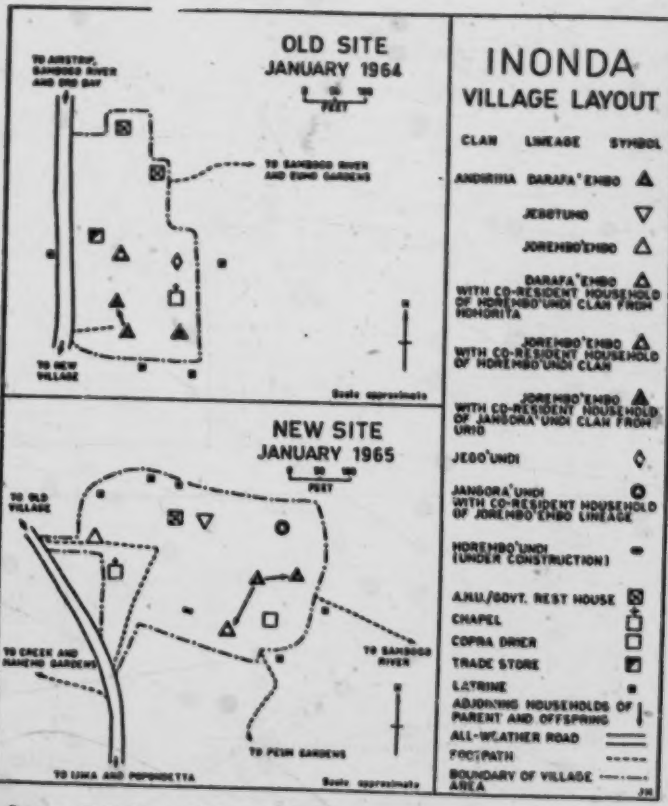


[End Map 6]

Maps VII and VIII



Source: Waddell & Krinks 1968: 84

[End Map 7]

Map X

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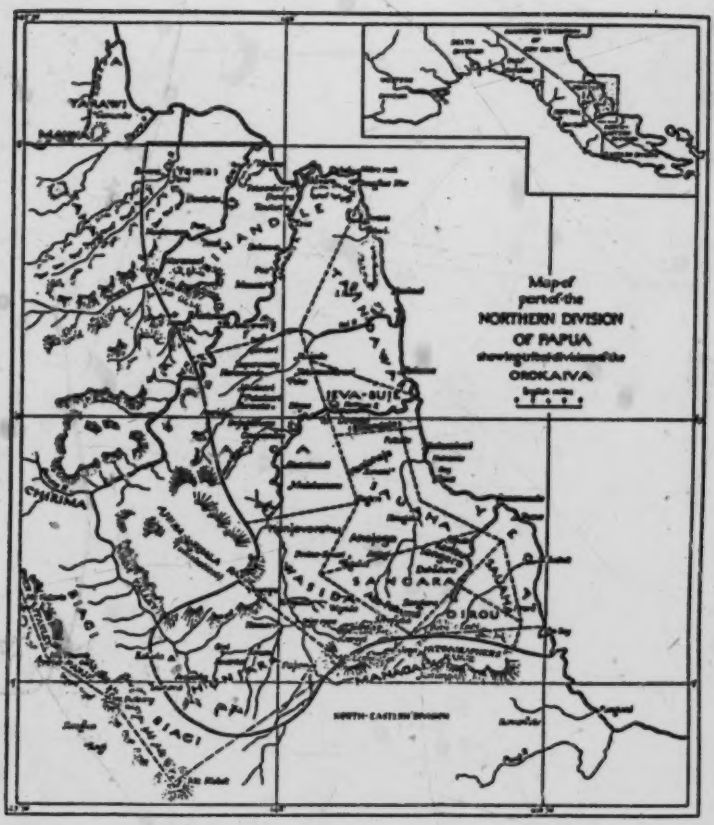
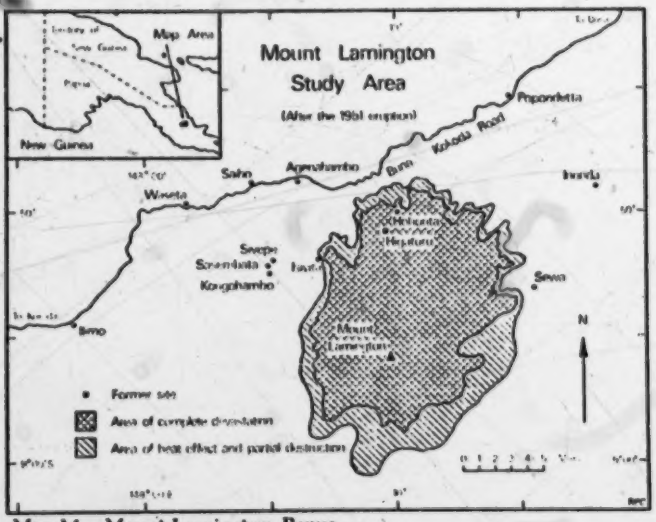


Source: Williams 1930

[End Map 9]



Map 14. Mount Lamington, Papua.

survivors, established camps to house them, and set up a volcanological observation post. Acting on technical advice that further explosions were to be expected, the administration at once restricted access to a fairly wide area surrounding the crater, thus forbidding most of the fugitives to return to their homes. It was at this stage also that the administration called in two anthropologists, Felix Keesing and Cyril Belshaw, for advice on what should be done with the now homeless population.[2] Shortly after the two anthropologists left the scene in May 1951, volcanological studies indicated that the active, paroxysmal stage of activity of Mount Lamington had ceased and hence that a large part of the restricted area could be resettled. In March 1953, it was possible to reduce the restricted area still further, to a circle of 2 miles surrounding the crater. As a result of these events, virtually all arable land in the district was in use when I visited in 1966–1967. There were no displaced communities in the proper sense of the word. There had been movements of villages from the crater area to consolidated settlements in the vicinity of paved roads; but here convenience

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo oramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

---

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Iviuru, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timunu, the second clan represented in our sample, are members of 2 lineages, Pekuna and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a locality deriving its name from a prominent local natural feature - [103] often a tree or a grove of trees, hence Korinaguzu or Korinaturu. [128] For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 All land constituting territory of the Jegase, Timunu or others [428] in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated.

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3 illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In 1952-3 occurred the major amalgamation of dwellings into Beporo [166] village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew 161 rapidly. Table 4 shows the estimated distribution of population 162 [TEXT CONTINUED ON PAGE 42]

Table 4

Distribution of total Yega population by villages in 1960, 1962, and 1964

361 162 103 161

	Village name	1960 estimated	1962 November	1964 July
A.	Coastal			
	Surilai	60	52	61
	Niniyanda	44	9	5
	Kanaunje	15	17	11
	Basabuga	17	19	14
	Tarebosusu	7	10	Nil
	Banumo	14	8	10
	Gombe	19	15	19
	Siumbago	9	13	Nil
	Beporo	335	275	164
	Gona Mission	7	6	18
	Subtotal	527	424	302
B.	Inland			
	Gatara	6	6	6
	Konje	Nil	6	97
	Otobejare	Nil	8	13
	Imangada	Nil	3	8
	Mumburada	Nil	17	47
	Ononda (D.A.S.F.)*	Nil	5	1
	Ononda	Nil	41	66
	Binjapada	Nil	51	61
	Jamberoda	Nil	Nil	15
	Subtotal	6	137	314
	Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

Map IX

[End Map 8]

Source: Waddell & Krinks 1968: 34

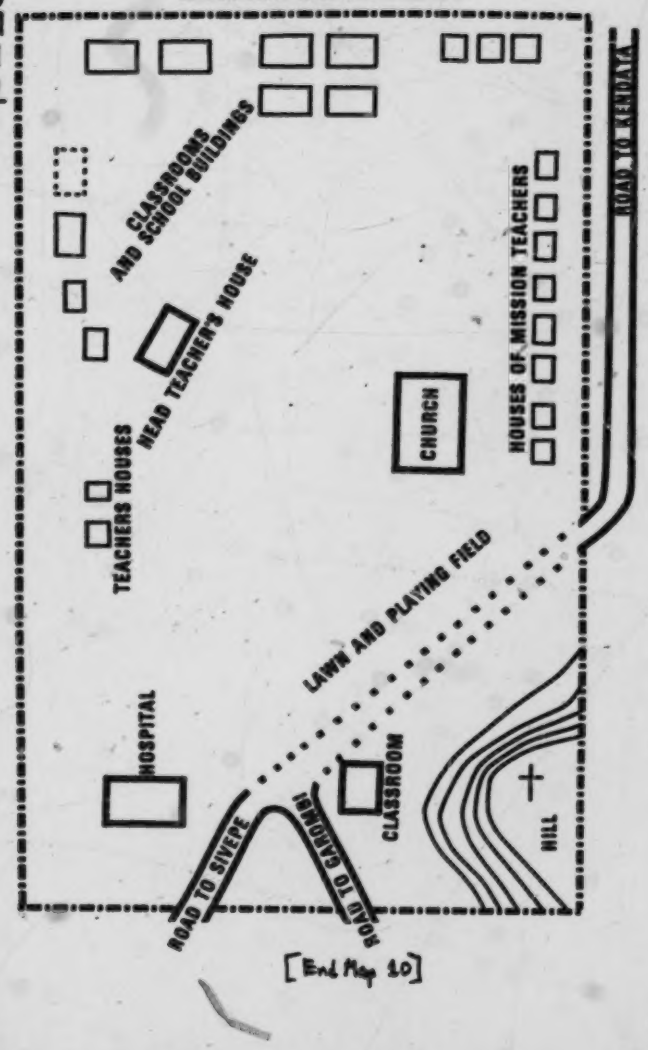
102
131
133
366
368
491
489

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map XI

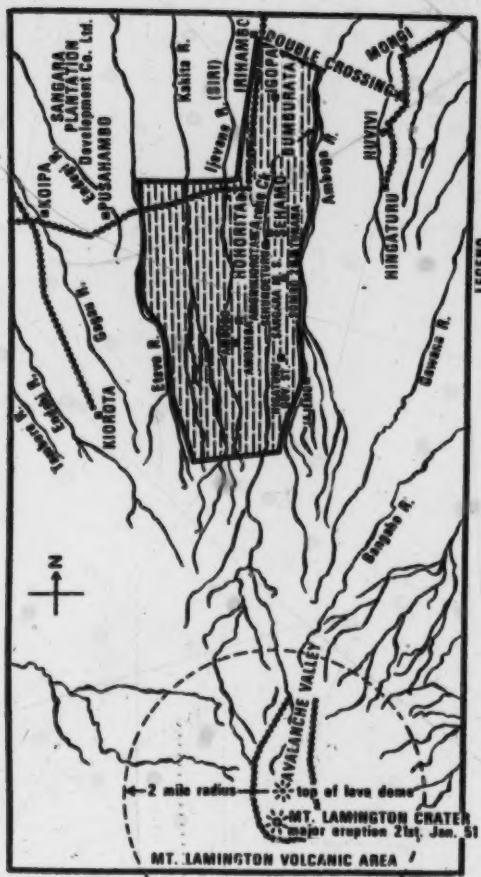
368
797
491
102

SASEMBATA MISSION STATION



[End Map 10]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington



Map XIII

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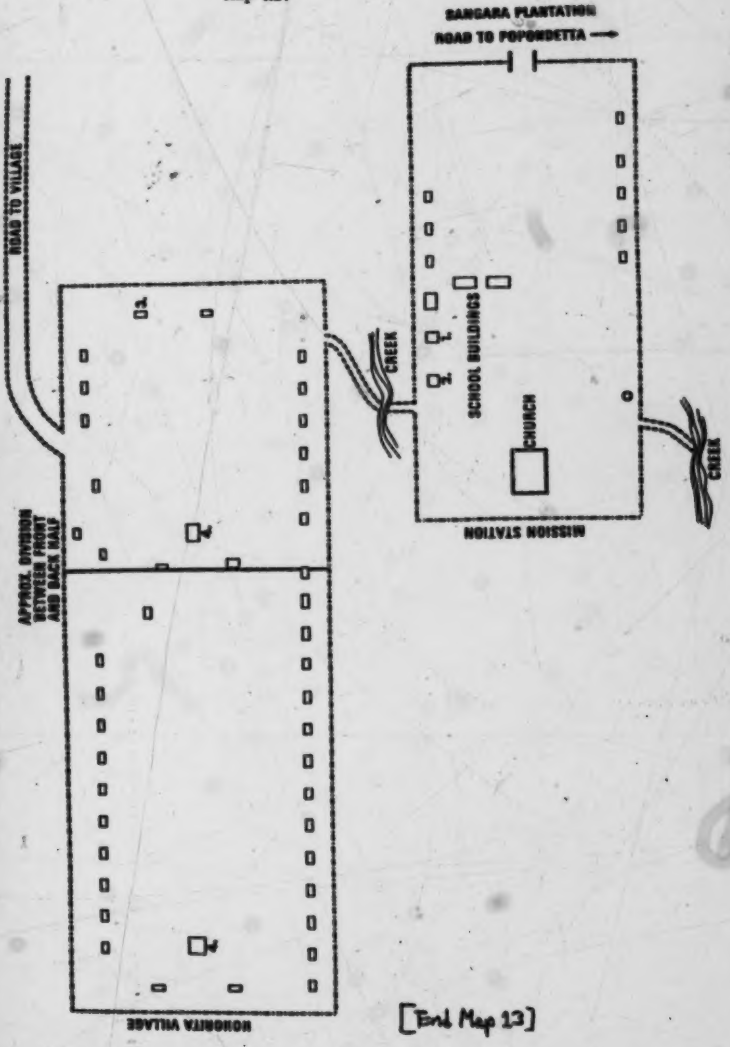
[End Map 12]

Map XIV



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102
361
133
491

[End Map 13]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

INDEX

Aguma (old warriors): in initiation ritual, 177–8, 180–1; sorcerer, authority and, 182
Ahihi (spirit; *see also* Spirit), 93
Aiga, language group and population, 15
Alliance (*see also* Quasi-filial alliance): dual through land, 103–4, 108, 191, 214; through pig feasts, 149; theory of, 220
Anger: 148; and bridewealth, 210, 216
Angerita ancestors and division of food, 55
Animal husbandry, 19
Anthropology, applied, 218
Arzha (grass area between rows of houses), 53, 201
Asaru (meeting platforms), 23
Arboriculture, 22
Areca (betelnut; *see also* Coconut-betelnut), 165
Ariri (wild world), origin of, 141
Arts, plastic, 25
Asymmetry, 187
Avoidance of harm, as object of exchange, 85
Avunu (uphill), 201

Ba ikari (to give taro), defined, 135
'Baby in the stick' (*meni be*), 93
Baigona cult, 35
Bako jape (taro-being; ancestress; *see also Jape bako*), 117, 134–5
Baksheesh (extra gifts; hand-outs) system, 72–3
Bande (houses), 23
Barnes, J. A., 100, 215, 226
Barth, F., 3, 223–5
Bateson, G., 47
Beaver, W. N., 178, 188
Bellah, R., 145
Belshaw, C. S., 47, 79, 97, 201, 223
Benson, J., 51, 79
Bere (cuttings from plants), 115, 116
Berndt, R. M., 89
Betelnut (*areca*; *see also* Coconut), 165; exchange of, 31; myth concerning, 166; ritual use of, 166; sharing, 150–1; symbolizing sexual exchange, 173
Bi (penis; term of address for sisters-in-law), 173
'Big man', form of leadership, 133
Bilateral marriage, 199, 209
Binandere, language group and population, 15
Bivese (heap of weeds), 114
Blau, P., 3, 5, 10, 58, 61, 62, 85, 223–4
Body (*humo*), 93–4
Bohannan, P., 5
Boudon, P., 8, 227
Boundary systems, 8
Bridewealth (*idorobu*) as element of expiation, 158; African type, 209; forms of marriage and, 197; sister exchange and, 199
Brookfield, H. C., 13, 45; and P. Brown, 89
Brother-in-law (*dambo*), 165
Burridge, K. O. L., 47, 70, 110, 148, 219, 220, 226

Cargo, gift of White technology, 70
Cargo ideology (*see also* Millennial movements and *Iji eha*), 107
Chants, at feasts, 151
Chinnery, E. W. P. and W. N. Beaver, 15, 33, 177, 181, 183; and A. C. Haddon, 51
Chomsky, N., 226
Christian church, 35, 77–8; receiving *iro* from, 69
Christianity (*see also* Jesus Christ), 66, 76
Clan (*iavo wahai*; *see also* Plant emblems); 193, 196; affiliation and land, 103; boundaries, 96; 'emblem groups' and, 9; exchange circuits and, 132; fusion of, 200, 212–3; lineage versus, 194; membership of women in, 209; migration of, 200; names of, 196; segments, 197
Clothing, 23
Coconut-betelnut: characteristics of, 163; gift constraint and, 191; metaphorical use of, 170–1; myth of, 167–9; 215; ritual use of, 164–6, 170–1; as symbolizing sexual exchange, 173
Coffee crop, 22

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

● 104 Cohesion, principle of, 113
Colonial government, Australian: 66–7; development policy, 71; ideological commitment to, 73
Commensality: taro as a symbol of, 112, 124; versus co-residence, 126
Communication systems: 8; exchange and, 161
Communion (*see also* Ritual): as culmination of *iji eha*, 78; expiation and, 128; feast as form of, 57; as model of sacrifice, 146–8
Compliance, as object of exchange, 85
Componential analysis, of kinship terminology, 203, 205
Configurational approach and method (see also J. Pouwer), 3, 220, 225, 226
Co-residence: commensality versus, 126; marriages between local clans and, 200; social strain and, 201
Corporate groups: 108; constraints, 192; exchange systems and, 191, 215, 222; extended family and, 95–7; *hae* and, 184; land transactions within, 95; non-kinship based, 113
Courtship, use of betelnut in, 166–7
Craig, R., 159
Crocombe, R. G., 179; and G. R. Hogbin: 15, 19, 20, 31, 33, 40, 46, 100, 105, 108
Cross-cousin marriage, 100
Cultivation cycle, 94
Cunnison, I., 10

Dambo (brother-in-law): betelnut myth, 167; exchange cycle, 165, 171
Death: obtaining *ivo*, 164; transmigration of souls, 92–5
Dema (beings living in original time): 64, 151; exchange of, 157; exchange relationship with, 79; identification with for a feast, 151; *iji eha* ideology, 218; origin of *ivo* and, 68–9; pig-hunting and, 143; pig sacrifice and, 145; relationship to Jesus Christ, 68–70, 76, 107; as social institution, 62–3, 67; of taro, 117; taro gifts and, 122
Demigods (see also *Dema*), 62
Descent groups: 225; in land transfers, 96; vertical ordering principles and, 220
Development: *dema* as origin of, 71; economic, 74; as magic, 75; millennial movement and, 218; policy on, 36
Di (headdress): acquisition of, 31; description of, 26; feathers and, 184
Dialectic, in exchange theory, 162
Direct exchange: 134; between villages, 136; marriage as, 203, 213; with mission, 77
Division of labour: 27, 28, 30, 46; sex and, 91
Domestication of pigs, myth: 141
Donor-recipient: contradiction of, 167; in exchange, 161; filial relation of, 104; prior relation of, 170
Dorobu (bridewealth; *see also* Bridewealth): 209; as cycle of reciprocity, 214; items of, 209; in payment for anger, 210; pig sacrifice and, 215; as purchase marriage, 198; sister exchange marriage and, 207–8; social relations and, 211; symbolic equivalence with bride, 210
Dowries, land, 101
Downhill (*vearí*), 201
Du (sibling): giving of sisters by brothers-in-law, 171; real and classificatory siblings, 197
Du ate (female sibling), 115
Du bite (male sibling), 115
Dual organization: 200; clan fusion and, 313; development of 213; marriage exchange and, 202
Dumont, L., 220
Durkheim, E., 159

Ecology: basis of exchange, 60; level of exchange 172–3
Economic principle, social relations, 224
Education, 37
Elementary structures, 192–3
Elementary system of kinship, 207
Embavo (misfortune), 168
Embehi (a spirit): 151, 177, 183, 193; represented by *hambo*, 184–5
Emblem groups (*see also* Plant emblems), 9, 103
Emboqi (inter-clan warfare), origin of, 52
Embogo (sham fight), 54
Enda (land), 90
Enda mama ('Father of the ground'): in land transfer, 94, 96, 98, 109; becomes true father, 104
Epe (mother's brother), 179
Equilibrium theory, situational analysis, 227
Erikson, E. H., 188
Esa (homicidal emblems), 177
Eti (string bag), 141
Europeans, population of: 15; early relations with, 33, 71
Evans-Prichard, E. E., 29, 81, 86, 145, 159
Exchange (*see also* Direct, Generalized and Restricted exchange; objects of exchange; Partners): of betelnut, 165; chain of, 134; cluster, 136; corporate group and system of, 191; cycle of, 6, 59, 60, 64, 68, 75, 171, 225; diachronic, 172; ecological basis of, 60; ecological level of, 172–3; economic versus social, 128; ideology of, 66, 81, 110; intrinsic and extrinsic, 223, 227;

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

levels of, 111, 136, 171, 186–7; logical priority of, 162; marriage rules, 113; *mina*, 184; with mission, 77–8; mythical, 163; network of, 31, 112, 119–22, 192, 217; of *otahu*, 176–7, 184; of paired plants, 163–4; partners of, 58, 85, 186, 191; relations and social relations, 49; of sanctions, 155; sorcery and, 110; of subsistence products, 27; synchronic, 173; synthetic characteristic of, 167; theory of, 10, 161–3, 219–226; White authorities and, 217
Exogamy, rules of, 197, 205
Expiation: in exchange cycle, 157; as object of exchange, 146–7; rites of, 138
Explicans, exchange as, in ideology, 110
Exogamy rule, extension, 105

'Father of the ground' (*enda mama; see also Enda mama*): 94
Feast leader (*pondo kiuri embo; see also Pondo kiuri embo*): 54, 149
Feasts (*see also* Communion, Ritual, Sacrifice): 52; abundance for, 27–9, 212; behaviour at, 152; distribution of food at, 152; economics of, 27; as exchange, 122, 153–4; form of communion, 57; inter-village, 139; mortuary, 164–5; myth concerning, 52, 59, 211–2; planning of, 149–50; reciprocal, 56; relationship between partners at, 122; ritual of, 63; in war-peace cycle, 156
Feathers: 184; exchange network and, 31
Female sibling (*du ate*), 115
Festivals, cycle of, 26
Firth, R., 5, 47, 69, 220, 224, 226
Forgiveness: as object of exchange, 85; at pig feasts, 148
Fraternal strife, 98

Gege (shelter), 115
Garden (*pure*): 90; opposition of bush and, 116; well -being of soul and, 92–3
Geertz, C., 22
Genealogical pattern, 206
Generalized exchange: clan fusion and, 212–3; combined with restricted exchange, 10, 137, 203, 213, 225; complex, 213; direct and, 136; marriage as, 10, 136, 193, 203; matrimonial destiny and, 207
Gentzen, G., 173
Ghosts (*sovai; see also Sovai*): 90
Gifts (see also Pig; Taro): 66; between households, 119; between non-kin, 47–8; exchange and barter of, 32; exchange cycle and, 157; *hambo* as, 185; *iji eha*, 76; of land, 109; Mauss, theory of, 167; as mediating element, 109; metaphorical and metanymic, 170–1; overcoming *isoro*, 56; raw/cooked, 152; role of wife and, 119–20; as sacrifice, 86; of staple foods, 111; taro versus pig, 144
Gluckman, M., 66, 181, 222
Gouldner, A. W., 10, 61, 62, 224
Greetings, Maori versus Orokaiva, 121

Hae (plant emblem): agnatic groups and, 196; corporate groups and, 184; lineage of, 196–7; identity symbols and, 184; uses, 196; transmission of, 176, 207; transmitted in patriline, 184
Hambo (ornaments): 26; acquisition of, 31; ceremonial context, 184; depersonalization of wearer, 185; distinguished from *otahu*, 175–6; part of exchange network, 31; money substitute, 66; as object of mediation, 186; primal lack of strife and, 185; storable wealth, 186; representing *embahi*, 185; transfer of, 185
Hamburata, location, 65
Hamo (body), 93–4
Harau (garden houses), 25
Hau, Mauss' theory of gift, 161
Hingi (piper betel), 31
History, Orokaiva: 35, 67
Hobbes, T., 52, 55, 65, 89, 223–4
Hogbin, I., 101
Hohorita, 42–3; knowledge of myths and traditions in, 70
Holia (exchange between non-kin; gifts), 47–8
Homans, G. C., 3, 5, 61, 85, 223–4
Homicidal emblems (*esu*), 177
Horticulture, 20
House (*bande*): description of, 23; design and changes in, 24; location of in chains of exchange, 133
Hubert, H., 7; and M. Mauss, 86
Hunting techniques: 9; in Totoima myth, 123
Husserl, E., 4

Identity change; disguise, 151; *hae* and *otahu*, 175, 184, 191
Inheritance: 193–4; clan membership and, 209; patrilineal and non-patrilineal, 96–7, 100
Iji eha ('a new day'): 76; ideology of, 80, 217; concepts of *dema* and, 218
Iji matu (tales of olden times), 68
Inguri (respectful attention), in exchange cycle, 74

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

104

Initiation: conferring of *otohu*, 177–80, 183; disguise, 151; hearing of *embahi*, 183; ritual (*kogumbari*), 177–9
Inonda: 40–1; land, 105; rainfall, 46
Inter-village feasts, 139
Intimacy, symbolized by taro gifts, 112–3, 127
Isivita ancestors, food division as origin of, 55
Isoro (inter-tribal warfare): creation of, 52; in the exchange cycle, 59, 157; as expression of mutual anger, 54; overcome state of by gifts, 56; replaced by peace, 76; state of, 156
Ivo (strength): equal to that of ancestors, 71; communicated through coconut, 164; from eating pig meat, 142; from Jesus Christ, 70; homologous with reciprocity, 159; compared with *mana*, 69; mediation, 148; millennial movement and, 70, 219; as object of exchange, 147; obtained through communion, 148; through name, 78; through sharing of pig meat, 144, 152–4; subjectivity of analysis of, 161; Totoima as origin of, 6, 55

Jape bako (ancestress; Taro-being; *see also Bako jape*): 117, 135
Jarvie, I. 173
Javo be (name at birth), 78
Javo isape (nicknames), 78
Javo wahei (clan; 'one name'), 196
Jegase clan, labour migration and, 45
Jensen, A. E., 62
Jesus Christ, as *dema*, 68–70, 76, 78, 107

Kapi (coffee), as money tree, 107
Kessing, F. M., 79
Kelman, H. C., 78
Kin group solidarity, 136
Kinship: plant emblems and, 206; residence arrangements and, 208; terminology, 203–5
Koiari, as analyzed by C. Levi-Strauss and F. E. Williams, 207
Kokoda ancestors, food division as origin of, 55
Kongohambo, 69
Kogumbari (initiation ritual; *see also otohu*), 177
Kowari (planting; burying), 91
Krige, E. G. and J. D. Krige: Lovedu, 216
Kuru (initiation dance), 177

Land (*enda; see also* Mediating element and Object of mediation): as basis for social support, 109; borrower-lender relations and, 103, 105–7; community and, 102–3; corporate groups and, 97–8; gifts of, 100–1; 103–4, 109, 214; inheritance of, 105; as mediating element, 89; patrimony, 95–100, 209; rights to, 92, 95, 105–6, 108–10; tenure and title improvements, 36, 88; transmigration of soul and, 92–5
Land transfers: categories of, 89; constraints on, 191; partners in, 101, 103; with patrilineage, 96; quasifilial alliances and, 105, 108–10; uxorilocal marriage and, 102
Lane, R. B., 159
Lawrence, P., 89, 96, 218; and M. J. Meggitt, 160
Leach, E. R., 86, 226
Leadership forms (*see also* 'Big man'), 133
Levi-Strauss, C., 3, 10, 86, 87, 88, 134, 159, 161, 162, 167, 170, 174, 192, 193, 203, 209, 219, 220, 224
Lineage: clan segments, 194; extended family and, 97; *hee* and, 196–7
Loboki (see also Bridewealth, African form), 209–10
Local government council, 37–8
Logical operator: 162

Magic (*see also* Sorcery): use of betelnut in, 165–6; development as, 75; formulae of, 75; Malinowski and, 173, 221; mythical charter and, 221–2; as object of mediation, 87, 215; *puripuri* as form of, 153–4; traditional powers of, 68–9
Mair, L. C., 35
Male-female flutes, 183–4
Male sibling, 115
Malinowski, B., 5, 47, 167, 173, 221
Mambare, food division as origin of, 55
Managalese: 116, 123–4; population, 15
Maori: 67; greeting, 121
Marriage: arranged (*zimbo*), 199; bilateral cross-cousins, 203; breakdown of, 90; by capture, 158, 197; by choice, 213; elementary system of kinship, 207; elopement, 197–8; exogamy, 197; positive rules of, 219; practices, cyclical pattern of, 212; preferential, 198–9; preferential, bilateral cross-cousin, 198–99; prohibition, randomizing effect of, 207; purchase, in exchange for *dorobu*, 207–8; rights and obligations, land, 89–90; reciprocating pairs, 207; system of, 10, 192; uxorilocal, 102
Marriage exchange (*see also* Exchange: Complex, Generalized, Restricted): 10, 188; cyclical, 211; direct 202–3; generalised, 193; model of, 113; pigs

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

and, 143; relations of, 50; restricted, 193, 203; sister exchange (*mine*), 165, 169, 171, 173, 198–9, 207–8
Marwick, M., 63, 227
Matriline, *otohu* transmitted in: 184
Mauss, M., 3, 5, 7, 10, 25, 47, 65, 145, 161, 167
Mead, M., 214
Mediating elements (*see also* Taro; Land): 58, 61, 85; effectiveness of, 62; gifts as, 109; as key to social structure, 114; land as, 95, 109, 110; meat as, 57; meat and hostility as, 80; relations with government and, 75–6; with Sumbiripa, 80; taro as, 126–7
Mediating links, establishing exchange cycle: 6
Mediation (*see also* Objects of mediation) circuit of cohesion, 113; elements of, 75; of *ivo*, 148; C. Levi-Strauss and E. Leach on, 87–8; magical aspects of, 161–2; in sacrifice, 86–8; social structure as web of, 10
Mediator, chain of: 134–6
Medicines (*siwo*), 179
Meggitt, J. J., 89, 159, 192, 226
Meni ahihi (spirit baby), 92
Meni be (real baby), 92–3
Migration: clans, 200; marriage system and, 214; patrikin fiction, 194; village size and, 18
Millennarian co-operatives, 226
Millennial cults (*see also Iji eha*): economic development and, 218; non-millennial cults and, 35; role of money and, 110
Millennial leader, mediator, 219
Millennial movement, object of exchange, 219
Mine (exchange system), initiation, 184; sister exchange, 198
Misfortune (*embavo*), 168
Models, transactions, 139
Moiety formation, 213
Monckton, C. A. W., 18, 33, 46
Money: and cash crop land, 110; cash economy and, 32; gift of *dema*, 70; ideological significance of, 107; millennial cults and, 110; as purchase subsistence, 67; substitute for *kumbo*, 66
Moral values, guardians of, 181
Mortuary feast, coconut in, 164–5
Mother's brother (*epe*): 177, 179; as mediator in initiation, 184
Motu, lingua franca, 76
Mount Lamington (*Sumbiripa Kanekari*), 13, 45, 51; eruption of, 36, 39, 79, 102, 149, 159; village topology, 201
Mundugumor, marriage 'rope', 214
Murray, J. H. P., 33
Music, dance and song, 26
Myths: 7; betelnut and, 166–8; domestication of pigs, 141; domestication of taro, 114–117; feasts, 56, 59, 211–2; as incomplete exchange cycle, 59; levels of, 168–9; 172–4; mother burying taro shoots, 91; pig, 139–41; pig-hunting, 143; pig-man, 141; primordial peace, 155–6; significance of taro, 11; structural homology of, 172; Totoima, 138, 147; warfare, origin of, 52
Mythical charter: 62, 174; betelnut-coconut, 215; cargo ideal as, 107; Christianity as, 76; Malinowski and, 167, 173, 221; magic and, 221; reinforcement of, 80–1; social institutions contradict, 173; as starting mechanism, 4, 162; for taro gifts, 122–4
Mythical exchanges, of male and female paired plants, 163

Nadel, S. F., 4
Names: 78; acquiring *ivo* through; baptismal, 78; of females, 208

O ohu (domesticated pig), 141
Objects of exchange: 61, 185–6; change of, 155; domesticated pig as, 142; expiation as, 147; information *ingari*, 74–5; as institutionalized social attitudes, 85; *ivo*, 147; repentance and forgiveness as, 61
Objects of mediation: 61, 173, 187; food products, 163; *kumbo*, 186; identified with donor, 161; land, 101, 103–4; millennial movements, 219; ornaments, 175; pig meat, 138; pig sacrifice, 147; positive and negative, 158; relationship with social structure, 215; rules governing, 191; sacrifice, 86–7; social benefits versus, 225–6; taro as, 111; women as, 187
Obligatory/preferential commitment to exchange system, 191
Oppositions: binary, 162, 186–7; of bush and garden, 116; in coconut-betelnut myth, 169–70, 172–3; human world-(*ariri*), 141; male-female, 170, 183; pig-man, 140–1; Totoima myth and, 172–3
Ordering principles: 221; Pouwer, 220
Ornament (*otohu*), 175
Orokaiva: bachelors' houses, 23; Bay, population of, 15; dance, 26; division of labour, 30; food, 18; history, 67; missions and, 46; myths explaining origins of, 51; social philosophy, 56

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

● 104 *Otohu* (emblems of moral virtue): behavioural constraints associated with, 191; conferral of, 178, 179, 189; as distinguished from *hambo*, 175–6; as embodiment of moral virtue, 180; in the exchange system, 184; given by mother's brother, 180; and *hae* as identity symbols, 184; *hae* pig and man *otohu*, 178; initiation ceremonies and, 177–9; ornament, as symbol of identity, 175; as name of flute, 183–5; purchase of with pig, 178; social status symbols and, 185; transmitted in matriline, 184; uses of term, 178, 180, 183; Williams' concept of, 178

Pairing of foods: 163
Panoff, M., 81
Partners (*see also* Exchange and *Quasi*-filial alliance): 85–6, 186, 191, 223–4; constraints of, 191; in development, 74–5; in feasts, 122, 153–4; *ivo* received from, 69; in land transactions, 101; preferential, 129
Paternity, theory of, 207–9
Patrifiliation, 100
Patriline, *hae* transmitted in, 184
Patrilineage, temporary group, 100
Patrilineal: descent, 194; ideology, 97, 99, 193; inheritance, 95–100, 105, 193–4
Patrimony: splitting of, 97, 98; holders of land, 105–6
Peace (*peka*): in exchange cycle, 156, 157; truce-making, procedure for, 54–5
Pekuma, 64
Phenomenology, 161
Pig (*see also* Garden): as domesticated *o ohu*, 141–2; eating of, 143–4; 191; establish positive reciprocity, 159; gifts for mediation, 142; sacrifice, 145–6, 157, 215; separation from man, 140; significance of pig-meat myth, 138; wild, domesticated interchangeability, 145
'Pig-man' (*see also* Totoima): 140; myth of, 141
Plant, H. T., 97
Plant emblem (*hue*): 156; clans and, 9, 193; group membership and, 175–6; land borrowing and, 103; marriage and, 197; pig sacrifices and, 146; sharing of, 206
Pocock, M., 81
Political authority, 67
Political system, model of exchange systems, 113
Pondo ba (feasting taro), 122
Pondo kiari embo (feast leader): description of, 54, 149; duties and authority of, 150
Popondetta, 13, 15
Pouillon, J., 227
Powwer, J., 3, 47, 220, 225, 226
Praxis, 162
Preferential marriage: 198; bilateral cross-cousin and, 199; clan fusion and, 213; Meggitt on, 192; rule and, 199; sister exchange and, 198–9; in taro exchange, 129, 131–2
Primal time: *demu* in, 151; in exchange cycle, 157; quarrel, 99
Proxemics, 8
Pundugo (variety of taro), 117
Puripuri (a form of magic; *see also* sorcery): 153
Pure (work; garden), 20, 90

Quasi-commensal, non-agnates, 191
Quasi-filial alliance, 105, 108–10

Radcliffe-Brown, A. R., 173, 225
Raglan, Lord, 98
Rappaport, R. A., 60, 89
Reay, M., 47, 81, 159
Reciprocating pairs: 213; fusion of, 214; of groups, 205; marriage and, 199–200, 203, 207
Reciprocity; as homologous with *ivo*, 159; negative, 214, 215, 219, 222; norm of, 61–2; positive, 214, 215, 217–19; positive and negative, in strife with Whites, 139; principle of, 3, 219; as principle of kinship, 220–1; theory of, 221
Reincarnation, 214
Repentance, as object of exchange, 85
Residual rights, land, 108–9
Residence arrangements: clan affiliation and, 201; kin terminology, 208
Respectful attention (*inguri*), in exchange with government, 74
Restricted exchange (*see also* Marriage): clan fusion, 212–3; combined with complex generalized exchange, 10, 137, 203, 213, 225; encouraged, 213; marriage and, 198, 203; matrimonial destiny and, 207
Rimoidi, M., 13, 31, 46, 100
Rituals (*see also* Feasts; Initiation): 51, 61, 92–4; coconut and betelnut in, 164–6; as communion, 57, 78, 80, 148–9; in cultivation cycle, 94; death of feast-giver, 152; *demu* in myth and, 63; feasts, feasting and, 63, 150; part of pig feast, 153; statements, taro, 112; transmigration of soul and, 92–4; use of paired plants, 163
Rubber trees, communal stands of, 22

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

104

Sacrifice (*see also* Communion): identification of with ancestors, 152; primal, *dorobu*, 210–11; affectiveness of, 148; gift and, 86, mediation in, 88; pigs and, 138–9, 145, 146; positive reciprocity established, 159; similarity to gifts, 86; similarity to the Passion, 70; taro feasts as, 122–3; ultimate goal of, 146
Sahlins, M. D., 6, 47, 65, 111–2, 128
Salisbury, R. F., 5, 32, 89, 90
Sanctions, exchange of, 155
Sangara (*see also* Mount Lamington eruption): ancestors and food division, 55; death of elders, 70–1; eruption of Mount Lamington, 36; establish relations, 149; *Hohorita*, 43
Sartre, J.-P., 161
Saruka ('black magic'): given by mother's brother, 184; medicines for killing enemies, 180; negative reciprocity, 222; use of, related to *otohu*, 182
Schapera, I., 221
Schutz, A., 4, 110, 161
Schwimmer, E. G., 8, 39, 46, 79, 80, 81, 159, 209, 217
Seho clan, labour migration, 45
Serpenti, L. M., 63, 89
Sex affiliation, 207
Sex role: dichotomy of, 117; objects of mediation, 187; taro and, 118
Sexual exchange, coconut and betelnut symbolism: 169–70, 173, 206–7
Shelter (*pege*), 115
Siane, pig feasts, 142
Siblings, real and classificatory (*du*), 197
Simbo (marriage arrangement): 199, 203; *hae* and, 206
Simonis, Y., 162
Sister exchange (*see also* Exchange; Marriage): 171, 173; *dorobu* marriages and, 207–8; *mine* exchange marriage and, 198; myth concerning, 168, 173; positive reciprocity, 214; preferential, 198–9; social distance and, 211
Situational analysis: 222; equilibrium theory, 227
Sivo (medicines), benefits of *otohu* and: 179–80
Sivepe: 43, 45; dance in, 26; exchange network of, 46; land, 106
Smith, Robertson, 145
Social distance: of affines, 211; of *aguma*, 182; *auha*, a symbol of, 201
Social exchange: sacrifice and, 86; theory of, 61
Social relations: as goal of feast, 156; economic principles and, 224; mediating elements as key to, 114; types of, 173
Social status, *otohu* as symbol of, 185
Social structure: mediating elements as key to, 114; objects of mediation and, 215
Sope iturí (preliminary gift; invitation): 150
Sorcerer, similarities with *aguma*, 181–2
Sorcery: accusations of, 160; among affines and consanguines, 156–8, 199; crop failure and, 154; in exchange system, 227; objects of mediation and, 61; 222; removal of, 60; replacing raids, 155; restoration after, 146; *soruka* and counter-magic, 222
Sorovi clan, 45
Souls, transmigration of, 92–5
Sowi (ghosts): 90; domestication of, 141–2; domestication of taro and, 116; that inhabit wild pigs, 139
Spirit (*ahihi*) (*see also Ahihi; Embahi*): *Embahi* and, 151, 177; flutes as, 183–4; garden plots and, 94; transmigration of souls and, 92
Spirit baby (*meni ahihi*), 92–3
Stanner, W. E. H., 145
Starting mechanism: 64–5, 85; food as, 112; myth as, 61, 62, 162
Steiner, F., 5
Strathern, A., 3, 47
String bag (*etí*), 141
Structures, mental, 161, 173–4
Structuralism and transactionalism, 225
Structural transformations, 81
Sumbiripu Kanekari (*see also* Mount Lamington): 1, 79, 80
Swidden agriculture, 20, 22
Symbols: arbitrariness of, 226; of identity, ornaments as, 175
Symbolic systems, task of anthropologists, 226
Symbolism, understanding mediating links, 7
Systems of operations and reference, 88

Taro: cooked/raw, 121, 124, 133; cultivation of, 114–15; domestication of, 116; exchange patterns, 119–22, 131–2; feasts and (*pondo ba*), 122–3; as females and male plants, 115, 117–18; harvesting, 91; mediation and, 111; in ritual, 61, 112; symbolic conceptualization and, 112, 118, 123; yams and, 22
Taro gifts: constraints on, 191; defined, 124; for establishing relations, 121–2; frequency of, 124–7; as index to intimacy of partners, 112–13, 127–8; for mediating sex roles, 118–121; pig gifts and, 144; preferential exchange patterns and, 129, 131–2; pseudocommensality, 215; sorcery and, 60; symbolism of, 121–2; from women, 91

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

104

Taro cult: 35; feast houses of, 151; as a non-millennial cult, 10
Technology: 18; changes in, 66
Tikopia, in contrast with Orokaiva, 69
Togahou ancestors, food division as origin of, 55
Tomlin, J. W. S., 51, 79
Totoima: coconut-betelnut myth and, 172; as cycle of myth, 114; as *dema*, 62–4, 78; identified with feast giver, 132–3; kills his own children, 116–7; as origin of *bro*, 55, 144; pigs and, 138, 147; sharing the body of, 57; taro feast and, 122–3
Trade, inter-tribal, 32
Transactionalism: model, 139; structuralism and, 225
Transactions: exchange cycle, 225; levels of, 61; of spirit, land and cultivator, 94
Watson, J. B., 216
Wealth (*hambo*), 186
Weeds (*biveze*), 114
Wild world (*orire*), 141
Williams, F. E.: 8, 11, 15, 18, 26, 33, 46–7, 52, 63, 91, 114, 139–41, 143, 145, 151–2, 164, 166–7, 177–9, 183, 192–3; 196, 198–9
Wilson, M., 35, 148, 216
Women (*see also* Sex roles): exchange of, 214; as object of mediation, 187; taro gifts from, 91
World War, Second, 35
Worsley, P., 35
Wurm, S. A., 15

Yams, not grown with taro, 22
Yin and Yang, dialogue of, 163
Young, M. W., 3, 47

GLOSSARY

104 **SOCIAL TERMS**

Affines People related to one another by marriage.

Clan A group of people who believe themselves to be descended from a common ancestor but who cannot trace the line of descent genealogically. A clan may be sub-divided into a number of sub-clans and/or lineages. Clans may be termed 'localised' when the adults of one sex, generally the men, live together as neighbours, and 'dispersed' when both sexes are scattered over a wide area.

Culture The sum total of the customs and knowledge of a group of people.

Exogamy This term is used when social custom forbids the marriage of a man and a woman who are members of the same clan, or other social group.

Expatriate Any non-indigene. Most expatriates in New Guinea are Australians. Others are from European countries, but there are sizeable minorities of Chinese in most large towns.

Indigene This term is used of the indigenous inhabitants of New Guinea instead of the more commonly used word 'native'.

Kin Two persons are kin when one is descended from the other or when both are descended from a common ancestor. People having such a blood relationship may be called cognates.

Lineage A group of people who can trace their descent from a common ancestor and who in theory know their precise relationship one to the other.

Matrilineal Used when descent is traced in the female line, i.e. when sons and daughters belong to their mother's clan or lineage.

Patrilineal This term is used when descent is traced in the male line, i.e. when sons and daughters belong to their father's clan or lineage.

Parish The largest group forming a political unit, i.e. within which regular institutions exist for the maintenance of law and order, or in the past, for making war. Average size in New Guinea is less than 500.

Parish settlement The houses occupied by members of the parish. Typical forms may be villages, hamlets or isolated houses.

Totem A sacred emblem, usually a bird or a plant, with which members of a clan have a special ritual relationship.

LAND-USE TERMS

Shifting-field agriculture This term is defined by Pelzer, an expert in tropical agriculture, as follows:
'Shifting-field agriculture may be defined as an agricultural system which is characterized by a rotation of fields rather than crops, by short periods of cropping (one to three years) alternating with long fallow periods (up to twenty and more years, but often as short as six to eight years); and by clearing by means of slash and burn.'
This description most accurately summarizes the system of agriculture in the areas described in this book.

Swidden An old English term meaning a 'burned clearing'. Its advantage over such terms as 'garden' or 'plot' is that it can correctly be used of an area which has been cleared for planting, one in which crops are growing or one which is reverting to bush.

[p. 39]

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

the Australian rulers, although they also know that so far the difference is not great.

Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

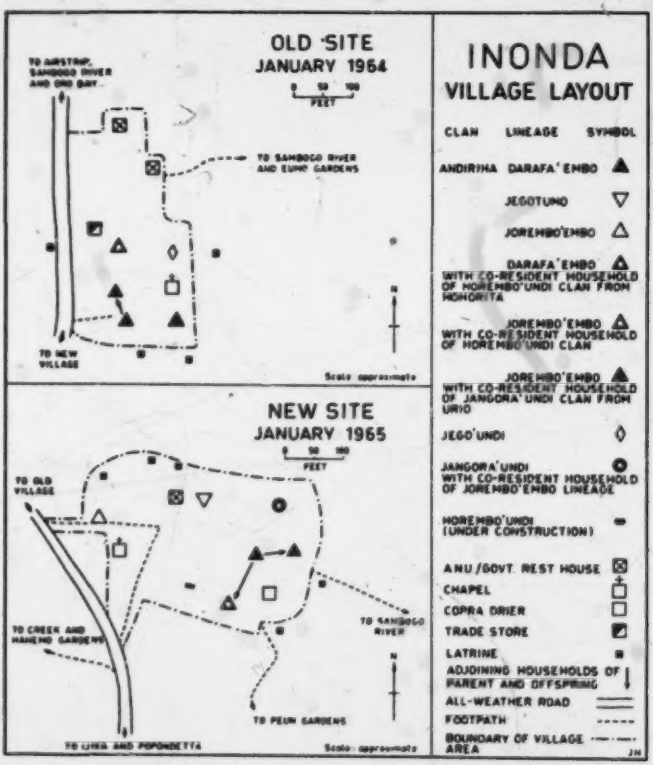

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion.

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers.

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Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them.

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed.

Sivepe. I stayed in Sivepe for about nine months, from September 1966

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and Waddell. Sivepe is twenty-four miles from Popondetta, but this distance
105 represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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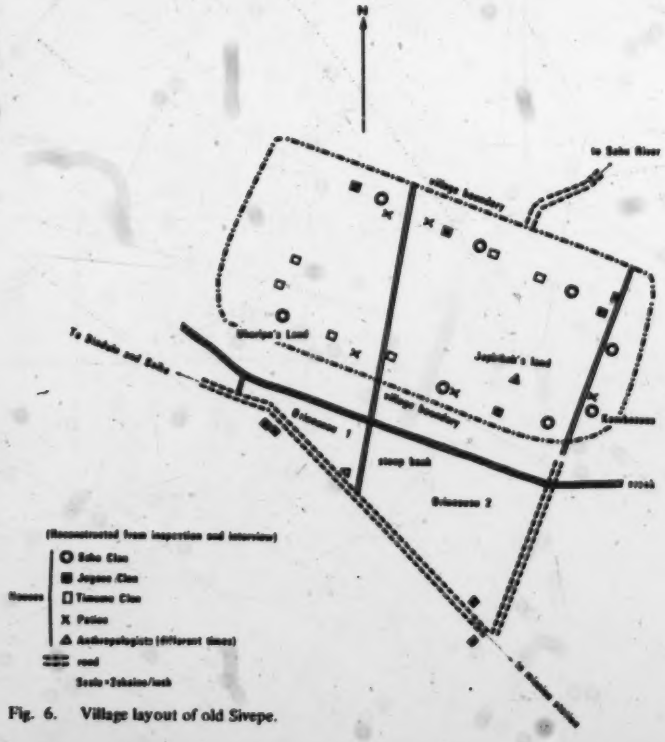

Fig. 6. Village layout of old Sivepe.

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Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *sacharum edule*. 262

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepa and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington
197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 The Orokaiva people number roughly 26,000 and are divided
[161] into about twelve tribes. The tribes are very loose units
[619] and recognise no single leader and before European contact,
warfare within the tribe was not uncommon. ...there are no
[423] land rights at a tribal level. Each tribe is divided into
a number of named clans. A clan is seldom localised, and
[614] usually it is divided into a number of sub-clans which are
dispersed over various parts of the tribal territory. Each
sub-clan holds rights over a specific area or areas of land.

177 There has been European contact of some form over a long period.
795 The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 The initial Japanese occupation of Papua took place in the
197 Northern District as the Japanese marched towards Port Moresby via

GLOSSARY

aguma--old warrior (p.177)
ahihi--spirit, soul (p.93)
dema--demigods (p.62)
di--headdress (p.26)
dorobu--bridewealth payments (p.210)
enda mama--head of extended family, charged with looking after their garden plots (p.96)
epe--mother's brother (p.179)
hae--plant emblem (p.176)
hambo--ornaments (p.26)
ivo--special power (p.144)
javo wahai--clan (p.196)
otohu--ornament ceremonially conferred upon a person (p.175)
pondo kiavi embo--feast leader (p.54)
pure--garden (p.91)
sovai--ghosts (p.139)

GLOSSARY

araha -- center area of a village (p. 136)
bande -- house (p. 135)
bende -- "side" of a village (p. 136)
da -- village (p. 135)

5: Schwimmer, Erik Gabriel. Exchange in the social structure of the Orokaiva; traditional and emergent ideologies in the Northern District of Papua. By Erik Schwimmer. New York, St. Martin's Press, 1973.

10, 244 p.; 10 figures (incl. 5 maps); 15 tables, 35 diagrams.

HRAF copy.

[This source examines "exchange cycles" among the Mountain Orokaiva. An "exchange cycle" as defined within includes three pairs of elements: (a) the basic elements placed in opposition; (b) the objects of exchange entering the transaction on each side; and (c) the mediating objects or acts that may be interposed as a prestation moves from one exchange partner to the other. Models of exchange cycles, which the author develops "on the basis of his understanding of indigenous thought patterns", are then used in an attempt to explain various social institutions among the Orokaiva.]

Field date: 1966-1967
Analyst: David Sherwood

Evaluation: Ethnographer-5
Processed in 1984

6: Crocombe, Ronald Gordon. Communal cash cropping among the Orokaiva. By R. G. Crocombe. New Guinea Research Unit Bulletin, 4. Canberra, Australia, Australian National University, New Guinea Research Unit, 1964.

6, 52 p.; map, 3 tables.

Yale: DU740 +A85 4.

[This source is concerned mainly with the introduction of coffee, cocoa, and rubber plantations by Europeans in Papua and the organization of Orokaiva forced labor. The displacement of traditional native agriculture by such schemes, the acquisition of land by the Crown, and the various cash-cropping incentives offered Orokaiva are discussed. Figures are presented relating to coffee production and native income. The fate of efforts to promote communal cash cropping among Orokaiva following the legal abolition of forced labor is also discussed.]

Field date: 1963
Analysts: M. A. Marcus, marker
Marlene Martin, checker

Evaluation: Ethnologist-4,5
Processed in 1984

7: Rimoldi, Max. Land tenure and land use among the Mount Lamington Orokaiva. By Max Rimoldi. Assisted by Cromwell Burau and Robert Ferraris. New Guinea Research Bulletin, 11. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966.

6, 2, 121 p.; 2 maps, 4 diagrams, 10 tables.

Yale: DU740 +A85 11.

[This source consists of a study of the subsistence cultivation activities and local migrations of 50 villagers following the disastrous eruption of the Mt. Lamington volcano. The author focuses on the one hand on the relationships between land tenure and land use, and the relationships between residential and local organization on the other. With increasing size and stability of settlements and the commercialization of agriculture, the area's potential for economic development is raised.]

Field date: 1962-1963
Analyst: M. A. Marcus

Evaluation: Ethnologists, Indigene-5
Processed in 1984

8: Waddell, E. W. The organization of production and distribution among the Orokaiva; an analysis of work and exchange in two communities participating in both the subsistence and monetary sectors of the economy. By E. W. Waddell and P. A. Krinks. New Guinea Research Buletin, 24. Canberra, Australia, Australian National University, New Guinea Research Unit, 1968.

22, 332 p.; 14 plates, 22 figures; 95 tables.

Yale: DU740 +A84 24.

[This is a highly detailed quantitative study of Orokaiva transactions, including data on exchanges which are not strictly monetary but rather relate to culturally-determined means of distributing resources and fulfilling social obligations. These traditional means are adapted by Orokaiva to accommodate changes brought on by resettlement, alien administrative rule, increased commercialization of agriculture, and new wage-labor opportunities. A substantial portion of this source is devoted to time studies of the performance of labor tasks and the household's weekly rhythm of all work and social activities.]

Field date: 1964-1965
Analyst: M. A. Marcus

Evaluation: Ethnologists-4,5
Processed in 1984

9: Kearney, George E. Cognitive capacity among the Orokaiva. In Orokaiva Papers. New Guinea Research Bulletin, 13. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966: 1-26.

Yale: DU740 +A85 13.

[This source reports the results of the administration of a culture-fair test of cognitive ability ("intelligence") to seven groups of adult male Orokaiva. The author found significant differences in the test results of the groups, and suggests that the most productive individuals, as defined by their ownership of cash crop trees, tend to have higher test scores.]

Field date: 1963 Evaluation: Psychologist-5
Analyst: David Sherwood Processed in 1984

10: Dakeyne, R. B. Changes in land use and settlement among the Yega. In Orokaiva Papers. New Guinea Research Bulletin, 13. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966: 27-52.

Yale: DU740 +A85 13.

[This source is a study of the genesis and development of the so-caled "Yega Scheme" of agriculture undertaken by the Yega Orokaiva under the advisement of government agricultural officers. In essence the "scheme" involved the clearing of land and planting of cocoa trees for cash crop production. The source discusses in detail concomitant changes in land use and land tenure, settlement patterns, and labor supply as the result of this development plan.]

Field date: 1962-1964
Analyst: John Beierle

Evaluation: Geographer-5
Processed in 1984

11: Dakeyne, R. B. Co-operatives at Yega. In Orokaiva Papers. New Guinea Research Bulletin, 13. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966: 53-68.

Yale: DU740 +A85 13.

[This source describes the origin and development of the agricultural co-operative production and marketing movement, first introduced by the Anglican missionaries, among the Yega tribe at Gona, Popondetta Sub-district, in the Northern District of Papua.]

Field date: 1962-1964
Analyst: David Sherwood

Evaluation: Geographer-5
Processed in 1984

12: Crocombe, Ronald Gordon. A modern Orokaiva feast. By R. G. Crocombe. In Orokaiva Papers. New Guinea Research Bulletin, 13. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966: 69-78.

Yale: DU740 +A85 13.

[This source is a description of the feast given on the occasion of a birthday celebration in Inonda village in 1962. The emphasis is on changes in feasting behavior due to acculturation.]

Field date: 1962
Analyst: Marlene Martin

Evaluation: Ethnographer-5
Processed in 1984

13: Hogbin, G. R. An Orokaiva marriage. In Orokaiva Papers. New Guinea Research Bulletin, 13. Canberra, Australia, Australian National University, New Guinea Research Unit, 1966: 79-101.

Yale: DU740 +A85 13.

[This source describes a bridewealth exchange which took place in Inonda village in 1962. There is abundant detail on the contributors to and the recipients of the exchange.]

Field date: 1962
Analyst: Marlene Martin

Evaluation: Ethnographer-5
Processed in 1984

14: Crocombe, Ronald Gordon. Land, work, and productivity at Inonda. By R. G. Crocombe and G. R. Hogbin. New Guinea Research Unit Bulletin, 2. Canberra Australia, Australian National University, New Guinea Research Unit, 1963.

2, 3, 109 p.; 6 maps; 15 tables.

Yale: DU740 +A85 2.

[This source attempts to determine which of various types of land tenure is the most productive and which is most suited to agricultural development (pp. 1-2). The authors include information on land tenure, other types of property, work organization, and limitations on productivity. The authors conclude with some implications for development policy.]

Field date: none
Analyst: Marlene Martin

Evaluation: Ethnographer-5
Processed in 1984

15: Crocombe, Ronald Gordon. Four Orokaiva cash croppers. In Papuan Entrepreneurs. New Guinea Research Bulletin, 16. Canberra, Australia, Australian National University, New Guinea Research Unit, 1967: 3-22.

Yale: DU740 +A85 16

[This is a study of four Orokaiva entrepreneurs who have established themselves in the society through cash cropping and retail trade. The brief case studies attempt to identify various factors which facilitate the emergence of entrepreneurs and others which restrict their success and future development. Frequent comparisons are made in the text to the life styles of the villagers of Inonda and Sivepe, previously studied by the author.]

Field date: 1962-1965
Analysts: John Beierle, marker
David Sherwood, checker

Evaluation: Ethnologist-5
Processed in 1984

16: Oostermeyer, W. J. Twelve Orokaiva traders. By W. J. Oostermeyer and Joanne Gray. In Papuan Entrepreneurs. New Guinea Research Bulletin, 16. Canberra, Australia, Australian National University, New Guinea Research Unit, 1967: 23-39.

Yale: DU740 +A85 16.

[This source is a study of twelve Orokaiva entrepreneurs engaged in retail trading with varying degrees of success. The authors examine a number of social and economic variables with respect to each trader, such as education, travel experience, and loans received, in an attempt to explain the varying entrepreneurial success of the individuals in their sample.]

Field date: 1965-1966
Analyst: David Sherwood

Evaluation: Unknown-5
Processed in 1984

17: Morawetz, David. Land tenure conversion in the Northern District of Papua. New Guinea Research Bulletin, 17. Canberra, Australia, Australian National University, New Guinea Research Unit, 1967.

10, 55 p.; 2 maps 8 tables.

Yale: DU740 +A85 17.

[This source describes a government project initiated in 1964 in the Northern District of Papua, in which land previously held by the Orokaiva under customary tenure was converted to registered individual title. The author examines the motivation and expectations of the people at one of the first conversion scheme sites, Ombi-Tara, and explores the effects of conversion on Ombi-Tara agricultural productivity, land use, settlement patterns, work organization, and social life.]

Field date: 1966
Analyst: David Sherwood

Evaluation: Unknown-4,5
Processed in 1984

18: Dakeyne, R. B. Village and town in New Guinea. Case studies in Australasian Geography, 1. Croydon, Victoria, Australia, Longmans of Australia Pty Limited, 1968 [1969 reprint].

1, 41 p.; 34 illus. (incl. 15 maps); 3 tables.

Yale: HC609 D35 (LC).

[Only pages 1-17 and 39-41 have been processed for the OJ23 Orokaiva file.]

[This paper is a study of culture change among the Yega (Orokaiva) of the north coast of Papua, New Guinea (near Popondetta). The author presents a brief introductory sketch of selective aspects of traditional Yega ethnology -- social structure, kinship, labor force, clan system, land tenure, etc. -- and then describes in much detail how these various aspects have been changed through European contacts. Given particular emphasis in this acculturation process are changes made in agriculture, settlement patterns, social structure and labor force.]

Field date: 1962-1964
Analyst: John Beierle

Evaluation: Geographer-5
Processed in 1984

19: Schwimmer, Erik Gabriel. Reciprocity and structure: a semiotic analysis of some Orokaiva exchange data. By Erik Schwimmer. Man, New Series, 14 (1979): 271-285. London, Royal Anthropological Institute, 1979.

HRAF copy.

[In this source, the author presents a semiotic analysis of Orokaiva reciprocity and gift exchange. After outlining the semiotic method, he discusses the vernacular terminology of the Orokaiva exchange system with reference to mythology. He concludes that there is a connection between the rules of the reciprocity and gift exchange system and the Orokaiva perception of world order.]

Field dates: 1966-1970
Analyst: Marlene Martin

Evaluation: Ethnologist-5
Processed in 1984

20: Schwimmer, Erik Gabriel. Virgin birth. By Erik G. Schwimmer. Man, New Series, 4 (1969): 132-133. London, Royal Anthropological Institute, 1969.

HRAF copy.

[This source is a brief commentary on previous articles regarding ideas about physiological paternity. The author's point is that empirical observations about paternity do not necessarily result in correct causal theories.]

Field dates: 1966-1967
Analyst: Marlene Martin

Evaluation: Ethnologist-5
Processed in 1984

21: Belshaw, Cyril S. Social consequences of the Mount Lamington eruption. Oceania, 21, no. 4 (June 1951): 241-252. Sydney, Australia, University of Sydney, 1951.

Yale: Anthropology Library GN1 +025 21.

[This short article, based on two weeks of fieldwork, describes the immediate damage done the Orokaiva by the volcanic eruption of Mount Lamington in January, 1951, and briefly surveys adminstrative problems in resettling the displaced Orokaiva population. It is anecdotal in nature and contains little substantive information.]

Field date: 1951
Analyst: David Sherwood

Evaluation: Ethnographer-5
Processed in 1984

22: Schwimmer, Eric Gabriel. Cultural consequences of a volcanic eruption experienced by the Mount Lamington Orokaiva. By Eric G. Schwimmer. University of Oregon, Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific, Report, 9. Eugene, Oregon, University of Oregon, Department of Anthropology, 1969.

7, 228, 8 p.; 14 maps; 21 tables.

Yale: Anthropology Library HV555 N43 S37.

[This source examines the effect of collective evacuation and resettlement upon an Orokaiva community, Sivepe, following the 1951 eruption of the Mount Lamington volcano. The author explores the various socio-cultural consequences of the eruption and its aftermath on Sivepe, and contrasts the situation there with that of Inonda, a second Orokaiva community unaffected by the disaster. This study forms part of a comparative study of ten displaced communities in the Pacific, which has as its goal the investigation of the hypothesis that displacement leads to accelerated cultural change.]

Field date: 1966-1967
Analyst: David Sherwood

Evaluation: Ethnologist-4,5
Processed in 1984

23: Keesing, Felix Maxwell. The Papuan Orokaiva vs Mt. Lamington: cultural shock and its aftermath. By Felix M. Keesing. Human Organization, 11, no. 1 (Spring 1952): 16-22. Ithaca, N. Y., Society for Applied Anthropology, 1952.

Yale: Anthropology Library GN1 +H85 11.

[This source is a study in cultural dynamics, illustrating what happens when people are subjected to a sudden unexpected shock which dislocates not only their own individual lives but the cultural continuity of the entire community as well. The case in point is the eruption on January 21, 1951 of Mt. Lamington in northern Papua, forcing wide-scale cultural disruptions and the resettlement of about nine thousand Orokaiva. Their reaction to this shock, their resettlement by the Australian government, and their slow readjustment to the situation constitutes the subject of the bulk of this work.]

Field date: 1951
Analyst: John Beierle

Evaluation: Ethnographer-5
Processed in 1984

24: Schwimmer, Erik Gabriel. What did the eruption mean? By Erik G. Schwimmer. In Michael D. Lieber, editor. Exiles and Migrants in Oceania. Association for Social Anthropology in Oceania, Monograph Series, 5. Honolulu, University Press of Hawaii, 1977: 296-341, 401-414.

Yale: GN663 E9 (LC).

[This source is a semiotic analysis of native explanations of the eruption of Mount Lamington in 1951. There are four different explanations: that the god of the mountain was punishing the Orokaiva for violation of taboos, that the god of the mountain was punishing the Europeans for their execution of several Orokaivas, that the Christian god was angry at the Orokaivas for various transgressions, and fourth, that the eruption was caused by geophysical forces. Schwimmer feels that these theories "...form a well-structured whole, and together they express contemporary Orokaiva social reality" (p. 338).]

Field date: 1966-1973
Analyst: Marlene Martin

Evaluation: Ethnologist-5
Processed in 1984

25: Schwimmer, Erik Gabriel. Friendship and kinship: an attempt to relate two anthropological concepts. By Erik Schwimmer. In Elliott Leyton, editor. The Compact; Selected Dimensions of Friendship. Newfoundland Social and Economic Papers, 3. St John's, Memorial University of Newfoundland, Institute of Social and Economic Research, 1974: 49-70, 146-162.

Yale: BJ1533 F8 C535 (LC).

[In this source, Schwimmer examines Orokaiva friendship in the context of the Orokaiva system of personal relationships. He identifies four categories of Orokaiva friendship, characterized variously by cooperative alliance, reciprocating partnership, or "total interdependence", and shows that each of these categories corresponds to a similar kin-based category of personal relationships.]

Field date: 1966-1970
Analyst: David Sherwood

Evaluation: Ethnologist-5
Processed in 1984

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OJ23 Orokaiva OJ23
Mountain Orokaiva

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——, 1957*d*: 'Descent in Tangu', *Oceania* XXVIII: 85–99.

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Yale: GN320 R67 (LC).

[This is a short article in which the author discusses the role of coconut, areca, and taro in Orokaiva society. These "objects", according to Schwimmer, are "total phenomena" in Orokaiva society, and the significance can only be understood by considering them in their full mythological, ritual, and social context. He illustrates this point by a brief and somewhat obscure analysis of these three crops as they are represented in Orokaiva mythology and exchange networks.]

Field date: 1966-1970
Analyst: David Sherwood

Evaluation: Ethnologist-5
Processed in 1984

27: Schwimmer, Erik Gabriel. The self and the product; concepts of work in comparative perspective. By Erik Schwimmer. In Sandra Wallman, editor. Social Anthropology of Work. Association of Social Anthropologists, A. S. A. Monograph, 19. London, New York, etc., Academic Press, 1979: 287-315.

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[This source is primarily a consideration of cross-cultural comparisons of the concept of "work"; the author illustrates his theoretical points with some data from his research on Orokaiva. He attempts to demonstrate that Orokaiva differentiate among several types of "work" according to the ultimate disposition of the "value" realized from each type, and that among pre-contact Orokaiva "work" was a religious, not an economic category.]

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Iteanu, André. La ronde des échanges; de la circulation aux valeurs chez les Orokaiva [The round of exchanges; on the circulation of values among the Orokaiva]. Publié avec le concours du Centre national de la recherche scientifique. Cambridge, Cambridge University Press; Paris, Editions de la Maison des sciences de l'homme, 1983.

[19], 335 p.; 40 photographs, 20 figures (including 1 map).

HRAF copy.

[This volume is an analysis of social relations among the Orokaiva, with emphasis on the central role of the circulation of ceremonial exchanges. The book jacket notes that: "In describing the Orokaiva rituals of the stages of life (birth, initiation, and death), André Iteanu places these in the context of a ceremonial circulation dominated by exchanges between spirits and men....The resulting analysis, clarifying the fundamental value attached to mutual reciprocation of gifts, and distinguishing the different levels of exchange in the light of that value, provides a convincing interpretation of Orokaiva society."

Iteanu: La ronde des échanges.

Unfortunately for this file, the book was written before the author did fieldwork among the Orokaiva and the whole is a reanalysis of published data (except perhaps for the photographs). Iteanu does note that the work was validated by his 18 months in the field and he did not rewrite any of it. Because of the secondary nature of this book, it has not been processed for OJ23 Orokaiva file.]

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153 121 influences. Motivation is of considerable importance but tends to be confused. It is easier for a person to say that he won't do something than to say that he can't. This is certainly the case in the European culture where being poorly motivated is more acceptable than being of poor cognitive ability. The former state can be altered from time to time but the latter state is relatively unchangeable.

It is suggested that in those cases where there is a need to choose between a number of applicants, those with the greatest probability of success should be selected. Close attention should be paid to the individual's cognitive ability and this, together with knowledge of other background and environmental influences, can increase the possibility of success in any selective procedure.

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Yega
Ononda

continues, a pattern of farmsteads set in consolidated, individual holdings may well replace today's villages and hamlets with their fragmented, widely-scattered landholdings. 361 178

Acknowledgements

This paper is portion of a wider study of Yega land use and settlement. The author gratefully acknowledges assistance and advice from colleagues in Australia, from officers of the Administration in Papua and from members of the A.N.U. New Guinea Research Unit. Field work was financed by research grant from the University of Sydney. 128 122

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many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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those visitors who had given most cash. In former times, they said, feasts usually continued for two to five days, but today there is a tendency, particularly in areas where paid work is available, to get them over in a single night or week-end. 514

While the rationale for the party was the birthday of the two children, they were in fact conspicuous by their absence from any aspect of the celebrations, feasting or exchange. The changing modes of dancing, dress, entertainment and economic exchange showed a constant striving to acquire foreign behaviour patterns. The feast did serve to confirm the adoption of the children (which had not previously been formalized) and to affirm the bona fides of the son-in-law who had been unable to meet his bride-wealth obligations. But it appeared to me that the main motive of the promoter (a retired mission teacher whose prestige was considerable, but waning in his retirement, and whose status was marginal in a patrivirilocal society in which circumstances forced him to live in the village of two of his daughters' husbands) was to reaffirm his prestige and reinforce his stake in the village of his residence. [111] [549] [554]

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113

even have been sufficient qualification for admission to a group, but without precise and comprehensive genealogical information this cannot be asserted. It is possible, for example, that some households could trace approximately equivalent but very distant genealogical relationships to both bride and groom, and that place of residence then determined the group with which they were aligned.

Williams (1930:137) describes a marriage payment typical of the mid-1920s. It included no cash and the traditional valuable would have been worth only $10.00 at 1962 prices. The traditional valuables in the bride-wealth described here were worth about three times as much and in addition $80.00 in cash was included. The people clearly regarded the cash as the most important component. Those genealogically and residentially closest to the groom contributed most cash; there was considerable formality associated with the payment of it; and in discussions of the bride-wealth the dominant topic was the cash component. The bride's father and brother received most of the cash but only a small proportion of the traditional valuables and they showed little interest in the latter. Households with lesser claims generally received items other than cash. The importance of traditional valuables in marriage payments has therefore declined markedly as a result of the introduction of cash to the economy.

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It is thus understandable that though the entrepreneurs are often not acceptable in leadership roles in their own villages, they are acceptable in elective roles where the selection lies with a wider community. It is likely that the stimulus they give to economic change among the Orokaiva is considerable. When they achieve their goal of owning motor transport, which gives tremendous prestige, many will consider that their 'way' has been substantiated and the impact of their example will be multiplied.

Summary

Data are presented on the four rural entrepreneurs among the Orokaiva. Because the sample is so small few generalisations can be made. All had travelled much more widely than the average villager, had been in paid employment for longer and had held posts of greater skill and responsibility than the average villager. Whereas most Orokaiva people established their gardens on their traditional lands, the entrepreneurs have deliberately not done so. The three who had developed their enterprises without financial help were all eldest sons who benefited from the labour of junior relatives. All have attempted to employ permanent labour, but none has succeeded.

There were marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spent less time than villagers did on subsistence gardening, but twenty times more in cash-cropping and trading; they spent much less time on traditional social obligations and much more on community leadership.

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NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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113

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QJ23 Orokaiva QJ23

121 an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

114 This point has already emerged from the debate between Leach, Spiro and Kaberry
171 when Kaberry showed evidence that the tribes she studied 'had no idea of the true
842 relation between sexual intercourse and conception' while she admitted that these tribes know empirically that sex relations are a necessary preliminary to pregnancy. She made the valuable point that her informants' empirical knowledge does not logically entail a 'correct' theory of procreation. The Orokaiva case again illustrates that such empirical knowledge may serve as a building block for a wide range of soundly constructed though perhaps 'incorrect' causal theories.

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[p. 133-B]

21: Belshaw E-5 (1051) 1951 QJ23 Orokaiva QJ23
Mount Lamington

as a first step in their wider rehabilitation. Lectures were given by Europeans, adult illiterates were taught the three " r's," sports were organised, and as a welfare measure the old people were given prepared meals in a " soup kitchen." Once again the response was enthusiastic, indicating a real demand. As refugees moved out of the camp back to villages, it was common for young men who had missed their Mission schooling, or who considered that schooling to be insufficient, to return to Ilimo for the sole purpose of continuing their instruction. Unfortunately, under the unsettled conditions they had to be sent home again. 731

As soon as the danger area had been determined villages outside it were re-started, leaving only 1,500 people at Ilimo by April. These 1,500 people were not permitted to return to their village sites except under special passes to obtain garden produce. An administrative officer was detailed to undertake research into native land tenure and social groupings in the area with a view to determining sites for re-settlement.[1] As a result of his recommendations these refugees were returned to certain areas of land which they were said to own, or which had been granted to them by neighbouring villages. Women remained at Ilimo until shelters had been erected for them, but by June they had rejoined their husbands and the camps were evacuated. A Government patrol post was set up at Saiho in the centre of the evacuation area, and medical facilities were transferred to Saiho from Ilimo.

The policy behind these moves was aimed at re-establishing gardens in the shortest possible time, and the building of an improved style village-system. In addition consideration was given to the possibility of large-scale community development. But there were many difficulties in the way, and the method of carrying out the policy often created further difficulties.

In *Orokaiva Society* Williams characterizes the people as being fierce fighters but gentle and harmonious in their domestic and intra-group relations. Whether or not that was true twenty years ago, Europeans with recent experience of them say that they are now highly excitable, with rapidly inflamed tempers which, however, quickly subside. When under the influence of temper they are said to be violent, and to vent their violence on people near at hand, particularly wives. There is a tendency towards suicide in the case of disappointed love or the loss of children, and they will throw hysterical fits. In view of these conflicting accounts it is impossible for me to judge whether the emotional activity I observed after the volcano was a mere passing phase or represented deeper emotional states. At the same time there were a number of influences present which certainly did nothing to reduce nervous tensions. 157 152 [162]

It is not difficult to describe these. The people were in refugee camps, and the atmosphere of refugee camps is almost always one of strict control, in contrast to the freedom of village life. Work had to be found to keep people occupied, and much of it was camp erection work that had no clear or immediate relevance to the desire 731

[1] See memorandum by H. T. Plant, " Re-Establishment of Isivita Villages," March 24, 1931. with Map and Appendices on Land Ownership, Class and Tribal Groupings. [113]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949. "Co-operative Rumours Kokoda Sub-District."

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101 These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity 133 with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Oro- 241 kaiva worked their hamlets and gardens high up on the rich soil of its sprawling flanks, achieving perhaps the densest 361 settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background 731 conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higaturu.

133 The first eruption came on a Sunday morning after three anxious days of earth tremors during which official and 731 Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good

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[113] 2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and so the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 39-43 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement co-operation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Tall cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manseren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 128-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

[p. 22-A]

113

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NOTES

101 114 1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

114 128 2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

824 431 3. "A principle of gradation by which elements are related to the whole of which they form part."

121 4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

ACKNOWLEDGEMENTS

This research was made possible through my appointment as an assistant to the Department of Anthropology at the University of Oregon. I was commissioned to write a report for a project directed by Professor H. G. Barnett, entitled 'A Comparative Study of Culture Change and Stability in Displaced Communities in the Pacific'. This commission enabled my wife and myself to visit the Northern District of Papua for one year. I also received help from the Canada Council and the Killam Foundation. 122

I should acknowledge here the contribution made to this research by my wife, Mrs. Ziska Schwimmer, who not only bore with it but made many valuable observations which have been incorporated in this work. Among others who were helpful, kind, encouraging and inspiring in the field I should mention: Dr. R. Crocombe, executive officer of the New Guinea Research Unit of the A.N.U.; Miss Nancy White, a missionary and collector of valuable Orokaiva texts; Mr. M. Lean, head teacher of the Sasembata mission school; Dr. A. Radford, director of the Saiho hospital; Mr. C. Searle, a planter of Awala; their wives; and many other individuals attached to the mission and the administration. 128

My Papuan interpreters, research assistants and chief informants were the following: Mr. Stephen Oriri of Inonda; Messrs. Harold Heru, John Douglas and Brian Orua of Hohorita; Messrs. Robert Nanisi and Leon Bhagi and Miss Patricia Jove, of Sivepe; the Rev. Albert McLaren of Sasembata mission station, and Mr. Walter Waki of Popondetta. I owe a very special debt to Mr. Cromwell Burau who stayed with me for three weeks and communicated to me some of his deep insight into Orokaiva culture: and to Samuel Jovareka, our Orokaiva father, of Sivepe. 114 115 124

I should like to thank also some of the scholars who, for better or for worse, have helped in the development of this work by their encouragement, criticism and information; in alphabetical order: Dr. Homer G. Barnett, Dr. Cyril S. Belshaw, Dr. Kenelm O. L. Burridge, Dr. A. Capell, Dr. Peter Carstens, Dr. Jan Pouwer and Mr. Adrian Tanner. Finally I would thank the Social Sciences Division, Scarborough College, University of Toronto, for excellent secretarial services. 128

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S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 followed is especially appropriate for making sense of Melanesian societies, and perhaps other societies also. For the method to be consolidated, a second field study will be necessary, explicitly and systematically oriented towards communication systems, boundary systems, proxemics and the like, covering the communication of women, material objects and messages, and including at least some comparative perspective and some myth analysis. The present work, however, seems a necessary first step in plotting such new approaches to ethnography.

121 My work was much facilitated by a wealth of previous studies of the
114 Orokaiva,[4] of which the most valuable is still F. E. Williams' *Orokaiva Society* (1930). Re-study proved it to be a highly accurate work, focusing on the most challenging problems posed by the social system. Among these are the bilateral tendencies in the kinship system classified as patrilineal; the plant emblem groups; the relation of 'homicidal emblems' to initiation rituals and especially the subtleties of the value system, brilliantly handled in the chapter on 'Morality'.

A successor can fulfil various useful offices, some minor, some major. First, Williams' work can be used as a basis for a study of culture change. I have done this to some extent in an earlier work (Schwimmer 1969) and in the present work where the argument demanded it. Secondly, *Orokaiva Society* provides a composite picture of a number of closely related, yet by no means identical
[101] systems (Mountain Orokaiva, Aika, Yega, Binandere, etc.) In this re-study, I confined myself to Mountain Orokaiva, reserving for another occasion a survey of the diversities in degree of patrilineality, kinship terminology, ritual forms, leadership patterns and the like, all related to the ecological base and settlement history.

Thirdly, Williams' study of the Orokaiva was made early in his career. When reading his later works, we note analyses (on sex affiliation, 1932; on dual division, 1924, Ch. VIII, 1936 Chs. VI–IX, 1940: 32–5; on 'disease and its treatment 1940–2: 90–105; and on totemic groups, e.g. 1940) that would apply with minor variations to the Orokaiva, but are not developed in Williams' writings on that tribe. We need not suppose that in the Northern District Williams failed to observe what he saw and described in relation to Kerari or Elema. It is more likely that he was progressing steadily along a highly individual analytical path, leading him only gradually to perceptions which were theoretically far ahead of his times. In any case, in my analysis of Orokaiva plant emblem groups (Ch. X) my presentation is very close to Williams' work on the Elema, although it departs from that on the Orokaiva. Similarly, I have drawn on his writings on 'sex affiliation' among the Koiari and 'dual division' in the Gulf District, on disease at Lake Kutubu and so forth, thus bringing to bear the insights of Williams' maturity on Orokaiva material.

These are the minor tasks. The major one is to continue the search for system in New Guinea societies on the basis of these insights and of the theoretical discoveries of the last thirty years. Thus this book is in a sense a dialogue with Williams to which I contribute new data that seem relevant.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.[A]

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431—Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER XI

EPILOGUE

I have not presented in this work all the empirical facts that may be elucidated with the proposed model of Orokaiva society. I have had space to discuss only a small minority of the myths which are at my disposal but there are a number of others that are more readily understood in the light of my analysis of social structure. The description I have given of corporate activities in patrilineal descent groups has been rather summary, even though much additional evidence could have been marshalled presenting them as competitive segments of a wider non-agnatic collectivity. The rather interesting institution of hereditary friendship, between both men and women, has not been described although this forms a not unimportant part of the total exchange network. Indeed, I have not reported the exchange network in much detail at all, largely because this has already been done in my earlier work entitled *Cultural Consequences of a Volcanic Eruption Experienced by the Mount Lamington Orokaiva* (1969).

Many of the facts reported in this earlier work can be more adequately explained in the light of the analysis offered in the present one. Orokaiva reactions to the eruption, for instance, are not easy to account for unless we can explain the powerful driving force of the *iji eha* ideology discussed in Chapter IV above. The earlier work also did not elucidate the relationship between Orokaiva and the white man. It was made clear that this relationship is an ambivalent one, positive when the Orokaiva leader plays the roles of councillor, village constable or 'committee', but negative when he plays the role of organiser of a co-operative or of transmitter of messages with a millenarian import. Although these roles were described in detail, I perhaps did not make it clear enough that they are often played by the same individuals at different times, or at the same time, and that even if they are played by different individuals, these are not necessarily thereby placed in a position of conflict between one another.

We can, however, easily account for this ambivalence if we remember that social exchange between Orokaiva and white authorities is subject to the laws of the exchange system: there is an alternation between positive and negative cycles. Some members of an Orokaiva group may be in a positive cycle of reciprocity with white authority while others are in a negative one. This does not necessarily mean that the members of the Orokaiva group are in conflict with each other. The same members of a community may support both a co-operative to which the administration objects, and a councillor who acts as an administrative mouthpiece.

The facts are that the administration provides valuable benefits (and the mission likewise) so that there is a sound basis for cycles of positive reciprocity.

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

Foreword

We were aware before beginning this study that communal plantations in the Northern District had been a failure. The Research Unit is generally more interested in successful ventures than in unsuccessful ones and this is the only failed experiment to have been included in our current land study programme (which includes more than twenty sample studies in various parts of the country). The reason for this study was that detailed comparative studies were being undertaken with other approaches to cash cropping among the Orokaiva and a full comparison could not be made without the inclusion of the communal experiment. 121

For assistance in the field I am particularly grateful to Mr. Edric Eupu and Mr. Cromwell Burau as well as to the people of the many villages we visited in the course of the study. Mr. Max Rimold kindly assisted with research from early published reports. The co-operation and interest of the District Commissioner, Mr. L. Williams, and other officials, missionaries and settlers is acknowledged with gratitude. 128 [114]

Appendix F

The Orokaiva villager's experience of cash cropping

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepe village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 Work in the field was shared by Burau, Ferraris and Rimoldi.
● 114 Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepe[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepe for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sasembata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

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[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

128 [114] We were fortunate in the extensive assistance and guidance which we received from Dr R.G. Crocombe in conducting the survey and at all stages in the preparation of the manuscript. Drs Bettison, Brookfield and Brown also read drafts of this report and we are grateful for their comments which we found valuable in revising the manuscript.

127 We wish also to acknowledge the co-operation of the Statistician, Bureau of Statistics, Papua, who made available the data from the Food and Agriculture Organization Survey, and of the trustees of the Mitchell Library, Sydney, who gave permission to quote from F.E. Williams' papers in their collection.

xx

interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

The survey was conducted over three separate periods during 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of available rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activities.[2] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

The gathering of field data was shared equally between the authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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[1] In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

[2] It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

Preface

125 (101) In this study, carried out between February and April 1963, seven groups of adult male Orokaiva were tested using a culture-fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

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177 to be kept under control'. Europeans now living in the Northern
563 District tend to make such wide generalizations. They also tend to allot unique stereotypes to subgroups such as villages or tribes.

The process appears to be one of social spacing in a psychological field thus allowing relationship between broad groups to be defined and fixed. Such a process tends to cause less anxiety in social interaction. Instead of the necessity to formulate a new social relationship with each person, relationships are already defined and the task is simply to find which relationship is applicable. The tribal group is very convenient for this purpose. There exists a strong body of opinion concerning the Orokaiva and his nature, habits, ability and personality, though very little of this has been substantiated by scientific enquiry.

History of psychological testing in Papua-New Guinea

● 114 The first report of psychological research in Papua-New Guinea is that of the Cambridge Anthropological Expedition to Torres Strait Islands in 1898. The expedition, under A.C. Haddon, consisted of Sidney H. Ray (linguistics), Anthony Wilkins (archaeology and anthropology), C.S. Seligman (native medicine and disease) and three young psychologists each of whom was to achieve prominence: W.H.R. Rivers (who became Chairman of the Medical Section of the British Psychological Society), C.S. Myers (who became Director of the National Institute of Industrial Psychology) and William McDougall (later Professor of Psychology at Harvard University then Duke University). Volumes of reports were published intermittently from 1901 to 1935. The most relevant psychological material is found in the Introduction to Vol.I and in Vol.II, Parts I and II.

Rivers (1901) described the subjects investigated as:

> visual acuity and sensibility to light differences, colour vision, including testing for colour blindness, colour nomenclature, the thresholds for different colours, after-images, contrast and the colour vision of the peripheral retina; binocular vision, line dividing; visual illusions, some of which were investigated quantitatively; acuity and range of hearing; discrimination of tone-differences; rhythm; smell and taste; tactile acuity and localisation; sensibility to pain; temperature spots; discrimination of weight and illusions of weight; reaction time and choice time, estimation of intervals of time; memory; mental fatigue and practice; muscular power and motor accuracy; drawing and writing; blood pressure changes under various conditions etc.

114 The work reported was of an anthropometric nature. It follows in the tradition of Galton (1883) and Cattell (1890) who, in their anthropometric laboratories sought to investigate cognitive functioning by measuring psychomotor and sensory capacities.

The importance of this work is less in the significance of the data accumulated than in the fact that 'this was the first occasion on which trained psychologists provided with what apparatus they needed have worked among a primitive people in their natural surroundings' (Haddon 1901-35, Vol.I). No attempt was made to meet the strong criticism made three years earlier by Binet and Henri (1895), concerning the anthropometric orientation of current psychological research, with its emphasis on sensory and simple specialized abilities. A more pragmatic approach to assessment of abilities led to the development of the famous Binet-Simon Scale (1905) which was commissioned in 1904 by the French Ministry of Public Instruction. It was revised in 1908 and translated for American use by Goddard in 1910 and later adapted by Terman in 1916. This proved to be an impetus to the testing movement, which led to the rapid development of applied psychology.

Thus, although the Cambridge Expedition did not have the use of the powerful tool developed by Binet and Simon seven years later, they did have the advantage of the earlier criticism by Binet and Henri which they ignored. The Torres Strait Study, although interesting, and claiming to examine important functions such as memory (1901-35 Vol.II, Part 1:2), neglected much data which might have proved of value to subsequent investigators in the field of pre-literate cognitive ability.

The study of the cognitive capacities of pre-literate people in Papua-New Guinea was neglected until Roscoe's (1953) study, although Porteus (1931) in Australia, Mann (1935) in Fiji, Leiter (1936) in Hawaii, Fowler (1940) in Australia, Havinghurst and Hilkevitch (1944) in Alaska, Biesheuvel (1949) in South Africa and Bhatia (1955) in India, did substantial work in the development of tests of cognitive capacity of pre-literates. Roscoe's work in Papua-New Guinea was not continued. Research into the cognitive capacity of the indigene was delayed until McElwain and Griffiths were asked in 1957 to advise on the feasibility of introducing psychological selection into the recruiting procedure for the Pacific Islands Regiment (PIR) in a manner similar to that employed by the Australian army. Their report (1958) proved favourable and Ord (1959) commenced the design of a test suitable for this purpose in 1958). Ord's work was primarily concerned with the selection of recruits for the PIR although he also studied the performance of school children and Papuan secondary school pupils in Australia. A total of 993 people were tested between July 1957 and October 1958. Reference to this work is also made in the appendix to a survey carried out into the

114 mental health of the indigenes of Papua-New Guinea by Sinclair, McElwain and Campbell (1958). In 1960 van den Hout, McElwain and Ord visited the Schouten Islands in West New Guinea and outlying areas to assess the suitability of the test for these areas. The test was found to be useful, and was employed by the Dutch administration for educational selection.

Ord's work was the first attempt at the construction of a suitable test using modern psychometric techniques. It was, in fact, the first successful construction of a major test of general cognitive ability ever constructed outside Europe or the United States. Most other tests have been specific and have not been put into more general use.

Rationale

121 Intelligence or cognitive capacity is mediated through behaviour and is manifest in performance. All behaviour is a function of innate ability compounded with environment. It is impossible to measure one in isolation from the other. However, it is considered sufficient to infer differences in innate ability from differential test performance where environmental influences are held reasonably constant for the members of any group.

The ability of the testee to adopt an intellectual approach congruent with that of the tester will often determine his performance on a test. This was shown by Runkel and Damrin (1961) in the context of university teaching and examining. The method used to find the solution may vary for the one person from time to time and vary widely from person to person. This method is different from the solution itself. It is the tactices or the method of attack on the problem. The testee will usually have available a repertoire of such tactics for problems which he perceives to be of a certain type; one or more of which he will prefer, probably since they have been successful in the past. The testee whose preferred tactic is, in fact, an efficient one for the particular kind of problem will score well because he can solve more difficult problems faster than a testee whose preferred tactic is not so efficient.

It is probably generally true that when the person who constructs the problem and the testee who attempts to answer it have the same cultural and experiential background, then the testee is more likely to have the appropriate tactics available to solve the problem than when the tester and testee have different backgrounds. This intellectual empathy or like-mindedness between the tester and the testee; or more strictly, between the demands of the problem and the preferred mental tactics of the testee, has been referred to as 'serendipity' by Campbell (1963).

where he was headman for about 12 years. In 1960 he moved his household to a block he was allocated in a land settlement project a short distance from Inonda across the Girua River, but he continued to exert strong influence in the affairs of Inonda. 584

A man from Sewa wished to marry the girl but her father and brother opposed the marriage because, they said, her married sister at Sewa was not happy there. When the present groom returned to Inonda in 1962 she was attracted to him and rejected the Sewa man in his favour. The Sewa man's family were displeased and it was rumoured that they were responsible for the sorcery which caused the groom's father to die.

Late in June, without her father's permission, the bride stayed in the groom's household for a few days and the couple made it known that they wished to marry. The bride's father and brother, especially the former, opposed the marriage. They gave several reasons, but it is difficult to know which was the most important. They said they were angry because she 'ran away' to live in the groom's father's house and that they wished her to marry a man of better prospects and from a family of greater prestige. Her brother, formerly a mission teacher, said she should be baptized so that she could have a church marriage, but this did not happen. Both bride and groom were of the Andiriha clan, but this deviation from the Orokaiva preference for clan exogamy was never openly used as a basis for objection to the marriage.

The bride-wealth for the marriage was set, principally by the bride's father, at $200 in cash and the equivalent of $200 comprising a pig, traditional valuables,[1] household utensils and food. Villagers considered this an extremely high price and evidence collected in the village suggests this was so (see Table 1). An Orokaiva research assistant who had travelled widely through the area said it was unusually high for a small clan such as the Andiriha, although not unusual for large clans.[2] Moreover, as the marriage was endogamous to the clan, the groom could not call on the entire clan's support. 583 [114]

The bride's father said he needed the money to establish a retail store and to buy a motor vehicle, but in September 1965 he had not realized these ambitions. His opposition to the marriage may have moved him to set a high price in the hope of discouraging the groom. However, informants said it was not unusual for a parent or guardian to make a display of anger towards a daughter's [584]

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[1] Traditional ornaments, and feather head-dresses will be referred to collectively as 'traditional valuables'.

[2] C. Burau, personal communication.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 402 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 402 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected 126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

I am indebted to the New Guinea Research Unit of the Australian National University for generous financial assistance. I wish to thank the Chief Commissioner of Land Titles (Mr D.J. Kelliher) and members of the Commission in Popondetta and Port Moresby; officers of the Department of Agriculture, Stock and Fisheries in Popondetta, and of the Department of District Administration in Popondetta, who discussed various aspects of the project and assisted me in every possible way; Mr Cromwell Bursu, Mr Russell Clarke and Mr Napier Boraba who helped greatly by interpreting both Orokaiva language and culture; Mrs Yvonne McMahon who typed a manuscript which was at times barely legible; and the Ombi-Tara villagers whose warmth, hospitality and enthusiastic co-operation made our stay so enjoyable. Helpful comments on an earlier draft were made by Dr R.G. Crocombe, Mr E.K. Fisk, Mr G.R. Hogbin, Dr R.T. Shand, Mrs S. Faircloth and Mr W. Standish. I am particularly grateful to Dr R.G. Crocombe, Executive Officer of the New Guinea Research Unit, for his advice and encouragement at all stages of the project.

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20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [715] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

614 182 not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled clan patrimony together. It is therefore [842] tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories [813] implying causal connexions. It is notorious [814] that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *tauga* leaves fall while the main taro crop is coming up and postulate that it is the dropping *tauga* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

121 an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

● 114 This point has already emerged from the debate between Leach, Spiro and Kaberry
171 when Kaberry showed evidence that the
842 tribes she studied 'had no idea of the true relation between sexual intercourse and conception' while she admitted that these tribes know empirically that sex relations are a necessary preliminary to pregnancy. She made the valuable point that her informants' empirical knowledge does not logically entail a 'correct' theory of procreation. The Orokaiva case again illustrates that such empirical knowledge may serve as a building block for a wide range of soundly constructed though perhaps 'incorrect' causal theories.

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113 Leach, E. R. 1967. Virgin birth. *Proc. R. anthrop. Inst.* 1966, 39–49.
Spiro, Melford E. 1968. Virgin birth, parthenogenesis and physiological paternity: an essay in cultural interpretation. *Man* (N.S.) 3, 242–61.

[P.133-B]

broader view of the social consequences of the eruption, and therefore included a third village, Hoborita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hoborita is a village made up of the survivors from Sangara villages situated in the blast area. Hoborita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hoborita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepa, with three weeks in Inonda and five weeks in Hoborita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepa a village house was built for us while at Hoborita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hoborita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimildi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hoborita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

133 Just when these preliminaries started is not clear; it may have been one week before the disaster or several weeks. The rumbling and tremors in the mountain, which were usual enough, became more severe; smoke was beginning to come out of the crater in thick puffs high into the sky; the number of craters rose from one to four or five. Ash covered the peaks, areas along the slopes became burnt; sometimes there were flashes of fire; several landslides appeared as brown streaks in the forest. Swarm-pattern earthquakes became widely felt throughout the area. On Thursday, 18 January 1951, the more active phase of the eruption began (Taylor, 1958). The emission rate increased throughout the day; the smoke gushing forth "at a great rate" varied from black to grey and spasms were noted in the crater activity. The emission was described by more distant observers as a slow-moving continuous dark-grey column ascending to many thousands of feet. A survivor who looked at the mountain through a telescope on that day noticed that a large hill had built itself up between the hills at the foot of Lamington and the mountain at the rear. That night, the mountain was shooting fire like an immense fire works. In the Sivepa area, at this time, and on Friday, stones were falling on the gardens, earthquakes were very severe and some houses had collapsed.

731 The Orokaiva interpretation of these events will be clear from what I have already written. It is explicitly supplied by Benson (1955) who reported that the fearsome happenings in the mountain were ascribed to the anger of Sumbiripa. I shall show later that the same view was taken in Sivepa. The clearest description [114] of the state of mind of the people close to the mountain (those who were mostly to become the victims of the blast a few days later) was given in a letter by Margaret de Bibra, head teacher at Martyr's School in the Sangara Anglican Mission. Miss de Bibra died during the eruption but her letter was found after her death (White, n.d.).

> The Papuans--well, most are calm, many are apprehensive and some really frightened, especially those whose villages are near the mount. It is all understandable, in fact it is to their credit that there is no panic. Lamington has not been a volcano within the memory of living man, nor in the legend of the [823] people. (But see above, E. S.) True, Lamington is feared as the home of spirits and no local man--even Christian--will venture to the top. As one of our Church Councillors said: 'The mountain people do not understand. They are afraid. We understand a little and we are afraid too. Our fathers did not know of it. The trembling of the earth--yes, but not

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In
●[114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu
[651] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relation-
[578] ships and social relationships outside the village. The first of
[629] them, in 1952, seems to have been precipitated by a quarrel between the Timunu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a
361 superfluity of reasons. Rimoldi was told of almost all the shifts
659 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths attributed to sorcery and because of quarrels between neighboring
361 villages which were too close together for comfort. I witnessed
[628] one shift after a death of an old man where sorcery was not
[754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his
[764] ghost. The population of this village shifted to nearby Hohorita,
[775] a move which was in any case favoured by the government. A reason that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Ilgaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs. Williams' tribal map shows Inonda as Sausha; Crocombe and Hogbin
● [114] describe Sausha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[657] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify
592 the picture somewhat, as for the purpose of this study it is irrelevant
whether children are natural or adopted, legitimate or not, children
of both parents or one and whether clan membership is "primary" or
"permissive." All these questions would be highly relevant, of course,
if we were dealing with a village such as Roborita, where many people
died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams'
ethnography is that he omits any reference as to household composition;
in his notebooks, he records household composition for two villages,
Durugata and Wasida, showing that in every case in those villages, a
household was made up by a husband, wife and children. In one case of
a polygamous family, the man had two houses, one for the family of one
of his wives and one for the families of the other two.

Informants told me of one rule regarding household composition
592 which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless
to say, in the presence of the wife's father). For this reason, the
people of Sivepe certainly do n.t like three-generation households when
the middle generation is represented by a married couple. It is normal
for a married woman to stay with her parents or her husband's parents
while her own husband is away working for wages--as is frequent among
younger couples. In that case, the household will have three generations,
but the middle generation is represented by a woman only, with the
husband only an infrequent guest. When I came to Sivepe, and the
village was still only half-built, I found three households in which
the middle generation was represented by a husband and wife plus,
sometimes, a few others. In all these three cases, a change had
occurred before I left: the husband and wife had built themselves one
house, leaving another for the old people and perhaps some other adults,
not including couples. This rule seems to be regarded as less important
in Inonda. (See Table 15.)

592 My own impression is that the normal household is composed of
a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by
themselves, even if they have no young children living with them and
[589] do not like staying with their children after they are married. A
widower usually has his meals cooked for him by a daughter or other
close relative who brings the food to this house. Though occasionally,
two married brothers (or other close relatives) live in the same
house, this is likely to be a temporary arrangement. I do not think
that useful sociological conclusions can be drawn from comparison
between Inonda and Sivepe in respect of household compositions, as
there are in Inonda only two households of the type I have shown to be
highly untypical and these may well be accounted for by idiosyncratic
circumstances.

A [See Cat. 116, p. 220--Analyst]

593 further such lucrative young females. Of the six, two were Sivepe
592 women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

464 Though Waddell showed that the loss of adult male workers
433 through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the
889 adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows
[463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

595 I saw no evidence of polygamy currently practised. Marriages
585 were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time
586 of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money
464 home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 7: Division of Labour

114 The division of labour was the special subject of a study
464 carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is whether earlier students of societies depending on shifting agriculture are right in saying that such societies, at least in fertile regions, have a considerable potential labour surplus. He proceeds to argue [166] that, in the light of detailed data on the use of time in Sivepo, what [167] potential labour surplus there might once have been has already been taken up by labour migration of male adults (which, for his sample, he puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines economic activity as comprising only the production of food, clothing and shelter, and argues that, given the existing socio-economic matrix, all the other activities listed on his time charts (see Table 5) should be regarded as economic because they buy status and security. [472] He also takes issue with Salisbury (1962: 216-20) who proposes that [461] the change from a stone-to-steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks and who concludes from this that a vast potential labour surplus is thus created. Waddell shows, by a quantitative study of the allocation of time within activities, that only 38.7% of the time allocated to an activity is actually given over to the main task, and even if one includes ancillisar, and other productive tasks, this raises the proportion to less than 50% of the total time devoted to that activity. (See Table 17.) As steel implements are used for only a portion of productive tasks, they did not, Waddell argues, make a crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepo was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
241 in an excellent position to discover this as at the time of his survey seven of 15 households surveyed engaged in cash-cropping; he was therefore able to inquire how this affected the time spent on subsistence food production. As it happened, the median time spent on subsistence gardening by the whole sample equalled precisely the median time spent by the cash-cropping households. (12.6 hours per week, vide his Table 5:5) It appears from the table I derived from Mr. Waddell (my Table 17) how the cash-cropping families fit in this extra work: they spend a great deal less time having rests and meals. While non-cash croppers allocate only 28.4% of the time within activities to their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell gives interesting explanations which account for part of this discrepancy, even if full allowance is made for these, the fact remains uncontestably that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This seems to suggest a considerable heterogeneity in working habits as between the members of the community. The author clearly shows this heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepe never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepe today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepe did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.
114 The question is an interesting one, but Sivepa does not provide a clinching counter-instance. Mr. Waddell's sample was taken entirely from the Jegase and Timusu clans, while he did not collect [489] data on travelling time from the Seho clan. Now it is the latter clan [423] which owns most of the land around New Sivepa, so that their travelling time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timusu) now have gardens very close to New Sivepa. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepa in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepa. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the [888] Polynesian elder he does not become a sage, remote from economic

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both men and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

23: Keesing E-5 (1951) 1952
OJ23 Orokaiva OJ23

The Papuan Orokaiva Vs Mt. Lamington: Cultural Shock and Its Aftermath

Felix M. Keesing

What happens when people are subjected to unexpected catastrophic shock, dislocating their whole round of life and making a sudden break in cultural continuity? This occurred to some 9,000 Orokaiva in northern Papua when Mt. Lamington erupted on January 21, 1951. Some 4,000 Orokaiva and all of the approximately 50 whites at the Government and Mission stations in the main blast zone were killed. The survivors were forced to flee from ash-choked homes and gardens.

At the request of the Administrator of Papua and New Guinea, the writer and his wife visited this area some weeks after the main eruption and shortly after a second major blast. The purpose of the visit was to make a brief survey of the relief and rehabilitation operations set in motion by the Australian authorities and to give any advice possible. This area was one of the great battlegrounds of the Pacific war—the Kokoda-Buna-Oro Bay area—and since there are still a number of usable airstrips and jeeproads, it was possible to cover the emergency camps and other Government and Mission operations by plane, and then by jeep, canoe, and on foot, and to get some sense of the consequences of this catastrophe and of the problems involved.[1]

This paper does not purport to be based on profound knowledge of the situation for it will take a long while before its total dimensions can be properly assessed. Rather it is designed primarily to raise questions: some of theoretical significance, particularly regarding the responses of such people to cultural trauma of the first magnitude, and others from the "applied anthropology" aspect, relating to choices possible in official and mission policies in the wake of such a destructive experience.

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1. The actual field survey, covering approximately five days, was made in the company of Colonel Elliott Smith, District Commissioner in charge of relief operations, and included discussions with virtually all of the Government technical personnel, with representatives of the one Mission body operating in the area (the Anglican Mission), and through interpreters with some of the Orokaiva leaders. Discussions were held, too, with the Administrator, Colonel J. K. Murray, and other administrative personnel at the capital, Port Moresby, all of whom had been in and out of the devastated area from the beginning, and relevant official records were made available by them.

[p 16-A]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a carefree life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthropologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Part III

Friendship and Kinship: An Attempt to Relate Two Anthropological Concepts[1]

5

Erik Schwimmer

THE PROBLEM OF A DEFINITION OF FRIENDSHIP

121 A universally applicable definition of friendship is difficult to arrive at. Nonetheless, the sentiments attached to the concept of friendship have, to anyone with anthropological experience in non-Western societies, the appearance of being universal. But even if the sentiments are universal, it is impossible to designate categories of persons, recognized in all cultures, between whom the sentiments of friendship normally prevail. The term 'friend' is, in many languages, non-existent or indistinguishable from 'kinsman.'

One may argue, as Paine has done (this volume, pp. 117–37), that friendship is a relationship found only in societies of a certain type. Thus, friendship would be personal and private and have characteristics such as autonomy, unpredictability, and terminality. Paine argues that societies which have friendship in this sense tend to be technologically advanced and complex in their socio-political structures. While one can find no scholarly objections to this approach, it leaves unsolved the question which concerns me in this essay: can we find a definition of friendship such that the symbolic idioms in which the sentiments of friendship are expressed in all cultures can be comparatively analysed?

Clearly, we cannot do so directly as these symbolic idioms are part of a vast variety of classificatory systems found in different societies and the place of friendship in these systems depends on their overall arrangement. We can, however, start from a universal type of association which is initiated by mutual attraction and which is maintained by the exchange of intrinsic benefits (benefits arising solely or largely out of the association itself). We can then inquire whether there is a universal relation between this phenom-

101 122 [114]

1 This essay is based on research carried out in the Northern District of Papua in 1966–7 and 1970 (with the financial help of the Canada Council and of the *Project for the Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific*, directed by Dr. H. G. Barnett). My wife, Ziska, helped in data collection, especially for the section on *jao* relationships. Dr. T. F. S. McFeat and Mr. A. Tanner read the manuscript and made useful suggestions.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis,-and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

NOTES

101 1. The classic works on the Orokaiva are Williams (1928, 1930).
114 Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

114 2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie
128 Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

824 3. "A principle of gradation by which elements are related to the
431 whole of which they form part."

4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui
121 was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.

2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: *'Iji aramiko ambo ainge eaora. Amina pure mo umbae. Amora pure re Keriso na ikena umbasi ea avo.'*

3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.

4. M. Panoff reports that *kuma*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 tasks but also travel, rest, meals and miscellaneous "other tasks" – the most mentionable of which are cooking and washing. The phrase "dépense d'énergie" must thus be taken very broadly.

5. The present author's knowledge of Greek antiquity is at undergraduate level. From an anthropological viewpoint, an interesting general discussion of Hesiod will be found in Jaeger (1946). But see also Vernant (1965: 19–47) and Detienne and Vernant (1974: 59–124).
6. The translation of ΔΙΚΗ as 'justice' obscures an interesting difference made in Greek between two kinds of justice. *Themis* (ΘΕΜΙΣ) justice as dispensed by the early kinds and nobles whereas ΔΙΚΗ appears to be a system of dispute settlement by compensation payments to the injured party. The fundamental meaning of ΔΙΚΗ is 'due share' (Jaeger 1946: 103). ΥΒΡΙΣ would then be to refuse compensation and seek justice by force.
7. Vernant's explanation (p. 222) of this classification is as follows: "Dans la perspective de la valeur d'usage, le produit n'est pas vu en fonction du travail humain qui l'a créé, comme travail cristallisé; c'est au contraire le travail qui est vu en fonction du produit, comme propre à satisfaire tel besoin de l'usager . . . Marx écrit, de façon frappante, qu'en qualité de valeur d'échange, la marchandise n'est plus envisagée au point de vue du service qu'elle rend mais du service qui lui a été rendu par cela qu'elle a été produite." (*Critique de l'Economie politique*, p. 32.)
8. 121 461 824 It has been objected that a work of art differs from a taro in that the former is a statement about patterns in the universe while the latter is not. My own view of taros, however, is that in the sense of Hjelmslev, they ought to be regarded as sign as well as substance; as signs, which they are whenever handled ritually, they do contain statements about the universe. On the semiotic issues involved see Hjelmslev (1953), Schwimmer (1977a, 1977b).
9. 114 For relevant ethnographic data on Orokaiva, see Williams (1928, 1930); Waddell and Krinks (1968); Schwimmer (1967, 1969, 1973, 1974a, 1979a). For specifically semiotic investigations on Orokaiva, see Schwimmer (1974b, 1977a, 1979a, 1979b.)
10. 121 Searle-Chatterjee demonstrates that group identity among the polluted caste groups remains firm and positive. It appears to be threatened only by the attempted suppression of the notion of caste by the central government. If this should ever succeed, caste identity would be threatened, because public belief in its toughness, hotbloodedness, honour etc. would be lost.
11. While I have learnt a good deal from Parry's fascinating analysis of the Mahabrahmans, I wish to dissociate myself from Parry's comments on Louis Dumont, as it would not be very difficult to reconcile Parry's findings with Dumont's theory.
12. I wish to acknowledge a debt to Mr. Edwin Ardener who suggested this argument to me during conversation at the York conference. He is not responsible, of course, for what I did with it. A rather similar point is made by Dumont (1977: 118, 182).

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 577 305 17. A discussion of work specialization among Orokaiva (of which there is but little) will be found in Schwimmer (1967). An interesting type of specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa; donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena. Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa eto i gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure galha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure galha avo earora. Eto donda matu nunuga ena avo indie iruetera avo. Aravorate, ungo kiaekine eto God na taekena avo umbuto India. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora.*" Robert, Sivepe, 1966.

694 754 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puruna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ACKNOWLEDGEMENTS

This research was made possible through my appointment as an assistant to the Department of Anthropology at the University of Oregon. I was commissioned to write a report for a project directed by Professor H. G. Barnett, entitled 'A Comparative Study of Culture Change and Stability in Displaced Communities in the Pacific'. This commission enabled my wife and myself to visit the Northern District of Papua for one year. I also received help from the Canada Council and the Killam Foundation.

I should acknowledge here the contribution made to this research by my wife, Mrs. Ziska Schwimmer, who not only bore with it but made many valuable observations which have been incorporated in this work. Among others who were helpful, kind, encouraging and inspiring in the field I should mention: Dr. R. Crocombe, executive officer of the New Guinea Research Unit of the A.N.U.; Miss Nancy White, a missionary and collector of valuable Orokaiva texts; Mr. M. Lean, head teacher of the Sasembata mission school; Dr. A. Radford, director of the Saiho hospital; Mr. C. Searle, a planter of Awala; their wives; and many other individuals attached to the mission and the administration.

My Papuan interpreters, research assistants and chief informants were the following: Mr. Stephen Oriri of Inonda; Messrs. Harold Heru, John Douglas and Brian Orua of Hohorita; Messrs. Robert Nanisi and Leon Bhagi and Miss Patricia Jove, of Sivepe; the Rev. Albert McLaren of Sasembata mission station, and Mr. Walter Waki of Popondetta. I owe a very special debt to Mr. Cromwell Burau who stayed with me for three weeks and communicated to me some of his deep insight into Orokaiva culture: and to Samuel Jovareka, our Orokaiva father, of Sivepe.

I should like to thank also some of the scholars who, for better or for worse, have helped in the development of this work by their encouragement, criticism and information; in alphabetical order: Dr. Homer G. Barnett, Dr. Cyril S. Belshaw, Dr. Kenelm O. L. Burridge, Dr. A. Capell, Dr. Peter Carstens, Dr. Jan Pouwer and Mr. Adrian Tanner. Finally I would thank the Social Sciences Division, Scarborough College, University of Toronto, for excellent secretarial services.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
423 the Northern District of Papua in which land previously held under customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from official files. Where recorded information was not available,
124 estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During
122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Musu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

I am indebted to the New Guinea Research Unit of the Australian National University for generous financial assistance. I wish to thank the Chief Commissioner of Land Titles (Mr D.J. Kelliher) and members of the Commission in Popondetta and Port Moresby; officers of the Department of Agriculture, Stock and Fisheries in Popondetta, and of the Department of District Administration in Popondetta, who discussed various aspects of the project and assisted me in every possible way; Mr Cromwell Burau, Mr Russell Clarke and Mr Napier Boraba who helped greatly by interpreting both Orokaiva language and culture; Mrs Yvonne McMahon who typed a manuscript which was at times barely legible; and the Ombi-Tara villagers whose warmth, hospitality and enthusiastic co-operation made our stay so enjoyable. Helpful comments on an earlier draft were made by Dr R.G. Crocombe, Mr E.K. Fisk, Mr G.R. Hogbin, Dr R.T. Shand, Mrs S. Faircloth and Mr W. Standish. I am particularly grateful to Dr R.G. Crocombe, Executive Officer of the New Guinea Research Unit, for his advice and encouragement at all stages of the project.

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broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepe, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepe, with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepe a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hohorita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Croccombe, Hogbin, Rimoldi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader.
177 A leader, he said, must be very smart and understanding, have a lot
623 of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[157] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegase. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence
[559] disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

123 to help others; he spoke softly and gently but when necessary could be
554 firm and tough; furthermore, he had a relatively wide experience of
159 the outside world. He had been a hunting leader before this task was transferred to the representative of the church council; he was also a leader in football. He came of a lineage with small land holdings in the Sivepe area, but his father had bought rights to additional holdings (with money Robert had earned) and his mother's brother had given him the use of other blocks Robert will eventually inherit.

159 When we came to the district he had just started his new house and was living, like many others in a small older one he had brought from Old Sivepe. He sold us his new house and stayed in the smaller one until we had gone. Though his house was thus among the most primitive in the village, it attracted more village visitors than any other; Robert and his rather attractive wife were popular. When the woman's club house was to be built, and when Lawrence had given the land, it was Robert to whom the women turned as a work leader. It was also Robert who decided that the work on the village houses and the mission hospital had more urgency (and that the clubhouse had better wait until it had ceased being a pawn in female factionism). Robert went to Port Moresby for a few months after a violent episode in his tumultuous marriage, hoping he would earn enough money to open a trade store.

He had about four years of working experience outside the village, as a houseboy, with the A.P.C. and on road work. Since then it was his ambition to start in business; in the early sixties, Jegase seems to have made some attempt at a trade store with disastrous results. He hoped to do better the next time, but a trade store opened up in an offshoot of Sasembata village just next to Sivepe, so that this is destined to remain a dream. Robert composed several songs over the year, and was constantly practising his drum. People usually waited for him before a dance practise could start, though he was not formally the dance leader. He also managed all the diplomatic maneuvers necessitated by our presence. He did this with great honesty; I [123] could always rely on all he said. Indeed, if it had not been for him [145] and his father, I wonder whether I could have come to grips with Sivepe at all. He also piloted us through the maze of the Orokaiva exchange system. He was the only person who never imposed on us, never asked for gifts. There was perhaps some calculation in this, as we were more disposed to respond to generosity than to the sharp trading engaged in by some others.

He had stood as a candidate for the council two years earlier but had been defeated, partly due to opposition from his affines. His first formal leadership role (apart from hunting and football) was as representative for Sivepe on the land adjudication committee. His father-in-law would have been better qualified, as he knew the land boundaries better, but he could not hold both committee posts simultaneously. It was interesting to see that in this situation, where the

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Mount Lamington

A Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific

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REPORT NUMBER 9

CULTURAL CONSEQUENCES OF A VOLCANIC ERUPTION EXPERIENCED BY THE MOUNT LAMINGTON OROKAIVA

By Eric G. Schwimmer

Published by the Department of Anthropology
University of Oregon
Eugene, Oregon, U.S.A.
1969

[p.1]

LIST OF CONTENTS

	Page
List of Tables	v
List of Maps	vii
Preface	1
PART I: INFLUENCES EXTERNAL TO THE COMMUNITY	
Chapter 1: The Eruption and Evacuation of Survivors	5
Section 1: Mount Lamington: Cosmic Centre and Volcano	5
Section 2: Preliminaries of the Eruption	6
Section 3: The Day of the Eruption	10
Section 4: The Beginning of Administrative Action	12
Section 5: The Decision to Relocate	14
Chapter 2: Physical Environment	23
Section 1: General Remarks	23
Section 2: Climate	24
Section 3: Topography	26
Section 4: Resources	33
Chapter 3: Social Environment	41
Section 1: Opportunity for Contact with Outsiders	41
Section 2: Contacts with Closely Allied Villages	43
Section 3: Other Contacts Within the Sasembata District	48
Section 4: Other Contacts with the Waseta "Tribe"	49
Section 5: Contacts with Other Orokaiva	53
Section 6: Contacts with Indigenous Office-Bearers	55
Section 7: Contacts with Chinese	60
Section 8: Contact with the "Taupa"	61
Section 9: Contact with Americans and Returned Ancestors	67
Section 10: Self-Group Image	69
Section 11: Acculturation	75
Section 12: Impact of External Influences on Community Organization	82
Chapter 4: Contact with Congeners	93
Chapter 5: Disease	95
Chapter 6: Government Welfare Efforts	97
Section 1: Relocation Plans and Their Implementation	97
Section 2: Economic Assistance	107
Section 3: Social Services: Health Assistance	111
Section 4: Social Services: Education	115
Section 5: Attitudes Towards Government	1211

22: Schwimmer E-4,5 (1966-1967) 1969 GJ23 Orokaiva GJ23
Mount Lamington

Chapter 7: Mission Welfare Efforts 123
Section 1: Mission and Community 123
Section 2: As Case History: Women's Organizations and the Mission 125
Section 3: The Mission and Traditional Religion 129
Section 4: Social Services 131

Chapter 8: Selection of Emigrants 133

PART II: INTERNAL INFLUENCES

Chapter 1: Size and Distribution of Relocated Community 135
Section 1: Statement of the Problem 135
Section 2: Spatial Arrangement 135
Section 3: Social Groups 139

Chapter 2: Socio-Economic Status 144
Section 1: Age, Sex and Marital Status 144
Section 2: Division of Labour 145
Section 3: Education, Occupational Skills, Money Income 150

Chapter 3: Degree of Homogeneity of the Community 153

Chapter 4: Acculturation at the Time of Resettlement 155

Chapter 5: Familiarity with the Homeland 159

Chapter 6: Addition and Loss of Community Members 160

Chapter 7: The Role of Mediators in Development 163
Section 1: Expatriates 163
Section 2: Papuans from Other Districts 167
Section 3: Residents of the Community 169
Section 4: Marginal Individuals 174

Chapter 8: Factionalism 176

Chapter 9: Adherence to Tradition 179
Section 1: Conflicts between Two Conceptual Systems 179
Section 2: Controls Operating for and Against Continuance of Tradition 181

Chapter 10: Esprit de Corps 184

Chapter 11: Epilogue - The Case of Hohorita 186
Section 1: Comparison Between Resettlement of Sivepa and Hohorita 186
Section 2: Physical Environment 189

128

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Section 3: Social Environment 191
Section 4: Leadership in Koborita 194
Section 5: Internal Influences of the Eruption 197
Section 6: Conclusion 199

Bibliography 201

Statistical Tables 205

Maps

Appendix: Outline of Factors Influencing Change and Stability (Variables required to be investigated by field assistants cooperating in A Comparative Study of Cultural Change and Stability in Displaced Communities)

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

LIST OF TABLES

Table 1: Casualties of the Mount Lamington Disaster

Table 2: Adult Population of Multi-Clan Villages in the Saiho Census Division, 1966

Table 3: Monthly Rainfall for Awala, 1955-62

Table 4: Monthly Rainfall for Popondetta 1955-61

Table 5: Seasonal Variations in Mean Time Spent Per Man-Week on Subsistence Activities in Sivepa 1964

Table 6: Northern District, Population 1966

Table 7: Food Plants Per Household, Inonda and Sivepa Compared

Table 8: Activity Patterns of Households in Sivepa and Inonda

Table 9: Consanguineal Linkages Between 51 Sivepa Informants and Other Villages, Classified by Degree of Network Density

Table 10: Changes in House Design, House Construction and Domestic Amenities in Sivepa, 1936-1966

Table 11: Hospital Admissions in St. Margaret's (Anglican) Hospital at Eroro, Northern District, Over 1966

Table 12: Revised Estimates of Higaturu Local Government Council for July 1966 - June 1967

Table 13: Total Expenditure on Public Health in the Territory of Papua during the Year Ended 30th June 1965

Table 14: Enrollment in Primary Schools of the Anglican Mission in the Northern District

Table 15: Household Composition, Sivepa and Inonda Compared

Table 16: Population by Age, Sex, Marital Status and Clan, Sivepa and Inonda

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

Table 17: Sivepe: The Allocation of Time Within Activities. A Detailed Analysis of 28 Occasions Covering 19 Individuals 128

Table 18: Sivepe: The Division of Labour by Age

Table 19: Division of Labour Between the Sexes Among the Orokaiva in 1923

Table 20: Education and Occupational Experience of the Jegase and Seho Clans of Sivepe Compared - Adult Males Only

Table 21: Hohorita Male Adults in Skilled Occupations

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

MAPS AND PLANS

128

I Map of Northern District of Papua

II Map of the Devastation Area After Mount Lamington Eruption

III Map of Sivepe Land Holdings

IV Map of Inonda Land Holdings

V Plan of Old Sivepe Village

VI Plan of New Sivepe Village

VII Plan of Old Inonda Village

VIII Plan of New Inonda Village

IX Area Map of Sivepe and Closely Allied Villages

X Tribal Map of the Northern District

XI Plan of Sasembata Mission Station

XII Plan of Modern Orokaiva House

XIII Map of Hoborita Land Holdings

XIV Plan of Hoborita Village and Mission Station

PREFACE

121 The following report presents data designed to be used in
"A Comparative Study of Cultural Change and Stability in Displaced
Communities," a project directed by H. G. Barnett. The report
follows closely a list of topics specified as variables in the
study. In a preliminary statement on the project, Professor
Barnett (n.d.) states the reasons why the Orokaiva, living on the
[731] slopes of Mount Lamington, were included in the project. In 1951,
Mount Lamington erupted, some 4,000 people were killed, and the
survivors were resettled under close governmental supervision.
This resettlement, as a consequence of a natural disaster, makes
the Orokaiva case comparable to the other 11 cases included in
Professor Barnett's study. The focus of our attention must
therefore be the social and other cultural consequences of this
government-sponsored resettlement.

731 I should at once note certain differences between this
101 Orokaiva case and most of the others included in the study. Mount
Lamington forms the centre of a rather populous district which is
[133] segmented into very small units socially and politically, but
which forms a definite unity in cultural respects. (See Map 1.)
[361] Differences in language, social structure, political and economic
organization and material culture, in a wide area North of Mount
Lamington, and included in the Popondetta, Soho Popondetta and
Saiho divisions of the Northern District, are so small as to be
almost insignificant. Only one of the refugee camps established
immediately after the eruption was outside this culture area, and
its occupants were shifted back to the Orokaiva district within a
few weeks. From that point onwards, people were no longer separated
from their culture but only from their land. As resettlement
proceeded, even separation from traditional land holdings was soon
terminated, so that the typical "resettled" village, though in a
different spot from the pre-eruption village, still had access to
the same land holdings.

121 In these circumstances, many of the traumatic experiences
731 which are the subject of the other case studies in this project are
not replicated in the Orokaiva case. There is no question, however,
about the serious social consequences both of the eruption and of
the large-scale government intervention that followed. To trace
these consequences at the present time is no easy task. As all
the Orokaiva returned to their own land a number of years ago, a
great part of this report is an historical reconstruction and the
Orokaiva are neither devoted nor accurate historians. Most
happenings are covered over in their memory just as the jungle
rapidly covers over past cultivations and past settlements. Some
songs, some myths, and the harrowing personal experiences remain.

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory, feelingly recounted. But the fine points of organisation of the resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research
649 procedure. I should also, however, mention one or two general facts as a background to my report. The British Protectorate of New Guinea was proclaimed in 1884; the Territory of British New Guinea was placed under the authority of the Commonwealth of Australia in 1902. The effective conquest and pacification of the Northern District in which the Orokaiva live, occurred between 1894 and, say, 1906. It was to some extent speeded up by the presence of some gold miners who had to be protected and the road from Buna to Kokoda was built towards the end of that period.
[799] After the first world war, Europeans set up rubber plantations on a small scale; the Anglican Mission became established, especially along the coast. The process of pacification was a somewhat bloodthirsty event. If the Orokaiva are asked to state when they discovered what they call the "new day," i.e., modern civilisation, they refer neither to this conquest, nor to the events following the eruption, but rather to the second world war and its aftermath.

649 The Japanese conquered most of the Northern District in
177 1942 and were driven back, in the beginning of 1943, by the combined Australian and American forces which crossed the Owen Stanley range and defeated the Japanese along the Kokoda trail. Some Orokaiva collaborated with the Japanese and killed or betrayed Europeans who were left behind in the district. When the allied forces came, the Orokaiva were able for the first time to establish really comradely relations with white men who, moreover, were generous with gifts and left behind much valuable equipment. The returning Australian government developed a new colonial policy after the war eliminating the old use of compulsion and corporal punishment while the Anglican Mission and later the government did much to improve educational facilities. Access to trade goods on a major scale began about that time. Training in the handling of cash crops, notably coffee, also dates back to the immediate post-war period. The eruption, which occurred in 1951, certainly had significant social consequences, but it is not easy to keep these consequences, i.e., the modernisation that can be directly ascribed to government measures arising out of the eruption, distinct from the policy of social development that was being followed at this time throughout the district.

731 With regard to the eruption, we must distinguish three types of effect: first, a part of the district, notably that occupied by the Sangara tribe, felt the direct blast and suffered very heavy casualties, while all survivors were evacuated; secondly, a part of the district, occupied by several tribes, was endangered

[13] by the eruption though casualties were comparatively light and was also evacuated, though opened up again shortly afterwards; thirdly, a part of the district was not evacuated at all. Some villages in this last-mentioned part of the district became hosts of evacuated groups.

[12] In the present study, as in all others included in the project, two villages were chosen for special study, one that belonged to the evacuated category and one other. Furthermore, both these villages were studied at two points of time, namely the time of the eruption and the time of the field study. In order to keep to this specification, it seemed less expedient to choose as the village for special study one of those which had been depopulated by the blast. The survivors of such villages were brought together into much larger villages which still exist today and which form an interesting subject for study but reconstruction of the pre-eruption situation is virtually impossible. Often the few survivors that can be found were very young when they managed to escape and it was precisely the matured people who almost always died. The site itself has mostly disappeared.

The evacuated village chosen for special study is therefore one where few deaths occurred due to the eruption and where the period of enforced absence was short. The disadvantage of this choice was obvious: the effect of the eruption was comparatively mild; the difference between the resettled village and the pre-eruption village was comparatively small. As against this, there were two considerations: the most traumatic experience for the depopulated villages was, of course, the loss of so many friends and relatives. Here the effect of depopulation was, from every viewpoint, far more severe than the effect of relocation. It would have been almost impossible to keep the focus of the study from shifting away from the variables chosen for comparison. Furthermore, Sivepe, the village chosen for study, had been the subject of a number of previous investigations by the New Guinea Research Unit of the Australian National University, so that useful supplementary data were to hand.

As the control community, I chose Inonda, which had similarly been a sample village where the New Guinea Research Unit had collected data. This village belonged to the category that had never been evacuated, but had played host to a village of evacuees, Sewa, which has close consanguineal links with Inonda. One might argue that a better choice of a "control community" would be one lacking all links with the eruption, but such a village would have been hard to find close to the mountain. I feel sure, in any case, that the presence of the Sewa people after the eruption did not affect the variables in which this study is interested.

While the material on Sivepe and Inonda fulfills the formal requirements of this study, I felt I should present a somewhat

121 broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepe, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

101 Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepe, [122] with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepe a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. [114] Fortunately, we had extremely competent research assistance at [124] Hohorita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

123 The basic source of the material that follows are my own field notes. These are supplemented by government records, the 129 publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimoldi, Waddell. I also collected tape recordings containing 50 basic 126 documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans 115 who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. 127 Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the Ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain. [775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to that contention. As against this there is the testimony of missionaries (Toulin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington [776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

[774] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

823 collection of vernacular texts written by a young man from Kiorota
793 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Kohorita and belonging to the Sengara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kenekari, "The Separation of Sumbiripa." This Sengara version is notably the richest in mythological content.

[179] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepa version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

133 Just when these preliminaries started is not clear; it may have been one week before the disaster or several weeks. The rumbling and tremors in the mountain, which were usual enough, became more severe; smoke was beginning to come out of the crater in thick puffs high into the sky; the number of craters rose from one to four or five. Ash covered the peaks, areas along the slopes became burnt; sometimes there were flashes of fire; several landslides appeared as brown streaks in the forest. Swarm-pattern earthquakes became widely felt throughout the area. On Thursday, 18 January 1951, the more active phase of the eruption began (Taylor, 1958). The emission rate increased throughout the day; the smoke gushing forth "at a great rate" varied from black to gray and spasms were noted in the crater activity. The emission was described by more distant observers as a slow-moving continuous dark-gray column ascending to many thousands of feet. A survivor who looked at the mountain through a telescope on that day noticed that a large hill had built itself up between the hills at the foot of Lamington and the mountain at the rear. That night, the mountain was shooting fire like an immense fire works. In the Sivepo area, at this time, and on Friday, stones were falling on the gardens, earthquakes were very severe and some houses had collapsed.

731 The Orokaiva interpretation of these events will be clear from what I have already written. It is explicitly supplied by Benson (1955) who reported that the fearsome happenings in the mountain were ascribed to the anger of Sumbiripa. I shall show later that the same view was taken in Sivepo. The clearest description [114] of the state of mind of the people close to the mountain (those who were mostly to become the victims of the blast a few days later) was given in a letter by Margaret de Bibra, head teacher at Martyr's School in the Sangara Anglican Mission. Miss de Bibra died during the eruption but her letter was found after her death (White, n.d.).

> The Papuans--well, most are calm, many are apprehensive and some really frightened, especially those whose villages are near the mount. It is all understandable, in fact it is to their credit that there is no panic. Lamington has not been a volcano within the memory of living man, nor in the legend of the [823] people. (But see above, E. S.) True, Lamington is feared as the home of spirits and no local man--even Christian--will venture to the top. As one of our Church Councillors said: 'The mountain people do not understand. They are afraid. We understand a little and we are afraid too. Our fathers did not know of it. The trembling of the earth--yes, but not

731 the fire. At night it is like a torch,
and we do not understand the sign.'

We cannot be entirely sure what the mountain people would have done had they not been under European influence. Informants at Mohorita told me that the people wished to run away, but that the Europeans persuaded them to stay. It is likely that people seriously considered leaving the mountain during the few days before the eruption, but it is also likely that they feared the dangers and troubles that would have followed their departure. Where could they have gone? How could they have found food? Most important of all: would other clans occupy their land during their absence? The evidence shows that, in the circumstances, the mountain people contented themselves with statements of their apprehensions to European authorities and placed upon them the responsibility of deciding what should be done in this unusual and frightening predicament.

731 The two main power centres of the Orokaiva district at that
657 time were both very close to the mountain (see Map II). The headquarters of the Northern District government administration was at Higaturu; Martyr's School and the main mission centre was at Sangara; both these places were subsequently destroyed by the blast and their residents killed. These were the foci of decision. Two of my informants were able to tell me something of what happened there: Fa. Albert McLaren, who was at Sangara until the day before the eruption and Mr. C. Searle who visited Higaturu on Friday, 19 January. Both told me of apprehensive Orokaiva asking European authorities what they should do.

The District Commissioner decided to discourage the people from leaving their home villages. He maintained throughout that there was no need to worry about the mountain. The circumstances that led him to this decision were described to me by Mr. Searle, by Mr. Paul Sebire, Assistant District Commissioner, Popondetta, in
[133] 1966 and by other informants. There had been several earlier eruptions in the district, one at Tufi in 1943 and another at Rabaul in 1937. The District Commissioner at Higaturu, Mr. Cowley, was well informed about the former while the latter had been witnessed by the Chief Justice of the Territory, Mr. M. Philips. The District Commissioner asked the Chief Justice for an opinion and the latter overflew the mountain on Friday, 19 January, to assess the situation. The Chief Justice advised that evacuation of the station was unnecessary. On the assumption that Mount Lamington was like the other volcano which he had seen in eruption, The Chief Justice believed that Mount Lamington could not be very dangerous, seeing that emissions on such a large scale had already occurred. On that premise the pressure built up inside the mountain had already been reduced, and only relatively harmless cold ejecta could now be expected.

A [See Cat. 118, pp. End Map 2(A)-End Map 2(B)--Analyst]

731 This line of reasoning was spread around fairly rapidly.
657 According to Father Albert, a message from the District Commissioner was read in churches on the Sunday after the Chief Judge's visit, i.e., on the morning of the eruption. This message said that the volcano would erupt, but there would be no reason to worry. Ashes would come but they would be cold. People should not run away. Not only the Churches, but also the Village Constables were advised in these terms. The Village Constable at Sivepe gave me a somewhat different description of the District Commissioner's message, but it was equally reassuring. Supposedly, there was water under the volcano which would come out sooner or later. The people should be told that this would happen. People were told, said the Village Constable, people waited two or three days and then the mountain blew up.

As Sivepe is not particularly close to the district centre of Higaturu, we may notice that district organisation in 1951 must have had a rather efficient communication system, using both the Church network and the Village Constable network. The Village Constable at Sivepe told me that he used to be in very regular contact with Higaturu and that the communication came to him during a routine visit. He added that he had been asked to return the Higaturu the following Tuesday for another meeting about the volcano.

In view of the subsequent events, there has naturally been criticism of the District Commissioner because he did not order the evacuation in time while he did evacuate his own wife and child. In his defense it may be said that he was expecting a proper vulcanological investigation that would have taken place as from Monday, 22 January. Furthermore, by calling a meeting of Village Constables for Tuesday, 23 January, he showed serious concern to keep the population informed and protected. Finally, it would have been hard for two laymen like himself and the Chief Justice to spot the difference between preliminaries of the "Vulcanian" type of explosion, similar to those of Rabaul and Tufi which they expected and the disastrous Peléan explosion that actually occurred.

731 There is no evidence that any Orokaiva people fled their villages before the eruption. This is striking because their own interpretation of the events, namely the anger of Sumbiripa, was a frightening one indeed. We shall gradually come to see that the alternative of leaving their villages was, to the Orokaiva, perhaps more frightening still.

Section 3: The Day of the Eruption

121 As the eruption itself is the central event of this entire
128 report, I shall dwell upon it in some detail. I shall discuss it
from five vantage points: the vulcanologist's, the experience of
the Sangara people, the Sivepe and the Inonda people, and finally
133 the action of the administration. The vulcanological aspects have
been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption
731 of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours
on Sunday, 21 January, 1951, a paroxysmal explosion burst from the
crater and produced a nuée ardente which completely devastated a
surrounding area of 68 square miles." This explosion had a marked
resemblance to that of Mount Pelée at St. Pierre on Martinique in
1902, when 29,000 people perished in a few minutes. The effect of
the Peléan type of explosion is very different from the more usual
one which is called "Vulcanian," and which occurred, for instance,
at the famous eruption of Vesuvius described by Pliny. One may
compare it, rather, with the effect of an atomic bomb; the lethal
effect of the nuée ardente seemed to be due mainly to sudden damage
to the respiratory system caused by inhaling hot dust. Almost 4,000
people were killed. Destruction in the inner zone of devastation
was almost complete: the rain forest on the slopes was flattened
and in some places the earth was swept bare, not even stumps
remaining as evidence of the previous forest cover. At Higaturu,
six miles from the crater, only one house remained reasonably
intact; most of the buildings on the government station were
carried away. Of the people who lived in this inner zone of
devastation scarcely a single one remained alive.

Taylor classified a further 2? square miles as "partially
devastated," "a thin heated strip which bordered the abrupt edge of
the zone of complete destruction." The survivors who saved themselves
by running away from the blast all came from villages in this
marginal area. The line of demarcation was rather precise; everyone
from the Sangara mission station was killed, and this station lay
just inside the borderline of the area of complete devastation. The
people of Isivita, just outside the border of partial destruction,
were mostly saved. The people now inhabiting Hohorita came from
villages such as Tunana, Seamu, Sehundoturu, all of which lie in
the area of partial devastation. From the village of Sombo, on
the boundary of the area of complete devastation, one man escaped
(Table 1).A

731 I interviewed members of 15 Hohorita households about their
[124] experiences during the day of the eruption. Some of them escaped
because they happened to have gone hunting, or were visiting their
mother's relatives; one man who had gone to the Sangara church that
morning was saved because he had gone home to Ambogo immediately

A [See Cat. 116, p. 205--Analyst]

731 afterwards, but most of those who attended church that morning were killed at Sangara. All spoke of the cloud of fire that descended after the explosion. One man described how he saw it killing people ahead of him and how, with his brother, he ran past the burnt bodies. Another man told that the wind hit him and threw him down; for hours he remained unconscious and the people who were with him had all gone.

When the blast came, everyone near the mountain began to run away from it. In this mass flight, some near the edges of the area of devastation were saved by strange accidents, such as the couple who sat down to pray and then a wind came and blew the hot dust back to the mountain. This gust of wind was mentioned by several survivors. After the explosion, a very wide area, far beyond the area of devastation, became covered with a black cloud so that the fugitives soon found themselves running in total darkness. Most of the fugitives say that they fled to the Sangara Plantation, a point directly North of their villages and outside the immediate danger zone.

Sangara Plantation lay, and still lies, on the only "arterial" road of the district, which runs from certain coastal points to Kokoda; it also lay on the branch road which led to the pre-eruption government station at Higaturu and the pre-eruption mission station of Sangara. Thus Sangara Plantation became the first rallying point for the fugitives from the Sangara side of the Mount Lamington slopes. There was, on this first day, a steady stream of people descending on the plantation but it seems that to some extent this point was regarded as a haven of safety. It lay outside the area of partial devastation; the only effect of the eruption was the darkness enveloping the plantation and the scattering of debris. [464] The plantation, where rubber and cocoa are produced, employed a number of Orokaiva men as well as men from other districts. I shall describe later how the plantation very soon became a centre for the Australian rescue and resettlement organisation. At the same time it became a base for Orokaiva men who soon began to rush back over the devastated countryside in the hope of finding relatives who might have survived.

Along the Western slopes, the eruption caused few casualties but no less terror. The greatest immediate danger to life were fallen debris, especially large stones which formed deep pits in the village grounds and demolished some of the houses. Pumice and ashes also fell over the countryside to a depth of some inches and visibility was very low. Most people moved down the mountain slope at once, along the bush tracks but mainly along the branch road running in this direction was Mr. C. Searle's estate in Awala. Like the Sangara Plantation, this lay on the arterial road to Kokoda. It seems that some of the fugitives, including those belonging to the village now called Sivepa, stayed at this plantation

731 during the night. It did not, however, become a rallying point for resettlement organisation. It was too close to the mountain. Half an hour after the eruption, crowds of Orokaiva carrying pigs, dogs and babies, were already rushing past Awala Station westwards along the road to Kokoda. All these people from the Western slopes stopped at the Waseta Mission, a few miles past Awala, as they were reassured by the presence of a nucleus of Australian organisation. The Sivepe people and others who came from a relatively greater distance, stayed at Awala the night of January 21 and some reached Waseta the next day.

Along the Eastern side of the Mountain, among the settlements along the road to Oro Bay, there was no acute danger, but there was fear. Inonda, which was chosen as the control community, was never "resettled "in the sense that its people at any time left their village lands. When they saw the ash and smoke they did, however, consider themselves in danger because of the anger of Sumbiripa. Perhaps in response to police messages, perhaps spontaneously (Inonda informants say the latter) they shifted to the Inonda air strip, which was about a mile along the road in the direction of the coast and there waited for the white man to arrive. Meanwhile, the people of Seva, a related village close to (but well without) the line of partial destruction as shown by Taylor, evacuated their village and joined their relatives at Inonda. This was a more orderly evacuation than most, because the Papuan deacon (who lives at Inonda today and whom I interviewed) had somewhat varied the District Commissioner's message when he delivered it in church on that fatal morning. Though he followed his instructions by advising the adults to remain at Seva, he also said that they had better send their children to Inonda. Thus, when the mountain erupted some time after the service, the children had already gone. Upon arrival at Inonda, the Seva people joined their hosts and camped by the airstrip.

Section 4: The Beginning of Administrative Action

If it had not been for the influence of European administration, this flight from the mountain would probably have been followed by a fairly early return. Administrative measure, at first aimed purely at the relief of distress, soon began to include measures to restrain the fugitives from returning. These measures followed vulcanological predictions, this time based on sound scientific investigation, concerning the likely future behaviour of the 121 mountain. In considering administrative action, there are four 128 aspects to be distinguished: first, the investigation as to the nature of the disaster; secondly, the organisation of food and medical supplies and other immediate relief measure; thirdly, a

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121 vulcanological study to guide future policy and fourthly, the
128 planning of longer-term resettlement, with which this report is principally concerned.

During the first day, communication was a difficult problem.
731 A plane sent to Popondetta on the day of the eruption could not land. All official radio communication channels in or near the devastation area were broken down. The government in Port Moresby was informed about the disaster by radio through a private transmitter owned by Mr. Searle and operated from Awala. In the afternoon a car containing an agricultural officer and a technician from the Anglican Mission (Mr. R. Hart) traveled from Popondetta to investigate the situation. This car, after making inquiries at Sangara Station, reached Awala and reported to the government. In the evening there was a second eruption, this time without a nuée ardente but noisier than the morning eruption, the fall of ash was heavier and much larger stones were ejected over a larger distance. The fall of ash was heavy enough to warrant the closing of the aerodrome at Port Moresby, some 140 miles away, on the following morning due to limited visibility. Searle has to stop transmitting messages from Awala as too many stones were falling and an electrical disturbance made transmission impossible. He shifted to Waseta which then became the centre of organised activity on the Western side of the mountain.

On Monday 22 January, the full resources of the administration were directed at rescue work. The Administrator, Col. J. K. Murray, and the Director of Health, Dr. J. Gunther arrived at Popondetta. Mr. Fred Kaad, an officer of the Department of District Administration (now Head of the Australian School of Pacific Administration, Sydney, where I interviewed him) was seconded from Lae to head an organisation to help the fugitives. On the Monday, he reached Popondetta and paid a brief visit to Inonda airstrip. The vulcanologist, G. A. M. Taylor, arrived the same day and began to observe the mountain which he continued to do for two years, being present for all the main active phases of the post-climactic period. At Waseta, the immediate food shortage was relieved from Mr. Searle's stores, but soon food, medicines and blankets began to be air-dropped. At Inonda, an expedition was organised to find missing people from Seva; some Seva people who had been wounded by the eruption were flown to Popondetta for treatment. Mr. W. Schleusner, from Sangara Estate, visited Higaturu and reported the devastation; he counted 200 dead. A district office was set up at Popondetta, to replace the destroyed office at Higaturu; from this office it was decided, on the same day, that refugee camps were to be established at Cape Killerton, for the Sangara survivors and all others from the Eastern and Northern side of the mountain, while the people from the West, now mostly gathered at Waseta, were to be encamped at Wairope, by the side of the Kumusi River.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Mongi to Agamahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [628] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Waseta, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

121 Under this heading there are three aspects to consider: the
128 participants, the procedure and attitudes towards the necessity of
657 relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

657 intermediaries between government and people were the village constables. These were definitely not conceived by the government in the role of consultants on matters of policy. They were, however, a crucial link in the chain of command. The government was accustomed to transmit its orders directly to the village constables whose duty it then became to see that the people under their control obeyed the orders. It goes without saying that in this moment of crisis these accustomed methods of communication were followed.

731 The people who came down on the Sangara side were (judging by the ones I interviewed) no longer together in village groups. Some just said they ran to the plantation and then to Cape Killerton, others mentioned a European at the plantation who told them to go to Cape Killerton. A small band of rescue workers entered the devastated area to look for survivors. Of the casualties they carried back, an unknown number died, but 70 were evacuated to hospitals at Lae and Port Moresby. Only three of the evacuees died. (Taylor, 1958: 48.) Other casualties were treated at a field hospital in Popondetta. After the rescue workers had buried those who had died outside the area of devastation, they proceeded to Cape Killerton. The Sova people likewise went there, but a week or so later reappeared at Inonda.

To the West of the mountain, where the casualties were far lighter, the people had a number of alternate courses of action. Data from Sivepa and the Sasembata area show no uniform reaction to the disaster even though village constables continued to exercise authority and village communities were not torn asunder. The Sivepa pattern was probably not untypical.

Here the village constable was not actually in the village at the moment of the eruption. He had gone to Kendata, a village two miles closer to the mountain, to see what was wrong with the mountain. A feast was in progress there, but only the two leaders of the feast were still at Kendata. The rest had become frightened at the smoke from the mountain and escaped to the bush. While the village constable, with four companions, was at Kendata, the mountain blew up. He returned at once to his own village, entering the wrong house because it was too dark to see. When the thunder and lightning were off, he said, he saw white stuff (pumice) on the ground; the roosters started to sing; it was daybreak; the light started again. Many of the people had gone down; he took as many as possible with him to Awala. He arrived at Awala on Sunday night. (It was not Monday night, as a superficial reading of this paragraph might suggest because on that Sunday, the day broke twice, once in the morning, and once in the afternoon when visibility improved by a temporary lull in the emission of ash.)

But not everyone went to Awala; one or two, as at Kendata, had gone to the bush for safety; some old people simply refused to leave the village land and stopped at a hamlet called Kokita,

731 [775] near the boundary of Sivepa gardens. A crippled woman who could not run away described to me how, during the period of darkness, people who had come out of the mountain (i.e., dead people) tried to kill her but did not succeed. On Tuesday, Mr. Kaad went to survey this area, prior to setting up camp at Wasata. Apart from these old people and the crippled woman, he also found that some local people of the Sasembata area, who had fled on the Sunday, had already returned and were milling round their old houses. He told them all to go to the camp at Wairopa.

The village constable's story also contained a reference to this meeting with Mr. Kaad, but introduced some of those slight twists or reinterpretation of the facts which are always characteristic of Orokaiva information. According to this story, the village constable met Mr. Kaad at Awala and said to him: "I want my people to go and see their dogs, pigs and chickens." Mr. Kaad then permitted three or four men from each village to go and look and come back again. When the people returned after their period in camp, the animals were still there. The evidence shows plainly that Mr. Kaad had to show a certain firmness to induce all these people to stay away from their villages. Even two days after the eruption they appear to have felt an inclination to return.

One interesting detail of the Sivepa experience was that the old people did not leave their village land at all on the day of the eruption. The Sangara people, who escaped from devastated villages, invariably told me that none of the older people were saved. They gave as the reason that these old people were unable to run fast enough. After obtaining this Sivepa evidence, I reinterviewed one or two of the Sangara people and it would seem that the old felt no real desire to escape from the mountain.

Kaad's arrival seems to have induced the stragglers to move on to Wasata and from there to Wairopa. The government's air-dropped supply of emergency rations began to be delivered to Wairopa. The centre of this camp was the government rest house, while the refugees began to build shanties for themselves. I collected few data about the Wairopa camp because its duration was only a few days. During this time, government and mission personnel began to arrive from Port Moresby via Kokoda, while Mr. Searle continued to do the radio communication work. The camp had to be abandoned a fortnight later because of dangerous flooding of the Kumusi River on whose banks it was lodged. Taylor describes the phenomenon as follows:

> Mudflows, which were a characteristic aftermath of the explosive activity (of the volcano), were a natural consequence of increased run-off from the denuded slopes and of the great abundance of loose fragmental material. The run-off became great rumbling torrents of viscous mud

81

> and assorted debris which periodically descended the watercourses . . . An air inspection of the headwaters of the Kumusi River was made on 8 February, 1951, and the camp was seen to be in an extremely vulnerable position. (Taylor, 1958: 56-57)

The camp was evacuated and a few days later the resthouse was swept. An evacuation camp was established at Ilimo, a few miles West of the Kumusi near the road to Kokoda. This is the camp I shall describe in some detail in subsequent chapters. A photograph taken of Wairopi Camp by Dr. Taylor indicates that much building activity must have been going on during the short tenancy of that camp (Fig. 104). It also shows the torrential flood which necessitated departure.

The camp at Ilimo, to which the displaced communities were now removed, became an interesting experiment in social education and a rather influential one, due to the farsighted leadership of Mr. Kaad. It will be discussed in later sections. The maximum population of this camp was around 2,000 but before the end of February some 500 of these persons had already been permitted to return home. Reappraisal of the danger zone by the vulcanologist led to a redrawing of the boundary, such that areas West of the line drawn from Waseta to Sairopi were resettled; certain groups closely related to the population of the resettled area left the camp to stay with their relations, thus soon reducing camp population to 1,000. Meanwhile, rations were still distributed, as needed, to resettled groups. By the end of May, Ilimo camp was evacuated and resettlement entered a new and more permanent phase.

In this second phase, the boundaries of the danger area were redrawn again closer to the mountain. By this time--though the vulcanologist could not have been sure of this yet--the paroxysmal activity of the mountain had ceased. The areas resettled were all well outside the boundaries of full or partial devastation. The entire road from Popondetta to Ajaka was opened up for unrestricted settlement, and the road from Saiho to Kendata was opened up as far as Kongohambo (just past the Sasembata Mission Station). The areas between these road lines and the mountain were still declared unfit for habitation, though it was recognised that the resettled villagers would use these areas for gardening and hunting.

Before discussing this phase of resettlement further, I should refer to the other fugitives who made their way to Cape Killerton. This site had been chosen because it was clearly outside the danger zone and accessible to ship-borne supplies. On the other hand, there soon proved to be a shortage of drinking water. After a week Cape Killerton was abandoned as a resettlement

731 camp and the population shifted by ship to Oro Bay. Two camps were established in this area: one at Eroro Bay where the Sangara survivors were settled and one at Oro Bay for people who had likewise fled in the direction of the Sangara Plantation but who were not members of the Sangara tribe. Most of these came from farther West and are sometimes referred to as the Isivita people. The Seva people who had gone to Cape Killerton in response to official instructions did not stay at either of these camps but made their way back to Inonda. This was consistent with a general pattern for groups who were offered hospitality by undisturbed villages to be allowed to leave the camps, while continuing to receive such subsistence rations as they needed.

In April, the Oro Bay Camp was emptied out by the device of transporting batches of 35 persons every other day to Cape Killerton, trucking them to Popondetta, flying them to Kokoda and making them walk the 20 miles to Ilimo. The Sangara people were shifted from Eroro Bay to Popondetta, and later settled in a new village site at the boundary of the Sangara tribal domain, at Irihambo. Thus, by the end of May, nobody remained in the evacuation camps, but all the victims had either gone back to their old villages, or been allotted to new resettlement villages, usually along the boundary of the restricted area near the mountain.

What were the attitudes of the Orokaiva towards the necessity of relocating? In order to answer this question we must, first of all, distinguish between the different types of situation baldly sketched in the preceding paragraphs. First, relocation occurred at different points in the history of the volcanic eruption: (a) immediately following the first disastrous explosions; (b) during the two months after the disaster, when paroxysmal activity continued (especially on the 6th and 18th of February and 5th of March) and secondary activity as well as mudflows continued to frighten the people; (c) at a time then the worst manifestations of the anger of Sumbiripa seemed to be past. During the first of these periods, the necessity of government measures do not appear to have been seriously questioned. It must be kept in mind that even in the Western area, where the disaster claimed few lives, the evacuation of the prohibited areas was achieved in a day or so after the government instruction went out, at a time when the government's enforcement powers were minimal.

Sivepo informants, describing the events to me, were very emphatic about the profound fear caused by the eruption. There was little incredulity when the officers of the government told the village constables that further eruptions could be expected. We may safely assume, from our general knowledge of the Orokaiva that if such incredulity had existed, people would not have left their district so easily and the reluctance of the older ones could not so easily have been overcome.

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst suffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data:
657 people argued that the Europeans would not necessarily know what would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between the camps and the home villages. At Cape Killerton and Oro Bay,
[823] the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also
[753] stated in Keesing's report. My informants also ascribed sickness of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the
[164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much
[753] more" frequent than in any camp. It is significant, however,

731 that the Orokaiva explained these cases not by sorcery (as they
[753] regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not
[182] resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

657 The government had long followed a policy of consolidating
361 hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepe many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

[731] On the other hand, there were several factors favouring such a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

either new or of far greater size than before the eruption. Some of these still exist today and still stand out by their unusual size. When one finds a village with a population of over 200, this is almost invariably (I know of no exceptions myself) a village set up near Mount Lamington after the eruption--either immediately after the eruption, such as the present Mamuni, Awala, Soroputa, Agenahambo, Koipa, or set up a few years later, when most of the restricted area near the volcano was made available for settlement, such as Mohorita, Kiorota, Bagavaturu, Kandata (see Table 2). These more recent villages are made up of people who, immediately after the closing down of the evacuation camps, were placed in resettlement villages such as Irihambo, Koipa, Agenahambo, Kongohambo and then resettled again closer to the mountain when this became possible. In all these cases, the unusually large size of the villages is due purely to government action.

The case of Sivepo, though atypical, may illustrate this. Before release from the Ilimo camp, it was arranged that the Sivepo people would be settled at Awala, which was on the main road and at a respectable distance from the mountain. The Awala people agreed to this; the Sivepo people agreed. Thus they went to Awala and the government intended that they should stay there in a large consolidated village. One of the two main clans now making up Sivepo expressed a strong desire to return home and, as Sivepo was outside the restricted area after May, 1951 (the boundary being at Kongohambo), no objection was made but the consolidation of Sivepo with another village was insisted upon. This did not bring Sivepo anywhere near the size of one of the major resettlement villages, but some measure of consolidation was achieved nonetheless. Here we see the operation of several administrative principles. First, we see the pressure towards large villages; Awala has 250 inhabitants even now; if Sivepo and other villages in the vicinity had been added to it, as had been intended, Awala would now have something like 600 inhabitants. On the other hand, Mr. Kaad, who administered this resettlement, evidently did not believe he should exert very strong pressure. He therefore allowed the settlement of Sivepo and several other villages between Sivepo and Awala. The one Sivepo clan which had stayed behind in Awala in 1951, returned to Sivepo a year later.

We may therefore distinguish two types of post-eruption settlements: (1) very large villages created with government encouragement; (2) medium-sized villages (generally still larger than pre-eruption villages) created with government connivance. What were Orokaiva attitudes to the necessity of this kind of relocation? I find this question hard to answer because the term "necessity" (employed in the questionnaire to which this report is the answer) does not fit what I understand to be Orokaiva logic. Settlements such as Irihambo, Awala, Kongohambo were certainly regarded as "necessary" for the were reason that the government

(or in the case of Irihambo, the Bishop) had decreed them. Had these people been Westerners rather than Orokaiva, they might have asked themselves the question whether the decision of the government to prohibit the Kongohambo people, for instance, to go and live further East in their old villages was a reasonable one. However, there is nothing self-evident in the asking of such a question. Criticism of an administrative decision is, i.e., a calculation of probabilities, fiduciary responsibilities and expediencies. For the Orokaiva, the problem was not whether the government decision was a "necessary" one, but rather: what was the most advantageous action they could themselves take in the circumstances. The advantages of going back to their old village sites were obvious. But these were clearly outweighed by two grave disadvantages: first, the probability of punishment by Australian authorities and secondly, the chance (to which I shall refer in detail later) that the whole eruption might have been a punishment by the Christian God for their earlier disobedience to government and Church demands, and that further disobedience might elicit a further eruption. It seemed foolhardy indeed to challenge both the government and the mountain at the same time. In this sense, we may confidently say that the Orokaiva felt the necessity of relocation.

CHAPTER 2: Physical Environments

Section 1: General Remarks

I have shown in the last chapter that the surviving victims of the Mount Lamington disaster were resettled on land they owned (or close to land they owned) prior to the eruption. Thus, resettlement did not lead to a lasting change in physical environment. Certainly, upon their return, the people found their houses beyond repair due to damage done by stones and other volcanic materials; the village grounds were gutted with holes and some trees destroyed. It did not take them longer than a year, however, to build a new village. After the first year, they no longer needed government supplies for subsistence; they were able to plant out their own taro seedlings and re-establish their traditional crops. Nonetheless, certain minor changes in topography and resources occurred at Sivepa, and these must be briefly mentioned.

It will also be necessary to refer to differences in physical environment as between the community chosen for special study (Sivepa) and the control community (Inonda). It would undoubtedly have improved my research design if the physical environment in the two villages could have been more or less identical. I should therefore explain why this flaw could not be avoided. Ecologically, certain definite differences exist between land close to the volcano and land on the lowlying flats to the North and East: differences in soil composition, rainfall and population density, to mention only a few basic ones. Though these differences are overshadowed by near-identity in culture and language, they will inevitably intrude in a study as detailed as the present one. It would have been ideal if a control community could have been found which resembled Sivepa in ecology but which had not experienced resettlement. Such villages, however, did not exist, as all the Orokaiva on the slopes of the volcano were evacuated and underwent, in some form or other, the same kind of experiences as Sivepa. Hence, in the present chapter, a comparative study of the ecologies of Sivepa and Inonda must be undertaken.

There is a second question to which brief reference must be made here, namely the effect on physical environments of changes in land utilization. Throughout this report we shall be comparing conditions at the time of the eruption and the present. In the intervening period, cash cropping has become established among the Orokaiva on a significant scale and other significant cultural changes have taken place. We should therefore inquire what effect

121 these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout the year, both in Sivepa and Inonda. The Inonda people think that the nights at Sivepa (and on the mountain generally) are rather cold and it is true that in Inonda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [821] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [789] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inonda rainfall is somewhat below that of Popondetta; Sivepa rainfall is significantly higher than at Awala. Thus Inonda usually gets 80 to 90 inches of rain per year while Sivepa gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [821] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepa; in May-September at Popondetta and Inonda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

In October the heaviest rains begin and this is the period 132 when crops grow fastest. Thus the crops planted during the dry 241 period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

241 Food must be planted at most periods of the year as most
221 Orokaiva crops cannot be stored, but there is a difference according to the purpose of the plantings. Seed planted outside the optimal period can be grown for no purpose except subsistence; plantings made in the optimal period may be in preparation for feasts. Their purpose is not only subsistence but also abundance. The Orokaiva calendar contains a specific feasting season which immediately precedes the "planting" season. Taro planted between July and September reaches maturity between April and June. This is the season of feasts and abundance.

241 A distinction must be made between the ideological and the
221 statistical work calendar. The latter has been set out here from
924 data collected by Waddell (n.d.) in Sivepa and shows that at no period agricultural activities are confined to one particular phase of the work, such as planting or weeding or cultivating or harvesting. There are, however, clear fluctuations showing an emphasis on planting during certain periods and on harvesting, etc. during other periods (Table 5).[A] The ideological calendar, as given to us by informants, both in Sivepa and Mohorita, distinguishes seven phases related to the annual cycle of three forest trees. The calendar noted by Crocombe in Inconda (1963: 6) though more summary, follows the same principle, while differing in some minor details.

1. When the garepa flowers, the taro should be ready to harvest. (The reference is, as in this whole calendar, to the main taro harvest.) But this flowering has several phases: the flowers are first white, later yellow, finally bloodred. When some of them are bloodred, the taro is "really" ready. This is the time when small feasts are given for the owner of the land, but not yet big feasts, for it is only the first of the crop that are really ready.
2. When all the garepa flowers are bloodred, feasting time has really started. This is, in the Mount Lamington area, around Easter time.
3. Another sure sign of the approach of the feasting season is the ripening of the tauga nut (called hauga in the Sangara dialect). While garepa is watched during the time of shortage before the main harvest, tauga is watched during the time of plenty. The nuts are plentiful, delicious and rich in first-class protein.
4. At the end of May, about two months after the beginning of the feasting season, white flowers appear on the barambu tree. This is a sign that the seeds should now quickly be planted in the land. The dry period is beginning; the period when clearing and burning can be done with the least loss of fertility. As these flowers appear, feasts will still be in progress in the villages, but the old men will begin to make moralistic speeches that feasting should now be over and people should return to garden work.
5. Soon after this, perhaps a month later, the leaves of the tauga begin to fall; it is good if by that time a good deal of

A [See Cat. 116, pp. 209-210--Analyst]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the ideological pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

133 Sivepa lies on an altitude of 1,300 feet, seven miles from
Mount Lamington. Although the mountain rises to a height of 5,634
[361] feet, most present settlements are on the lower slopes, rarely very
much higher than Sivepa. A wide range of annual and perennial
[241] crops, including taro, on which the Orokaiva depend, do not grow
well at altitudes much above 1,500 feet. Thus, the eruption has
[931] had no appreciable permanent influence on the location of village
sites. The restricted area is at present a circle of two miles'
[361] radius from the crater of Mount Lamington; there are not now, nor
were there before the eruption, permanent settlements closer than
four miles from the crater.

The Sivepa terrain (if I may borrow the terminology of the CSIRO report) is characterised by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepa (see Map III)[A] is on a soil association of the Awala
land system which has an 8 to 12 inch very dark brown topsoil.
Chemical tests suggest that these loams are fertile, rich in
nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil
type, which the Orokaiva call mene (a word whose principal meaning
is night, darkness), is only one of five found in the district and
distinguished by Orokaiva by colour, texture and moisture. The
others are hebori (red), which is popular for cultivation if it is
not sandy; gindiri (stony, with high sand fraction); puau (clay)
and pesaru (swamp). Mene is the most widely used soil for gardens.

In contrast, Inonda (see Map IV)[B] is no more than 200 to
133 300 feet above sea level. It lies partly (to draw on the CSIRO
report again) on the flood plains of the Girua and Sambogo rivers
and partly in the moderately sloping foothills of the northern
side of the extinct strato-volcanic Hydrographers Range. The
Sambogo and Girua Rivers flow in a northerly direction draining
from the Hydrographers Range and Mount Lamington respectively.
They are swiftly flowing, rocky-bedded rivers which, together with
their numerous tributaries, give the area a moderate to good
drainage system. To the east the drainage system in the vicinity
of the Bubi Lakes has been blocked by recent volcanic activity and
drainage is much poorer. A vast coastal plain between 20 and 30
miles wide stretches north-westwards from the Hydrographers for
over 60 miles. Inonda lies at the southern end of this plain,
about 15 miles inland from the coast.

Crocombe and Hogbin classify Inonda soils on the basis of
134 five soil associations listed in the CSIRO survey: (i) the
Popondetta Association, with black to very dark topsoil underlain
by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

134 the sumu of Sivepo, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called tunsoma is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the Hydrographers foothills. They are gray to grey brown, and are called hora or hohori. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepo. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepo, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepo is not at all untypical for the Baiho Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepo population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jagase and Timuma clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepo clan (Seho) has greater land resources, and that the Seho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Sova Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 580 acres may be classed as good garden land, whereas the present level of subsistence gardening can be maintained with 127 acres (1963: 10).

361 In the period from January 1951-1967, the location of the
[114] villages now known as Sivepo and Inonda changed several times. In the Sivepo area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepo had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sobu
[651] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepo were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Sobo clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepo. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepo was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).

Both these shifts were connected with topographical relation-
[578] ships and social relationships outside the village. The first of
[628] them, in 1952, seems to have been precipitated by a quarrel between the Timunu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepo was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a
361 superfluity of reasons. Rimoldi was told of almost all the shifts
657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths attributed to sorcery and because of quarrels between neighboring
361 villages which were too close together for comfort. I witnessed
[628] one shift after a death of an old man where sorcery was not
[954] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his ghost. The population of this village shifted to nearby Hohorita,
[764] a move which was in any case favoured by the government. A reason
[715] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens,
241 these seemed to be predominantly in the Northeastern part of the
311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepa is again in that area.

731 Inonda experienced three shifts since the eruption: first
361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).[A] The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses
659 close together and little space between the rows--both post-eruption settlements of Sivepa and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend
[364] to belong to different clans. A modern village will contain, in
[345] addition to residences, privies for each family, while some have built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete
[575] which the Americans laid down during the war. Sivepa got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including
[591] Sivepa, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepa villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing
657 standards, village sanitation and roads. We find Wilfred Beaver,
364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

Kumusi Division in which both Sivepa and Inonda are situated. It would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922: 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

Beaver, in the report already cited, sets out his concept of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

The Pre-contact house was invariably built with a pig enclosure so that man and pig spent the night together. The Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under the houses, or elsewhere, as they wished. Since the Local Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepa was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practice, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Koborita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

Belshaw makes the following remarks about village development: "Before the eruption, a new type of village had been established in the Kohoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

three sides of it. (Administration) attempts to introduce such villages in the Higaturu sub-district had largely failed and the standard of housing was much lower. Further, the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their houses in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing" (1951: 245).

At the time of Belshaw's research the only resettled areas were those West of the Musota-Sairope line, and the villages Belshaw visited appear to have been in the Sairope area. As it turned out, the Kokoda village plan was in fact adopted in a great many villages in the Higaturu sub-district, though by no means as an immediate result of any decisions that may have been taken at Ilimo. In the Sivepe area, it seems clear that the people's first plan was to return to Pambe and only when Pambe became uncomfortable, partly through quarrels, partly through damage done by the eruption and partly through administration pressure, did they decide to build a new village in the new style. Within a radius of three miles from Sivepe, there are still a considerable number of old-style villages even today: Hamburata, Garombi, Torogota, to mention only three larger ones. Others, such as Duve and Binduta, were beginning to adopt the new style only around the time of my visit in 1966. In 1951, only those villages in which the government took a strong direct interest, such as Awala, Kongohambo, and the villages visited by Belshaw (but I could not enumerate them all) adopted the Kokoda style.

There is also a minor incompleteness in Belshaw's data when he refers to the neatly clipped grass and the rows of houses as being innovations due to the Kokoda influence. The neatly clipped grass was in evidence in 1906 and the regular rows of houses were reported by F. E. Williams (1930: 68). This was, admittedly, reported as late as the 1920's but the layout is consistent with the less explicit descriptions of Orokaiva villages given by Walker (1901) and by Monckton in his descriptions of his battles with the Dobudura and Sangara. The novelty of the Kokoda plan lies rather in the wide central field, the house design and use of materials, and the sanitation.

Undoubtedly, credit for the introduction of the plan must be given to the Ilimo experience but the spreading of the plan over the majority of Orokaiva villages must rather be ascribed to the growing influence of the Local Government Council in the 1960's.

657 Sivepa, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

877 The accessibility of facilities has also improved since
797 the eruption. Sivepa children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepa's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepa to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepa people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[213] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepe were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organised. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[295] were deprived of many of their choicest feathers at a time when
[411] headdresses had to be refurbished for dancing or spears decorated.
[579] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
Sivepe killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

There is a great shortage of both pigs and fowls for these
438 ceremonial occasions. Pigs are bought for high prices ($20 to
439 $30)--from neighboring villages and even, as Crocombe and Hogbin
say, from European planters. Fowls tend to be made available on
[435] big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield
241 economic products, those plants which are native to the district
311 and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepe sample and as shown by Crocombe and
Hogbin for Inonda (Table 7).A The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepe. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepe acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xanthosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

devote less time to the cultivation of the more laborious (but more favoured) Colocasia taro.

During the post-eruption period there have been, as we shall see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepa there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)[4]

The average Sivepa family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepa	Inonda
Coconut	Sago
Breadfruit (oga and sumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Nauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source of income. At Sivepa, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack of betelnuts is felt very strongly, as the Inonda people are as fond of chewing it as other Orokaiva. Hence, it is usually obtained

A [See Cat. 116, p. 213--Analyst]

276 from relatives who live in the mountain districts or else obtained
439 by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepa, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[199] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepa) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepa's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

241 The three introduced cash crops of significance in the two
177 villages have been rice (pre-eruption), coffee and rubber; in both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities,
[243] are perhaps better discussed in detail in a later chapter when these relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers
in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory
was no longer buying indigenously grown rubber, but a rubber
[474] cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepa. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepa and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established,
four and one-half acres in size, on which theoretically seven
men were to establish rubber stands. The Malayan trees were
planted here, as well as self-sown trees from the other plots
which were dug up and replanted. These plantings occurred shortly
after Rimoldi left. If the new cooperative venture succeeds, it
is likely that the new plot--most of which still remains unplanted--
will be exploited, but people were clearly waiting to see whether
sales at attractive prices would eventuate.

Orokaiva coffee plantations are wholly a post-eruption
245 development, inaugurated by the Agriculture Department shortly
177 after it was set up in Popondetta and greatly strengthened by the
311 setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepa, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepa, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from
five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
$50 and $100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepa coffee
was collected and promptly paid for in Garombi village, about 15
minutes' walk from Sivepa. I did not take another coffee census

245 but would estimate plantings to be about 4,000 trees, occupying
177 an area of eight acres.

Among resources which produce significant current income in
311 Sivepa and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is
434 earned by men who are normally resident in the villages. When
167 these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepa men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside
167 employment are bringing savings into the village which forms a
464 significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend
[583] it. During the year, four Sivepa men went to Port Moresby for employment and three returned; one Sivepa man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of
434 men ordinarily working outside came home for short visits. Probably
837 the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind
613 in the village. Six such split families existed in Sivepa; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

464 At the time of the eruption several Sivepa men were working on plantations; today, Sivepa people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

511 177 Capital goods, though few, should be briefly mentioned. Apart from a house and his clothing, the average man owns very little. The sum of his possessions make a very small pile: a bush knife and two or three implements, some kitchen utensils, a small box of feathers and ornaments, usually carefully locked, perhaps a few dollars of savings, and--in both Inonda and Sivapo--an interest in a coffee-hulling machine presented by an anthropologist. About half the people have a storm lantern; two Sivapo men had a pressure lamp, lit on weighty occasions only. With the exception of the valuables, these capital goods are innovations; at the time of the eruption people had far fewer, and these were mostly acquired after the second world war or from American soldiers.

433 433 Comparing the development of Sivapo and Inonda over the last 15 years, we note several significant differences in the exploitation of resources: Sivapo, but not Inonda, has rapidly expanded its coffee production in the 1960's; Sivapo but not Inonda is deriving a significant cash income from "looking after" the wives of migrants. I have referred to several other differences, but these seem to me the most significant, as they do not appear to me to follow directly from ecological differences.

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the cooperative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

571 The social universe of the different families diverged markedly from one another; the small number of extended families composing a minor patrilineage (marked by the possession of a common plant emblem) would share each other's social network and obligations to a large extent, but the same could not even be said for clansmen of different plant emblem groups. In such a culture, the term "outsider" must be situationally defined. For certain situations, only those who share a clan emblem are insiders; for other situations, only clansmen; for others, only residents of the same village, while I can also think of situations where the group of "insiders" embraces a much larger group. We may list the following set of widening concentric circles, as useful for the present study:

(a) Closely allied villages (especially Sivepe, Carombi, Binduta)

(b) The Sasembata district: defined as comprising Sasembata parish or the three Sasembata local government council wards. This is an area close to the road from Kendata to Boru, and never more than an hour's walking distance away from it.

(c) The wider solidarity group to which Williams and several other earlier authors have referred as the "Waseta tribe" (see map)

(d) The indigenous population of Ilimo camp

(e) The "Orokaiva" people

(f) Papuans and New Guineans other than Orokaiva, without special administrative roles

(g) Papuans and New Guineans with offices in the administration, and the Church

(h) Chinese traders

(i) Persons referred to as "taupa" (white man)

(k) The Americans (a special, and by this time somewhat mythical category)

(l) White men believed to be dead ancestors who have returned

For the purpose of this study, I have avoided systematic reference to social structure and emphasized residence rather than kinship. The Inonda pattern resembles, in general, that of Sivepe, except that the sparseness of the population makes the immediate [629] social environment somewhat simpler. Sivepe has significant relations of one sort or another with dozens of villages; Inonda's social universe hardly comprises more than half a dozen, and small ones at that. On the maps Inonda is shown as part of the Sauaha "tribe," but Crocombe and Hogbin treat Sauaha as simply another clan in the vicinity and it is likely that the larger military grouping of which they formed part were Monckton's dreaded Dobuduru.

121 It is our task to consider changes in the patterns of contact with each of these 11 categories of outsiders (as between

121 January, 1951 and 1967), both in Sivepe and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

628 The concept of a "closely allied" village is a difficult
[621] one: it is not often, in these days of peace, that a village really acts as a corporate unit, so that contacts between villages
[571] tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved
[764] village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Hohorita, with 400 inhabitants, when an old man died at Sombou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepe, Inonda,

628 Kohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepa people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoga. But in Garombi and Binduta, Isoga was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro and Musou, while Ajoro mentioned Inonda and Hobota (see Map VIII).A

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepa would be: Sasembata, Garombi, Avala, Hamburata, Korogombata (i.e., Binduta), Hojana, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepa. Togahou and Isivita are both situated outside the Wasata tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepa village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepa informants had first or second degree consanguines in Kongohambo, and only one Sivepa girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
[582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals.

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will
be traced in detail in a later chapter. The setting up of wards
[794] under the Higaturu Local Government Council led to further occasions
for formal cooperation between villages belonging to the same ward.
[797] It was characteristic of both the church and the government council
organisations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[2] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoga, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. More inter-
village cooperation was a far less significant factor than inter-
578 village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[128] land to "look after." As is usual among Orokaiva, this right to
A [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Isonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepa. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepa and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepa villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepa people in Awala. It seems that the Sivepa people did stay in Awala for three months, after which the Jagase and Timunu clan groups received permission to return to their land in Sivepa. The third Sivepa clan group, Seho, stayed on in Awala, but planted gardens in the Sivepa area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepa. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. How this danger did not come from the other Sivepa clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepa people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Belshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepa, that the Seho of Awala would share their land with the Seho of Sivepa, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Nunumi in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepa and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside
[578] them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring
[579] villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between
[754] such persons nonetheless have a greater fiduciary element than transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepa man, but men from Isoge or Kendata could be found for such a service.

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepo and Isoge or Kendata than with Carombi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepo are now expected to cooperate in both church and [198] local government council activities. This is definitely a somewhat novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

797 When the Sasembata mission station was built in 1952-1953, 794 all the villages contained in the parish collaborated. Miss White's diaries show how this cooperation was organised. Miss White, who 628 was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Carombi and Isoge would finish the hospital ward, Sivepo and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials 628 and in 1966, while I was in the field, the time had come to pull it down and renew it. The Australian teacher in charge of the [759] station was unable to organise this work. There was, however, a Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Carombi, Sivepo, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous villages. I collected the kindreds, up to two degrees removed, of [124] 51 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9 shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; meeting them less than once a year would not be quite right. [794] Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

Section 4: Other Contacts with the Waseta "Tribe"

While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matriline, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Izivita villages and with Togahou. The links with Soropata and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Awala (three miles from Sivepe) also has a special explanation beyond [438] common clanship: Sivepe people were dependent upon Awala clay [323] for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

A [See Cat. 116, p. 214--Analyst]

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are [631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land 423 boundaries with Soroputa and Agenahambo; these boundaries lay North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo [659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, Gorombo, Binduta and Isoge, the delegation that went to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepa where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepa men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagavoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matrilina. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepa and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Tagahou by Sivepa in 1967 was an unprecedented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the
[731] Waseta "tribe" more closely together. This question is complicated by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practices what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of [582] residence. Within this area, marriages are contracted, cannibalistic [721] raids do not occur and fights tend to involve comparatively little [266] bloodshed. The circle of "intra-group morality" varies for every

628 village. Williams, in marking out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X) but "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepa. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[592] closely together than formerly. I obtained from a number of Sivepa
[582] men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hoborita, which is understandable as so many refugees had lost their families during the eruption. In Sivepa I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
628 period, (the atmosphere of an evacuation camp was certainly not
619 a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepa and Soroputa or Agenahambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

657 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs. Williams' tribal map shows Inonda as Sauaha; Crocombe and Hogbin
[114] describe Sauaha, quite correctly, as a clan resident near the settlement of Bobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepa, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepa man married 40 or more years ago, and the visit was from that man's children. Several Sivepa persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garoubi where they
[424] married; the third woman's son came to live in Sivepa. Descendants of the Sivepa man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

When the members of the "Waseta tribe" were accomodated at
[657] Ilimo, they were not only the guests of the government which
[731] supplied food and other comforts, but also of the people of Ilimo
[574] village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

628 guests, it appears that they were friendly but rather formal. As
579 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[659] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new
[162] administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusaia.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepa came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepa; the sanitary inspector appointed by the council, who lived at Garoubi, came even more frequently, while many Sivepa people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Carombi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepa and Carombi, but was non-
[276] committal over the other two, as he saw Isoge and Binduta were insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages.
[191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Motu), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepa one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but was working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

657 Employed rather widely over the last decade or so, they have a
647 responsible job, for which the qualifications include a reasonably
177 high standard of education. In Orokaiva eyes, these men enjoy high
status, as they have permanent, relatively highly paid positions
and above all, because they control one of the most coveted European
resources, namely motor transport. They very often have the power
[1191] to offer transport to Orokaiva travellers; their favours are
eagerly sought; they carefully choose the men for whom they will
stop on the road: kinsmen, residents of closely related villages,
other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for
[875] Papuans. Mission teachers at Isoambata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Isoambata
[777] mission teachers came from the Motu-speaking coastal district. One problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
177 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, [797] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that [757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital [743] and most of the referred cases actually went to Saiho. There was a [758] monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

There were no cases, in Sivepe, of inter-marriage between [582] local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, [232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. [494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

177 The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepa and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245] [474] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepe. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepe village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepe, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepe is most often the village, or a place only a mile or so from the village (the mission station, or Garombi, or Sasembata village), the locale of contact for the Inonda people is
177 795 more often Popondetta. Another difference is that whereas Sivepe,

177 in its attitude to culture contact, is somewhat homogeneous, Inonda
195 is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

177 The changes which have occurred in the pattern of outside
181 contacts in Sivepe between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[199] than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepe.

177 Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white men's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier,
[191] an interpreter is, at the very least, required as intermediary between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepe in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepe the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

177 the people. He was the only white man in the district (omitting
[464] the anthropologists) who actually did this. Finally, some people of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

The only taupa residents in the district were the head
[895] teacher and his wife; they had daily personal contact with village
[439] people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepa men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepa men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

657 Characteristically, contact between the taupa and villagers
177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to
[242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

657 closing up old isolated hamlets and moving the inhabitants to the
177 larger, more modern-looking villages. The patrol officer's speech to the assembled people was intended to encourage increased cash-cropping activity. The patrol officer was young and not very well informed; some of the suggestions he made (e.g., that the people should busy themselves selling produce at the Saiho and Popondetta markets) were based on unrealistic assumptions about the lucrativeness and volume of trade at these markets, and provoked no more than an indulgent smile. As the patrol officers usually are young men of limited experience, the government is wise in depending, in its efforts to arouse enthusiasm for economic development, not on these officers but on the structure of the local government councils. Thus the most crucial European role, from the viewpoint of development, becomes the advisory officer to the council through whom development ideology must flow to the villages. In 1967, the government acknowledged the unusual significance of the work of these advisory officers by setting up a special training course for them with the School of Pacific Administration at Sydney. I did not have the opportunity to see the work of these trained officers, as none had graduated by the time I left.

In all matters the ultimate initiators of contacts were the Europeans who, after all, had set up the institutions for which their roles were required. Some of these institutions depended, however, for their survival on the voluntary support of the Orokaiva. This is true not only for the schools and churches, but also for the courts which depended on information laid by councillors and private aggrieved individuals. Similarly, the agricultural officer depended on people freely coming to him to ask for rubber trees, coffee trees, etc.

In some respects, the pattern of these contacts differs today from what it was in the early period of colonialisation. While a local government councillor reports infractions of council rules to a Native Court voluntarily, this voluntary principle did not exist before the local government and could be punished for not reporting infractions of the law. Rubber and coffee were planted, not voluntarily by individuals but compulsorily, every village having the duty to plant a certain number of trees every year. It was only after the second world war that the government began systematically to seek from the Orokaiva not forced compliance but voluntary cooperation. Even today, it is not always easy to know whether contacts with Europeans are the result of choice or compulsion.

Let us take the case of two Sivepa men whose houses were not up to the standard of the rest of the village. In the end the "committee" forced them to build according to the rules. This man was motivated far more by pride in his village and desire to demonstrate his power than by fear of the government; nonetheless, he could secure compliance only by reporting the cases to the councillor and a threat to lay a complaint with the patrol officer. The ultimate sanction to which he appealed was thus a court conviction and jail sentence (no less!) imposed by Australian authority. There was also the motivation that the patrol

657 177 officer, observing the offending houses, might charge the "committee" with dereliction of duty. This could not be taken lightly as some years earlier, in the days of the village constables, a negligent constable might find himself deposed and even jailed. (How frequently this actually happened I do not know, but the fear was still there.) The situation seems essentially ambiguous: willing cooperation and compulsion are both present.

177 609 As may be expected, contacts between Orokaiva and taupa are perceived totally differently by both parties. The European has two kinds of concept foreign to the Orokaiva, namely the concept of a formal organisation by which long-term fiduciary relationships can be established on an affectively neutral basis; and the concept of welfare objectives pursued by these organisations on the basis of universalistic values. The Orokaiva had no difficulty in trusting a European to fulfill fiduciary obligations if he had a close personal relationship with him, and likewise he would expect such a European to have an interest in his welfare, but as I have shown, such closeness was extremely rare in Sivepe. It was just unthinkable, to the Orokaiva, that an official casually visiting the village was truly interested in their welfare, because the Orokaiva could not see any reason why such an official should have such an interest. Clearly, the official was thought to come in the pursuit of his own, or his organisation's advantage. The patrol officer came to punish people who did not obey the law. I was told by informants that it did not greatly matter what one said to him as long as it stopped him from punishing people. The same was true, in one way or another, for most taupa, except some of those one knew well.

177 All men and women of Sivepe were asked what Europeans they knew or had known; the answers to this question were especially interesting because of the omissions. None of the persons listed in this section as being in contact with Sivepe people were ever mentioned--not even the head teacher and his wife. Anthropologists who had been in the village earlier were mentioned by many men and women, past employers were mentioned if the job was in the employer's home or if both employer and employee lived on the premises (e.g., in a hospital). The other contacts were left unmentioned, not because informants were uncooperative, but because these contacts did not fall within any of their categories of social intercourse. If I had asked specifically: "Has any European ever weighed your vegetables?", predictably some vegetable-weighers would have been listed, assuming that their names were remembered.

The relationships at Ilimo camp form a striking contrast to this general picture. This was obvious at once in the interviews as the name of, for instance, Mr. Kaad, is remembered by everybody, as are also a few other names, though less widely. There was hardly an informant who had been to Ilimo and who did not report, in one context or another, the activities of Mr. Kaad. Never once was he referred to in the accounts as "the taupa" or "the officer." When I interviewed Mr. Kaad in Sydney, he likewise felt that the kind of relationships between

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two 657 medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

[429] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically. [431] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus, having accepted Australian gifts, the Orokaiva were naturally anxious to [423] find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

177 If we analyse the reasons why the Australian government would
659 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
659 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
659 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Koipa, Awala, Wasata, Kongohambo and Humuni. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

829 returned ancestor, but have principles for distinguishing between
769 those who are and those who are not ancestors. A territorial distinction that was suggested to me was that the Northern Hemisphere is generally regarded as inhabited by spirits and ancestors. (It was an educated informant who suggested this.) Some Papuans who went to England for the Queen's coronation could not believe that the buildings, the elevators, etc., had been built by ordinary men. A parcel of clothing, taken from England by a visitor was thought of as a gift from the ancestors.

Israel, Egypt, the Red Sea and other places mentioned in the Bible are especially so regarded. One example of the sacredness ascribed to these places was evident in the reception given to a popular missionary in the Kokoda district who returned to his parish after a visit to the Holy Land. The festivities with which he was received were very much out of the ordinary, and I was told this was because the ancestors had gone to these places.

In accordance with the usual Melanesian pattern, Australia, being the country exercising political and commercial control, was excluded from the vague area to which the ancestors had supposedly gone. On the other hand, New Zealand was not necessarily regarded in the same way as Australia. A young New Zealand geographer who paid a brief visit to Mamuni (in the Sasembata district) and to myself at Sivepa had been showered with gifts and one man had pressed money upon him which he was asked to invest in New Zealand, in which case it was expected to multiply a thousandfold. The young man was prudent enough
123 to decline the offer. I do not quite know how my wife and I were
829 regarded in Sivepa, but there was evidence that the surrounding villages
769 likewise regarded us as returned ancestors; I was once drawn into a discussion with a branch of the Jegase clan group at Kiorota, four hours' walking from Sivepa, where it was known that we were living closely with the Jegase clan group. I was asked point-blank whether I belonged to the Jegase clan; later, the Sivepa people told me what the meaning of this question had been. It would seem that this identification with returned ancestors was due less to our geographical provenance than to the type of relationships we had developed with Orokaiva people; both the geographer and we were living in villages, eating with the people and sharing with them; my wife was gardening; our behaviour was not that of the taupa. To this point I shall return.

177 It must be due to reasoning of this sort that Americans were
829 placed definitely in the category of returned ancestors. I was told
769 they were very different from other taupa (or rather, they were not really taupa at all). The American forces, it will be remembered, fought the Japanese at the Kokoda Trail and drove them out of the Northern District in 1942-1943. Both they, and the Australian troops accompanying them, maintained friendly relations with the Orokaiva who helped them in various ways, supplied them with whatever food they had in return, received very generous gifts. The American soldiers ate with the Orokaiva, which Australian officials hardly ever do, and

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[209] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[178] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

731 retrospective look at the pre-eruption way of life."

Though most of the contemporary evidence tallies with the accounts of Belshaw and Keesing, I should refer to two documents both [784] dating from 1951 which add some subtleties. The first is a short manuscript by Fred Kleekham, agricultural officer, Popondetta, in which he says that "the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings" (of Orokaiva responsible for the murder of missionaries). I tried unsuccessfully to find Orokaiva who still hold this belief. Mr. Kaad had not heard of it and suggested that as Kleekham was mostly working in the coastal region of the Northern District, he may have heard this interpretation of the eruption in that region. In any case, the explanation is worth noting because, once a disaster has been attributed to the anger of a supernatural agency, the causes of that anger are open to many plausible surmises.

797 Father Albert McLaren, while at Ilimo, composed two songs one 533 of which is still widely sung among the Orokaiva and even elsewhere, as it is included in a songbook distributed to primary schools in the Territory of Papua.

1

We were at Sangara
gathered together
With all our brothers
Living together

Chorus: Have mercy on them
Lord, we live in your hand

The mountain was made by Thee
It was not seen by us before;
Lord, when it appeared
We were wounded.

Chorus

O Heavenly Father,
Look on Thy servants
Who are in Paradise
In Thy Glory.

Chorus

When the mountain was shaken
They were watching
With their children
And were buried together

Chorus

797
533

2

In the land of Sangara
Are the bodies of our brothers
As though they were sleeping
But we shall see them again in the end

Our brothers on earth
Had many temptations
They went up to Heaven
In Thy Glory

The evening was bright
On the hills of Ilimo
But our thoughts
Are always with our brothers

731
784 ——— Father Albert described to me his own experiences with the eruption. He lost his own brother who was with the mission, but he was saved because he had been sent to Isivita for the service on the day of the eruption. He was able to escape by running down from Isivita. When he came close to the village of Sinbeki, the darkness closed in. When the light returned, the clouds were red with flame or fire. When people saw this, he said, they thought the end of the world had come and this cloud was the fire of the Last Judgment that had come to burn them. Nobody knew anything about Higaturu being a volcano; or even of the existence of any volcano. They noticed the trees that were blown up, the branches broken down, the little hills of ash covering the valleys and people thought: this is the end of the world.

Father Albert said the Orokaiva did not use to have an idea of the end of the world; it was taught by Christianity. After the disaster, the people discussed it a great deal; through the disaster, God had shown the people just what was meant by the idea of the end of the world. I asked Father Albert whether he regarded the disaster as God's punishment for sins the people had committed, but Father Albert dismissed this idea: he did not think God would punish the innocent along with the guilty. This conversation took place many years after the disaster and can therefore hardly serve to refute the notion that in 1951, the eruption was regarded as divine punishment.

(797) Several government officials charged that the Anglican Bishop actually encouraged people to think that the eruption was a visitation of the wrath of God, as they had not followed the laws of the Church of England. They even add a variety of anecdotes, in which the Bishop threatened that if some demand of his (different in each anecdote) was not met, he would make the mountain erupt again. After meeting Bishop Hand personally, I must confess I am rather sceptical about these stories. The Bishop felt that some Orokaiva believed the eruption was a divine punishment. He stated to me that in his own sermons he

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
[777] especially when they wish to give the impression of being modern and educated. Papuans close to the Mission invariably speak of it as a natural disaster.

A group of elderly people in Sivepa, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added [787] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisire.
[762] A person who is sisire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisire.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
177 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Honckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

731 a warning not to openly disobey the new culture heroes, to deal with
177 them gently and cunningly and avoid making them angry. Thus the
[784] eruption led to greater circumspection if not contrition. It also led to a sense of deeper involvement with the new age. The immediate consequence was a fashion of modern village building in 1951, as both Belshaw and Kaad have reported. After this rather brief demonstration of respect to the deity, life reverted to its previous style for some years, after which there was a further period of innovation, more soundly based on the development of the Sasembata school, the local government council, the increase of economic opportunities, both in the towns and in cash cropping, and finally on nation-wide political development. The Orokaiva of today definitely sees himself as entering upon a new age, and he views this with optimism and some excitement. The eruption undoubtedly was perceived as a potent sign of the coming of this new age and the danger of resisting it. For this reason, it might theoretically be expected that new ideas would be accepted more eagerly in the resettlement areas than in the less affected areas such as Inonda.

177 Unfortunately, I find it hard to evaluate the Inonda data. The
554 Christian, cash-cropping families were as concerned to view themselves as living in a new age as were the people of Sivepa. The views of the other families were hard to obtain. Crocombe and Hogbin pointed out correctly that these families explain their non-participation in the coffee scheme by difficulties in their land title. The two authors also characterised the Pagan families as being of "lower status", pointing out that the "higher status" families are (also in neighbouring villages) the most likely to plant cash crops or likely to plant most, (1963: 85) for reasons of prestige. During my own stay, the Pagan families set themselves against participation in the women's club, as they felt it violated traditional custom. I had the impression that there was a status conflict between the factions, as participation in the church, the women's club or any other European activity would have put the resistant faction in a clear position of inferiority, and increased the power of the leader of the other faction who ran all these activities.

Section 11: Acculturation

177 The contacts and the ideological changes sketched in the previous sections have not led to a basic transformation of the culture. Williams' classical account of the Orokaiva, based on fieldwork conducted in 1923, still corresponds in fundamentals to what can be seen today. In the present section, I shall draw attention to some aspects of the culture that have changed since the eruption, but it should be stressed that, in field observation, they are seen as embedded in a largely traditional culture, with a social organisation, economy,

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive
[411] diet that has undergone recent changes: trade salt is almost universally used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

177 Housing and village improvement: The changes in this aspect of culture are capable of fairly precise description, which has been provided in Table 10.[A] This table applies to Sivepe only; I shall refer to some minor differences between Sivepe and Inonda at the end of this section. 335 The changes may be analysed into several main types. First, there is the extent to which European materials and tools are used. Here, we note 412 that nails were a building material as early as 1951 (and therefore 177 also hammers), but a significant change has been the extent of their use. The introduction of nails was partly a time-saving device, as framing can be efficiently lashed together with the bark fibres traditionally used. On the other hand, the "timber" walls might not be easy to lash together and nails are probably necessary here. On the other hand, the blackpalm or betelnut which is used for the floors does not take nails at all well and the lashing is a superior technique, 177 used in almost all the houses. Secondly, there have been changes in 342 house design, and the use of materials. The increase in house size, which was the most striking of the innovations, was general throughout the village, according to a standard set by the leader and adhered to by everybody. The change from betelnut to blackpalm flooring is towards a superior, toughter material, harder to work and comparatively rare in the Sasembata district. The change from sago to "timber" walls was purely a matter of aesthetic fashion. I was told by Mr. Sebire that it started in the early 1950's in the Kokoda district; in Sasembata district it does not seem to have started until around 1965. The new houses at the mission station had "timber" walls; so had the new houses in several other nearby villages. Sivepe, being built on a new site after the fashion started was wholly built in "timber" (except for a few houses shifted from the old site and standing on the new one and gradually replaced). The "timber" looks like weatherboard, [335] which has been used on Australian houses in the Kokoda district. It is cut from logs sawed to a length of six feet, which are then split into shingles with a bushknife, a procedure which takes much time and skill. The six feet long shingles are generally 3/8 inch thick and five inches wide. The intention is to overlap them, providing better protection against wind and rain than the sago walls have. The work of cutting the shingles is so arduous, however, that the overlap is usually quite small when the houses are built; as the logs are split green, the timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European [342] authorities. (The timber walls, according to administration officers, were a purely Orokaiva idea.) For reasons of hygiene, the administration wanted the houses to have windows, which traditionally they did not have. The new houses have large windows, but they are all blocked up with boards (to keep the wind and rain out) so that they are not functional, [364] except in warding off criticism from Australian officials. The village improvement measures: elimination of pigs, lavatories, rubbish holes, [351] pens for chickens; are all based on European advocacy. The neat lines of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepa has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such
177 enterprises in the role of expert. There was one such man in Sasembata
335 village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of

[212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking

[192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number" for a variety of quantitative concepts, including price. Finally, one
177 must regard as an aspect of acculturation, the introduction of many
829

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
a sense of closeness to newly independent non-white states. But the
[203] information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepa men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepa men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
the subsistence sphere. Money was essential for payment of taxes
511 and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
454 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepa men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

461 be acquired without too much hard labour or threat to status, and only
[436 if its acquisition does not involve foregoing other more highly valued
[437 benefits. Thus, the market has a great elasticity of supply: when
[435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practices for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern
583 faction was, in fact more money-oriented than were the Sivepe people.

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepe people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepe people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepe to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepe
621 and Inonda are of different population size, Sivepe having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that [614] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timumu and modern Sivepe still contains roughly the same family alignment except that the members of the Timumu clan are now calling themselves

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garoubi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, [554] dancing expert and some others. One of these experts, the feasting [622] expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility [614] for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari embo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepe; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
614 which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies
[364] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories.
[754] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I
[627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the
731 village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

625 731 excursions. This was, however, an experience of short duration and, once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] [571] With regard to interpersonal relations, the evacuation set up a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 571 The Orokaiva are not often observed to work in groups; from the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to [342] [177] describe this pattern as Individualistic. After all, every house was in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 654 571 Unwittingly, the Australian government has tended to make the Orokaiva more oriented towards group work than he was before. Road work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers' consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wreeta and each man took his own rice back home, giving a

474 share to the owner of the land. This activity started some time after
177 1947 and ceased with the eruption of Mount Lamington. It involved
241 "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attached by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 The pattern of production of the Sivepe rice resembles that
241 of the communal yam gardens. There also, several men may plant
[427] together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of
[829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 Today, Sivepe has three forms of economic organisation. The
[546] dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

471 well as cash crops. The clan or village has overriding rights to the
product only when a feast is being held; at such a time, people are
encouraged to make extra plantings and are expected to donate what
has been grown in excess to their own requirements. Such donations
are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the
241 Australian government's insistence on the planting of village quota's
621 of rubber and coconut. Here, as I explained, an undivided area was
planted by "all" members of the community, and the product appropriated
by individuals on a sort of roster system. The land remains owned
by the individual who made it available and it will revert to him
when the trees die off. It is only the trees that are "communally"
owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called
427 tane. This is common procedure also when subsistence crops are planted.
Each tane is then lent to a person who will plant coffee or rubber
there. This lending of tane is likewise traditional; a man described
how his sister, after a quarrel, came back to Sivepa (she had married
out) and he at once gave her a tane from his new garden to look after.
The only difference, in the case of tree crops, is that the tane
is lent out for a longer period, in fact as long as the borrower
continues to harvest the trees (regularly). No new "communal" coffee
plots of this sort have been established in Sivepa for many years;
there was, however, such a plot allocated to rubber around 1964, as
I have described. It was called a "company" and the agricultural
officer told me that the government did not like supporting these
"companies," preferring development of "individual holdings."

474 In the neighbouring village of Sasembata, where a rubber cooper-
245 ative was set up, a new variant developed in 1967. This was also called
a "company;" its main asset was a small factory for processing the
rubber. The "company" was also allocated a plot of land, owned by
a village man, where trees were planted by a work group, with the
intention of tapping and selling the rubber for the benefit of the
company--there was some talk of saving up for a truck to cart the
rubber and other village products. In addition, villagers planted
trees on their individual land and rubber harvested from that land
would be processed at the factory and proceeds would go to the grower.
This scheme met with some sturdy opposition from the agricultural
officer. The fear of the administration was always: cargo cults,
communism, fraudulent accounting. Four Sivepa men were actively
occupied for some weeks on helping to build the rubber factory. They
also contributed $10 membership fee. Members were drawn from all
villages closely related to Sasembata.

474 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such
venture, involving 11 villages and centred on the Sasembata mission
station. The savings seem to have totalled $60 from each of 12 clans,

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuni clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Bubi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepe, as well as Hoborita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepe, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garombi, a neighbour-village to Sivepe. Here traditional and modern authority were vested in different persons, whereas in Sivepe both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepe and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepe were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepe; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepe was wholly Christian. The most senior man in

this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hoborita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early converts belong to the Jegase clan. Plant emblem groups (or lineages) 794 are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepe, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the lands of the transport driver and one-time councillor, who played the role of lay-184 preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepe were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepe by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepe.

CHAPTER IV: Contacts with Congeners

Section 1: Kind and Frequency of Contact

731 628 Because of the circumstances of relocation of the Orokaiva, one cannot generally study relationships between persons who were resettled and persons who stayed in their old locations; the old locations were in general restricted areas which remained uninhabited. For a short period, the population of Sivepe was split into one half resettled on their old lands and one half resettled at Awala. If Awala had offered a viable alternative to residence at Sivepe, an interesting interrelation between the two groups might have developed. As it was, the Seho people who stayed with their clansmen at Awala, established gardens at Sivepe and soon preferred to return. Likewise the Sewa people who escaped to Inonda chose the return to their own lands, even though there was no shortage of land at Inonda. While the Seho clan group stayed at Awala, they made frequent visits to Sivepe, but their children went to school at Awala. Once Old Sivepe was built and gardens were established, the Sivepe people made a large feast for Awala, to express gratitude for the hospitality received. (1954)

Section 2: Encouragement of Contacts

731 634 From the first week of evacuation, both government officers and village constables and other community leaders were well aware of the homesickness of the people and their desire to return as often as possible to the villages they had left behind. The camp authorities at Ilimo were only too well aware of the profound shock and despondency of the people and were ready to allow brief expeditions to home villages as long as this could be done without creating fresh conflicts. Hence a policy was developed of permitting return for short visits under supervision of village constables and involving only a limited number of people. Men only were allowed to go home, as the authorities were afraid (not without reason) that if families went back to the villages it would be hard to get them to return to camp out of the restricted areas. In case of further eruptions, the administration of the camps would naturally be blamed. It seems very likely that the initiative for the organizing of these expeditions came from the community leaders. Village constables would request permission from Mr. Kaad, mostly because people put pressure on the village constables.

654 731 After resettlement in Awala and other villages, the government made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 823 [852] [794] In earlier chapters, I have already drawn attention to the widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 177 [438] [628] Naturally, in the circumstances, people did not feel any pride or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepa was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Carombi which still had its pigs. During the bargaining, a Carombi man taunted Sivepa about its lack of this kind of treasure. The Sivepa people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepa's status in relation to other villages. If Sivepa had not felt secure in its ideology of the "new way," there would have been dismay at Carombi's taunt about the lack of pigs. But nobody in Sivepa doubted the rightness of the choice that had been made.

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Hargaret's Hospital, Eroro (Table 11).[A] The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, gastro-enteritis, influenza, scabies and other skin diseases are also [146] extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including one in Sivepe during the time of my stay. People are extremely anxious [753] about disease, even mild attacks of influenza or of malarial fever. [754] The cause was always thought to be sorcery.

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation
731 camps, except for infections due to bad water supply at Cape Killerton camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned
731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

[A] [See Cat. 116, p. 216--Analyst]

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
[821] this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

CHAPTER VI: Government Welfare Efforts

Section 1: Relocation Plans and Their Implementation

657 After the second world war, the Australian government became strongly oriented towards economic development of the indigenous population in its Territories. While before the war, the policy emphasis was perhaps more on the maintenance of law and order and the development of expatriate industry, it is after 1946 that we begin to find the active encouragement on a wide scale of co-operative societies, agricultural extension projects, marketing projects, rural progress societies, and later Native Local Government Councils, as well as other political and economic programmes. Even after 1946, progress was slow and in a recent survey, R. S. Parker suggested that "relative inattention to economic development up to 1960 have left a great leeway to be caught up under insistent pressures of time and external change." (1966: 189)

In 1951, shortly after the first eruption of Mount Lamington, the Hon. Paul Hasluck became Minister for Territories in the Australian Cabinet, and Sir Donald Cleland became Administrator of the Territories. One of the chief concerns of the new administration was to increase the scale, the level of technical competence and the concentration of effort in the departments concerned with indigenous development. (Parker. ibid. 195) The relocation policy in the Northern District is more easily understood if it is remembered that in 1951 a new central administration was eager to make rapid strides in economic and social development while the staff establishment and the "basic craftsmanship of the service" (Hasluck quoted in Parker, 1966) was not yet adjusted to these new objectives.

In considering Australian relocation policy, we must therefore keep in mind that there was a disparity between the more sanguine development objectives and the available resources. Furthermore, there was no real consensus in the administration on the scope that [129] should be given to the development objectives. When I interviewed persons concerned with the events of 1951, everyone told me that the establishment of the camps and the resettlement villages was principally a rescue operation, and that wider development objectives were only [731] incidental. On the other hand, it was possible, from published statements by Belshaw, 1951; Keesing, 1953; Plant n.d.; and interviews with Bishop Hand, Mr. P. Kaad and others, to piece together a quite different attitude to the disaster that must have been current in 1951 among high-level development-minded officials. According to this approach, the disaster offered a unique opportunity to try out some

657 731 ideas concerning socio-economic development. It looked in early 1951 as though the evacuees would not be able to go back to their homes for a long time. The vulcanologist had recommended a large restricted area (see Map II)[A] and was doubtful when (if ever) it would be safe again for human habitation. It looked as though thousands would have to be resettled in altogether new surroundings. Such resettlement could only occur under strict government supervision; in these villages it looked as though the government might have the opportunity to introduce a new way of life: model village layouts, cash cropping, improved land tenure, better education, health services, everything in fact that developers still aim at today, except that no plans existed for the setting up of new political institutions.

[177] To what extent were the evacuees involved in plans of this kind? Mr. Kaad often spoke to the evacuees of Ilimo about his ideas concerning development. Belshaw's evidence shows that a number of Orokaiva to whom he talked were eager to embrace a new way of life and, especially, that they were anxious to get better educational facilities. He also detects a strong motive for the Orokaiva to agree to any propositions Mr. Kaad put to them: they hoped that thus they would be allowed to leave the evacuation camp earlier than if they argued back (1951: 246). Mr. Kaad himself expressed to me the view that the evacuation camps were too stressful an environment to be propitious for the teaching of development ideas.

During the time when large-scale development was envisaged, at least three persons of authority and scholarly qualifications were asked the Territory administration for their opinions. Belshaw (1951) advocated a general broadly-based socio-economic development programme, in line with modern theory of applied anthropology, but far beyond the resources and administrative skills of the Territory at that time. Keesing (1953) recognised that the resettlement had been "remarkably effective" as a means of reducing "cultural trauma" caused by the eruption. He further commented: "Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions." Plant, an anthropologically trained administration officer, studied some of the practical consequences a wholesale resettlement policy would have. He worked out an elaborate scheme whereby groups would be resettled in villages where there were local groups with the same clan name--a procedure which the thought would be in line with traditional social organisation--but he also showed that resettlement outside the restricted area, as defined in early 1951, would probably lead to land shortages.

Shortly after these three studies were made, an unexpected event changed the situation. The vulcanologist found that the active, paroxysmal stage of volcanic activity of Mount Lamington had ceased after less than two months and hence, a large part of the restricted area could be resettled long before he had earlier been led to expect.

A [See Cat. 116, pp. End Map 2(A)-End Map 2(B)--Analyst]

657 731 In March, 1953, he was able to reduce the restricted area still further, to a circle of two miles' radius around the crater. Thus, all areas that had ever been used for the growing of taro and for village sites, became available to the Orokaiva once more. In these circumstances, it was inevitable that the fertile slopes of Mount Lamington were again occupied in much the same way as before the eruption.

As the first chapter of this report deals adequately with the planning and establishment of the evacuation camps themselves, I shall confine myself in this section to resettlement after the period in the camps. The number of places in which groups were settled between the day of the eruption and the present varies somewhat. The Sivepe people all went to Wairopi for a few weeks, then to Ilimo until end May, 1951, then to Awala, where some stayed briefly, others for a year. Since then the present families all stayed at Sivepe. On the other hand, the present population of Hohorita went to Cape Killerton (one week), Oro Bay (about ten weeks), Popondetta (a short period), Irihambo (almost five years), until they were able to reach their present site. The resettlement history of other villages close to the mountain, such as Kiorota and Bagevaturu was about equally long.

We may generally distinguish two phases of resettlement, following the evacuation camp period. The first phase, occurring around May, 1951, was the transfer of groups from the camps to a number of chosen "resettlement" villages, mostly along the main road from Waseta to Popondetta, but also on sideroads, e.g., Sairope and Kongohambo. This is the phase when an attempt was made to set up model villages of largish size under close government supervision, following discussions at Ilimo when the people concerned had agreed to live together, and to make the innovations. It was no doubt the intention of Mr. Kaad to continue in these villages the educational effort started at Ilimo camp, and this will be discussed in subsequent sections.

The basic problem, however, was to ensure satisfactory garden lands for the resettled groups. The weakness of the locations chosen by the government was that they were mostly placed along one main road and thus within walking distance of only part of the available garden land. As Plant and Keesing foresaw, it was inevitable that the settlements would split up so as to bring people closer to their garden land. It is mainly for this reason that the Sivepe people did not stay at Awala. Furthermore, the resettlement was based on an analysis by Plant according to which a local clan group could be resettled in any village where there was a group with the same clan name. I shall give only one example of this sort of analysis, to show its effect. There are Jegase clan groups in Sivepe, Binduta, Sui (near Awala) and Isivita. Plant therefore suggested that in the resettlement of Isivita, the Jegase clan group could be shifted to Kongohambo and be given the use of land at Sivepe, Binduta or Sui. Some Isivita evacuees therefore [423] went to Kongohambo while others went to Koipa. The Jegase of Isivita were thus made to join groups which were themselves already fairly short of land and, in the case of the Jegase of Sivepe, dependent on

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
423 each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Numuni, situated between Sasembata and Wasseta, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Numuni, which was intended [425] as one of the new style resettlement villages. They were given some [245] land to cultivate and stayed for several years. When the government began to encourage the planting of coffee trees, the Dapari immigrants [426] planted coffee gardens at Numuni. Under Orokaiva law, it is permissible to plant trees on borrowed land provided the owner consents and the [422] produce from that tree will then always belong to the planter, even when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

657 It is a ticklish question whether this rule similarly applies
731 to coffee trees which differ from the traditional kind of trees in
423 two ways: first, in that they occupy the whole of a piece of land and
245 not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 After planting their coffee at Mumuni, the Dapari people began
731 to depend for their subsistence gardens on land they owned in their
423 own natal district, which was an hour or so from Mumuni. All the
578 Dapari people, except for the Jegase clan group of Dapari, went back
628 to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.

The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
[578 group has solid land rights close to the village. Thus, the resettle-
628] ment of a group of Garombi people in Sivepe in 1966 may well be stable
because these people own land within a one-mile radius from Sivepe.
But the resettlement of Dapari people in Mumuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Mumuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepe people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Mumuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to
agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
657 of their own. This process started almost at once and continued for
more than five years. I have already stated that in Sivepe this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepe, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,869, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepe could give only limited
help in the way of lending gardening lands and marauding pigs were

another source of annoyance. Some village groups requested permission to move from Koipa and this was granted. A report on the file refers to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bagevaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict then it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

This second phase of resettlement became possible because the first phase was not accompanied by any renunciation of land rights, or foreclosure of the possibility of return. At no time did the resettled groups give to anyone else a permission to occupy vacated lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dupari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dupari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepe, most men have some land of which they are indisputably the owners, but at the same time most of them also have useholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepe showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

657 731 423 245 planted coffee on his mother's brother's land. He explained to me that this mother's brother was dead and nobody except himself had any claims on the land. The second man, who had planted on his wife's land, was not so fortunate. His wife's relatives live in Sivepe and lost no time asking for the return of "their" land as soon as the coffee was harvestable. He settled for a compromise: he planted coffee on some of his other land and promised his affines they could have their land back as soon as his new trees began to bear. As far as I could discover, this was agreed to.

423 It has been argued by several students, especially Crocombe and Hogbin, that title improvement is a necessary requirement for the success of cash cropping in the Northern District. My own findings suggest that the importance of title improvement varies a good deal between villages. Where, as in Sivepe, a fair amount of land is held under an undisputed title, no great gain in productivity can be expected from the formal registration of these good titles. In other places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Humuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Humuni is stealing their coffee, could any judicial officer convict any person from Humuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

657 423 The government made a fresh approach to the problems of indigenous land tenure with the passing of the Land Titles Commission Ordinance 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments. Under these provisions a Land Titles Commissioner has been appointed at Popondetta whose task it is to determine the land titles in specifically designated "adjudication areas." The Commission prepares an adjudication record showing what land in the adjudication area is native land and the ownership of each piece of that land. A native may then apply for registration in his name of any native land included in the record by agreement, but no titles can be registered in a piece of land which is less in either area of frontage than the standard prescribed for the purpose for which the land is likely to be used. In practice, this has meant that every individual holding registered by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hohorita in 1966. Hohorita is a resettlement village harbouring some 12 clans;

it has a substantial area of land but holdings are very fragmented. As this village is very interested in growing coffee, its leader suggested in 1962 that all Hohorita land should be consolidated and partitioned among the owners and titles registered. (Crocombe and Hogbin, 1963: 93) When I visited the community in 1966, an officer of the Land Titles Commission was busy measuring the ring boundaries. He found that the Hohorita people owned a total of 2,240 acres of land, enough for 112 unit holdings. I was impressed with the ease with which the people could be induced to accept the scheme in spite of its far-reaching repercussions. If the scheme was accepted, all boundaries would be redefined by the commission; people would often need to exchange their ancestral blocks with others in accordance with the map prepared by the commission. Moreover, the usual pattern of shifting cultivation would need to be carried on within the boundaries of the single 20-acre block which, in addition, would need to accommodate cash crops. The fluidity of traditional land transactions, the opportunity to revive old claims and residual and reversionary rights would be past, as the registration abolished them all, including the rights to planted trees. All this was explained but did not deter the people.

The scheme was killed in spite of its popular support, because it was soon bruited abroad that Hohorita was to be cut up. I witnessed myself that letters were written to men who had been living away from Hohorita for years and were never likely to return. These letters, written by relatives, warned the men to come to Hohorita to assert their rights. It had initially seemed that 112 holdings was quite adequate, in fact ample, for Hohorita's population, but as all the absentees came swarming to the Commission, a total of 126 men had been able to assert their rights successfully. In none of the Ordinances was residence specified as a necessary qualification for participation in a consolidation scheme; hence the Hohorita scheme had to be dropped and hopes dimmed that major schemes could ever be completed on a significant scale.

In 1967, a remedy to this problem was devised. According to this scheme, each ward of the Higaturu Local Government Council district was formed into an "adjudication area." The people were asked to determine the boundaries of their wards; as I have already described, the lower Sasembata ward did so with alacrity. The effect of this operation was that no person resident outside the ward would henceforth have rights to land inside it. Residence could easily be determined from the village census lists. These lists did not wholly represent actual residence, but a non-resident would be obliged to be present at every village census until he transferred himself to another village list. The main point was that every person can be on only one census list and thus have land rights in only one ward. The establishment of the boundaries would probably daunt any surveyor as numerous men have rights in the land of other wards, but I found that the work was swiftly done by the Orokaiva by the expedient of effecting some exchanges along the boundary line so that, for instance, Soroputa and Kongohambo

retained as much land as they had before, after the boundary was cut. They had received some Sivepe land and they had lost an approximately equal amount of their own.

Thus, the lower Saembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect, of being misled by its own ideological bias. The enthusiasm people felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

731 242 The opportunity offered by the evacuation camps was also taken to introduce a few innovations which, it was thought, would improve subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepe or Inonda. I myself had brought a spade for the garden I established in Sivepe, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [229] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

731 134 Keesing reports there were fears in the camp that the eruption would have destroyed taro seed stock, but this fear proved unfounded. The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

731 657 Issue of Food: In the camps, rice, tinned meat, tobacco were distributed according to a ration scheme based on the census figures. Each village constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

731 the resettlement villages as needed, but soon replaced by issues of
657 the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

452 Although there is provision in the Territory for credit assistance
657 for economic development, small growers of cash crops such as are found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

245 The government provides marketing assistance to New Guinea
652 growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself
245 purchase coffee but when the Higaturu Local Government Council was
474 formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later
[691] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is
[439] constantly rising until in 1966 it reached $20. Some non-members sold their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

654 The government also assists agriculture through its research
242 activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

654 and local field trials are being carried out on the volcanic soils
242 of the Northern District.

Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve
[874] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu
657 Council to deal with. I have already mentioned that government officers
423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.)[A] Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

653 a council responsibility. While the rebuilding of the arterial road
[491] from Popondetta and Kokoda was an expensive (and seemingly interminable) responsibility of the government, the side roads became the council's responsibility. Similarly, the government built the major hospitals while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of $8 for men and $1 for women. This is the only personal tax directly
[689] levied among Orokaiva villages people and has replaced the government head tax. Its collection was not a government but a council responsibility, although defaulters could, of course, be brought before a magistrate and sentenced to a term in a government jail. Councillors explained to the villagers that the taxes they paid went to pay for their roads, aid posts, water supplies, etc. The government hoped that villagers would be more ready to pay their taxes if they could see tangible local benefits to justify them. One effect of the system was that villagers became very interested to see that as much as possible of the tax money should be spent in their own locality. They rapidly developed a strong propensity for parish-pump politics. When I visited Sasembata district first, there was little evidence of any council projects in the Sasembata wards. People objected to paying
[669] their taxes: they were not getting anything for them. Pressure resulted in roading improvements and plans for a comprehensive water supply for the area. Councillors who did not fight successfully for such causes were liable to miss re-election.

The head tax manifestly acted as a significant economic incentive.
[961] A man who grew no coffee and earned no money could not pay his tax. Even if a man could not be bothered harvesting all his coffee, he would certainly harvest enough to pay his tax. Some men who had no coffee took plantation jobs a month or two before the tax was due. I noticed this in two cases at Inonda; most of the Sivepa men had coffee
[687] gardens and did not need to work outside. For the first time, tax defaulters in 1966 were actually jailed for two months. In one village, Kandata, there were as many as 50 defaulters who fought the police and ran into the bush; in Sivepa there were four, all without coffee gardens.

In spite of this tension, people generally supported the ideology
177 of the council: they wanted the "new age" and they wanted the kind
623 of services that were supplied by the council. At the same time it was never forgotten that behind the tax-gathering councillors stood the government police, armed and ready to make arrests if the councillors were resisted or attached, as sometimes happened. Those who did not pay and tried to escape arrests were judged by the conformists to be ignorant men, unwisely looking for trouble. On the other hand, people deeply sympathised with them. People wanted the "new age," but they did not like the element of compulsion that went with it. They re-elected the councillors who compelled them because they held the Australian authorities, not the councillors, to be directly responsible.

Section 5: Social Services: Health Assistance

657 Social services were provided partly by the government, partly by the council and partly by the mission. The services provided by the different organisations were so tightly interlinked and so systematically complemented one another that it will be convenient to present, in the present chapter, the overall system that was operating. This system was a product of government planning, while council and mission made specific contributions in their special areas of competence. In the next chapter, I shall look at these services again, from the viewpoint of general mission objectives.

657 In this interlocking of services, it was the government which 743 met the bulk of the expenditure, as Table 13 clearly shows. On the other hand, over Papua as a whole 60% of the hospitals were conducted by the missions and over one quarter of the aid posts. In the year 1964-1965, in the Northern District, the three administration hospitals had 3,671 admissions and 13,176 out-patients while the corresponding number for mission institutions was 3,286 admissions, 255,460 out-patients. It is therefore clear that the mission contribution to health services in the Territory is, in terms of patients treated, far greater than its budgetary contribution (2% of total expenditure on public health) would suggest. This disproportion is only slightly lessened if we consider the value of grants-in-aid and drugs supplied by the government to mission hospitals. Clearly, it costs a great deal less to treat a patient in a mission than in a government hospital.

743 The Saiho Hospital, which served all Orokaiva territory, was a sprawling settlement of a great many buildings, almost all made of native materials. Only one building, as far as I remember, was in [344] Australian style, with weatherboard walls; this contained the doctor's office, some other administrative offices, and was used for the few non-Papuan out-patients who occasionally called. The wards were all built of bush materials. Although the statistics show 2,500 admissions and 5,000 out-patients per year, there was only one physician at the hospital who at the same time functioned as superintendent and had a heavy administrative burden. He had a small expatriate administrative staff, and a few expatriate nurses. In the beginning of 1967, a second physician, a Papuan woman, joined the staff. The superintendent was also in charge of the training of aid post orderlies. Increasingly, Papuan nurses, trained in a three-year course at Port Moresby, are being used. A substantial number of hospital orderlies are employed.

758 It is not the policy of the hospital to offer ambulance services, 743 so that the village people are expected to make stretchers out of bush materials and carry in their sick. In practise, hospital and administration vehicles will frequently carry sick people to hospital and I have never actually seen the stretchers made. People would certainly know how to do it. Upon arrival, the sick person is interviewed by a hospital orderly; usually he is accompanied by a number of

A [See Cat. 116, p. 218--Analyst]

758 relatives who answer questions if he is too sick. The orderly speaks
743 the Orokaiva language; the interview gives most of the information an examining physician would require, so that the language barrier between the patient and the Australian physician poses no essential problem. Orderlies can, in any case, act as interpreters. This interview is conducted without much delay and the physician is usually able to see patients fairly promptly. The relatives meanwhile stay around to hear the news; sometimes they leave the patient and go back to their village, but often they stay around the hospital as long as the patient is there.

The hospital does not normally supply patients' food. This simplifies the operation; the patients' diet will in any case consist almost solely of taro. There is usually a relative around Saiho who will cook and take food to a patient. While this may seem an unduly casual procedure, it is valuable in relieving the tension of the patient as well as the relatives. If the complaint diagnosed by the physician requires major surgery or the attention of a specialist, the patient is flown to Port Moresby at government expense. I have seen this done several times and always rather promptly. The Port Moresby hospital is a modern well-equipped institution. Admission to hospital is free to Papuans.

A minor racial upset resulted from the circumstance that the medical officer in charge of the Northern District was a Papuan whereas the superintendent of the hospital was an Australian. It arose because the expatriates, objecting to being treated by a Papuan physician, insisted upon being attended by the superintendent. The latter, placing professional esprit de corps above expatriate solidarity, would not allow the medical officer to be bypassed much to the chagrin of the planters (the public servants and missionaries did not seem to be too troubled). In an earlier chapter, I have commented on the unusually good relations between the superintendent and the Papuans.

Though Sivepa depended on the Saiho hospital for serious illness, minor accidents, malaria, dysentery, various other stomach ailments, skin troubles, etc. were treated at the small mission hospital in Sasembata. This hospital was lucky to have a competent assistant medical officer in charge in 1966. In earlier days, just after the eruption, the hospital was conducted by an Australian nurse and it was only since 1965 that Papuan assistant medical officers began to graduate and to be available for work in places such as Sasembata. I have already mentioned that the people were genuinely pleased at the improvement in service and expressed their pleasure by building a new hospital. This was constructed out of bush materials, contained about 12 beds also made of bush materials, and was equipped with a small selection of basic drugs supplied by Saiho hospital.

Whereas Saiho hospital was conducted by the government, Sasembata hospital was a mission responsibility. The Sasembata staff was paid at mission rates, far lower than the government rates. For instance, the assistant medical officer received $11 per month, whereas the

756 743 government scale in 1965 was $1000-$1800, per annum. The orderlies assisting the AHO received $1 per month. This did not necessarily mean that the AHO lacked the qualifications to get a government job; he could easily have obtained one.

Every day some dozens of people would present themselves with minor and sometimes major ailments. They would be bandaged, given a pill or some other simple treatment. Very sick cases were referred to the hospital; most days, a car would come to the mission station and the AHO could get transport for his patients. The beds were occupied for the more serious cases who could not well go home but who did not need the more specialised treatment of Saiho. The nursing aid never stayed in the hospital overnight but one or two relatives of the patient usually did; if the patient's condition deteriorated, the AHO could always be called over as he lived on the mission station. (See Map XI.)[A]

743 [394] Inonda was served by one of the medical aid posts which are being built all over the district. This was at Hohota, next to the mission school. Such aid posts are built of milled timber and paid for by the Higaturu Council; the government may subsidise these posts. The salary of the aid post orderlies, who work on a part time basis, is paid by the Council also, but in 1966, the government paid a 50% subsidy on these. Most of the large resettlement villages (Hohorita, Koipa, Kiorota, etc.) had them, or were getting them, three posts being added in the year 1966. The smaller villages had to share aid posts; thus, there were no plans to build one at Inonda, and people were expected to walk the three miles to Hohota for treatment.

758 743 The standard of aid was not always as high at these posts as it was in Sasembata. Hohorita had much trouble replacing an orderly who had left. Inonda found it difficult to get service; on one occasion when we went to the aid post, we heard, upon arrival that the orderly had just gone to town for the day. On another occasion, he was in his house; he had been hunting, was tired and would not see anybody. This would have been a rare occurrence indeed at Sasembata. The orderlies regarded themselves as part-time employees who chose their own working hours. This would have been reasonable (for average cases) were it not for the distance between Inonda and Hohota. How often will a man walk six miles to collect a single malaria pill? A more serious problem is that the orderlies are not nearly as well trained as the AHO; hence, they can hardly be expected to carry out diagnosis.

755 People were greatly taken with the medical services available; they were not a replacement but an addition to traditional magical practises. When my interpreter was sick he was very pleased to swallow the pills I gave him, but his house was full nonetheless with numerous herbs collected for his complaint and these were being boiled in a pot or otherwise ingested simultaneously with my medicine. The Orokaiva view is that medicine, given for the purpose of curing, will be effective if it is stronger than the sorcerer causing the illness. It has been noticed that this is sometimes the case with Western

A [See Cat. 116, p. End Map 10--Analyst]

755 medicine, though by no means always. Bandages were especially popular;
they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants
to be helpful would be treated thus, and it has of course been noticed
554 that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a
public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
[146] at Ilimo, by means of distribution of sample tubers and seeds and the
teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepe, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepe was the health
inspector employed by the Higaturu Coincil. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Garombi and he had many relatives
in Sivepe, he made frequent visits. Sivepe caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a lavatory and the place was kept clean in the prescribed way. On

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

[953] The health authorities had successfully campaigned against the Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to mash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

871 until the end of Standard 4, but that schooling beyond that level
is taken by a far smaller number. A great many mission schools teach
877 only up to Standard 4, so that those who wish to proceed further have
to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

872 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Mohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard 2 will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

87] According to the Papua Report, "The core of the curriculum is training in the basic skills of communication and mathematics." (1966: 100) Of these two subject areas, mathematics is taught by a syllabus which will probably be widely applauded by educationalists. Australia has for some years made important research contributions to mathematical education. One of the most outstanding of Australian educators, Dr. Z. P. Dienes, was invited in 1964 to prepare a mathematics syllabus for Territory schools, introducing the "new mathematics approach." In 1966, this syllabus became officially accepted and the basis of the government examinations. Short courses for practising teachers were held, in the Northern District, during the summer holidays of 1966-67. [895] The Australian mission teacher in charge of Sasembata school also went and came back with a tale which will not surprise connoisseurs of the "new mathematics": he found that the Papuan teachers grasped the principles more quickly than those, like himself, who had been well educated in "traditional" mathematics.

87] 191] In the language field, the Australians have taken the fateful decision to make English the language of instruction in schools and the "universal language in the Territory." This is not the place to discuss this strange decision to which S. A. Wurm has recently devoted a clear and authoritative critique which seems to me unanswerable. (1966: 135-148) The key sentence of this critique is that the English language "constitutes a reference system to a culture whose very essence is completely alient to the natives, and it abounds in concepts they cannot even begin to understand on first being confronted by them." The textbooks used in the primary school attempt to overcome this difficulty by an emphasis on formal English, using the structural method, and devoting much attention to the memorising and to some extent the manipulation and transformation of pattern sentences. There is heavy reliance on memory work and very much less reliance on conversational English and creative expression. The teachers explained to me that this bias was inevitable in view of examination pressures. It was amazing, nonetheless, to hear Standard 6 students learning very simple pattern sentences by rote by the whole class saying 20 times or more in unison: "We are going to Paris" (wherever that is). I am not critical at all of the teachers at the Sasembata school, who achieved an impressively high percentage of passes (far above the average) in the government examinations. It is not difficult to understand, however, that these students could not communicate anything very useful in English to, for instance, myself and my wife. The system is, of necessity, a great waste of the children's intelligence. The small minority who later go to Port Moresby or enter European employment will find their knowledge of English useful but the great majority, who need to be equipped for a life in Sivepa and surrounding villages, do not benefit so much from the content of their lessons as from literacy (in their own vernacular), from their experience of the school situation, its relationships and values, and many incidental observations of white customs and attitudes which are most influential acculturative

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was a joke for days. I would therefore agree with Wurm that a language
121 such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Bohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

spite of this vast differential, the mission continues to recruit certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a grant-in-aid to the mission in respect of all mission teachers who held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools. Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

In 1967, the government brought in an education tax which was expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Ssembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

652 expected to levy. He wrote his Bishop that he would not collect the
871 tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

871 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a
[431] major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's education differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle
[558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could
[829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have
[191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
that must be carefully distinguished: attitudes to individual government
servants, to the power structure and to the values represented by the
563 government. As for attitudes to individual public servants, I have
no evidence for any change in attitudes. In a subtle way every white
man with whom Orokaiva come into contact is tested according to various
criteria: fairness, courtesy, willingness to reciprocate gifts and
services, willingness to eat with the people (a rare phenomenon,
this) and above all, his behaviour in the constant battle of wits
and inner strength in which Orokaiva delight. A man such as Mr. Kaad
who was a good man by all these tests, was remembered with much affection;
others, though excellent by the criteria of the Australian public
service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
177 a rather harsh history of earlier contacts, beginning with the murderous
régime of Monckton and culminating in the 1940's in the Japanese
conquest, the Allied re-conquest and the public execution of a small
band of Orokaiva who had sided with the Japanese. The welfare
orientation of the Australian government was perhaps never massively
demonstrated before the eruption of Mount Lamington. At the present
time this welfare orientation is well understood but the Orokaiva fear
the Australian power to compel their compliance. They use what
resources they have to keep this power within limits. They have found
that it is usually fruitless to disobey Australian commands openly,
but power can often be made ineffective if orders are misunderstood
or forgotten or evaded. Furthermore, it is a general rule among
Orokaiva to withhold information systematically from the taupa. It
took me some months to learn that even the simplest information I
had about the Orokaiva was often unknown to Europeans, not because
they were not interested but because nobody would tell them. On a
few occasions when an official asked me a question I would say that
any of his "driver-boys" (that was how they referred to their drivers)
could answer it and the official would answer: "Nobody will tell me.
They all say they don't know." This is indeed a potent weapon against
colonial administrators.

657 It would be wrong to assume that this attitude is directed
177 against Europeans in general, because there was great variation in
the treatment of individuals, and also, it is not directed against
the values Australians are trying to introduce. The avoidance of
communication is largely, I think, a device in the power struggle
between the colonial government and its subjects. The Orokaiva do
what they can to avoid being dominated. In this context, the setting
[623] up of local government councils was a great step forwards. The councillors
do not meet with the same communication bar because the people know
that they can control them through the electoral machinery. Hence it

657 is the councillors who are most effective at communicating whatever
623 they understand of European values and the Australians have been happy
177 to reduce direct contact with the people to formal dealings in which intermediaries can definitely not be used. The Orokaiva say that it is only since the council was set up that their thinking began to change. While this is not to be believed, it would be correct to say that an ideology of change developed only through the mediation of the councillors. The humanitarian work done immediately after the eruption did not lead to ideological change because it did not set up effective mediating institutions.

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

The mission at Sasembata formed a kind of community of its own. From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

It was traditional for villagers also to supply teachers with land for growing taro. At Sasembata, the mission found it hard to get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely Papuan. The eruption led to no defection but to a strengthening of the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst]

this became the core of a new community. At the time of my arrival the European mission sister had been replaced by a Papuan assistant medical officer who, though from another tribal area, strengthened the Papuan missionary group. There were ten teachers, a priest, a deacon and the medical officer, together with their mostly large families--a population that must have been close to 100. Also on the mission station were the boarding school students, adolescents from various districts (their number was around 60), some of them related to the mission teachers. It was customary for the teachers to adopt the children of relatives to be educated on the station under their care. This further added to the Papuan mission station strength.

In this atmosphere the European staff, though indisputably in command, were severely handicapped, as usual, by their lack of information about what was really happening on the station. Not infrequently, I was better informed about this than the head teacher, because the station gossip would flow very easily into Sivepa whereas the mission staff were careful not to tell the head, for fear of inviting instructions they might not wish to obey. The big building projects, such as the hospital, were organised without his knowledge; the workers suddenly appeared and started work; after a few weeks pulled down the building, not being satisfied with it, and started again. They only approached the head when they wanted nails.

To the Orokaiva of the district, the real power struggle was not with the head but with the mission staff. This does not reflect on the head personally; indeed, shortly before my departure, he became a candidate in the Higaturu Council elections and was elected councillor for the ward which includes the mission station, on the votes of surrounding villagers. This very fact, however, indicates that he was not involved in the power rivalries surrounding the station; it was expected that he would be effective in negotiating with the council for water supplies, roading improvements and such like and that, being virtually a stranger, he would not upset existing power relations.

The power rivalries arose because the mission station Papuans regarded themselves as definitely superior to the villagers. The Motu-speakers especially thought of themselves as carriers of a higher culture than that of the Orokaiva--better dances, better loincloths, better headdresses, better pots, and above all, a long association with the mission during which their district had become altogether more civilised than the inland people. It was because the Orokaiva were ignorant that they had to depend on Motu mission teachers.

This boasting troubled the Orokaiva especially because it had some factual basis. Much present-day Orokaiva culture is borrowed from the coast and coastal art and technology is superior in sophistication. Gona was the birthplace of the Anglican mission of the Northern District; hence, the coast has produced a disproportionate number of priests and mission teachers, the most prominent of whom is the Bishop who is himself a Gona man. In these circumstances owners of land surrounding the mission station saw some risks in making

permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among the Orokaiva, though the women do certainly at times act as a solidary group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

575 wife, effectively shaming the husband. Today's organisations are
[593] sponsored by the government as well as the mission. The government
[626] employs a female "welfare officer," attached to the Department of
[657] District Administration at Popondetta, who is charged with the organising and supervising of what are cal'ed women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc, make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on their knowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club, built a club house in 1967 and had the use of a sewing machine. Kiorota had a club house, used not only by the women but also by the men when there were important visitors.

794 In the Sasembata district, the women's clubs became fused with
575 their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too far away to attend regularly at the mission station, several branches were formed, in places such as Kendata and Puri, while the villages within easy reach (Sasembata, Sivepe, Carombi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepe and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepe woman. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepe at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

794 and sang hymns and gossiped. Once a week, or at least as many weeks
575 as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

[554] The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

794 The mission women now withdrew from the club and asked for their
575 membership fees back, which they were given. It appeared that their
578 quarrel was not so much with Sivepe but with the Sasembata village
628 women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[962] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepa.) Basketball and meetings meanwhile continued at Sivepa, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepa was much more subtle.

535 About three months before our departure from Sivepa, a mission
[123] teacher told me that his wife intended to teach Sivepa women a coastal
[199] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepa insisted they should be in the village but the station

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
777 the concern of our present project. It is very clear that some basic notion of Christian monotheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

777 I have referred several times to the tendency to place ancient
[778] ritual under the protection, so to speak, of the new God. Rituals
[775] connected with the taro cycle were performed at Christmas and Eastertime, preferably on the mission station. While the beliefs about the ghosts

177 of the dead remained basically unchanged, Christian burial rites
[775] and cemeteries are generally used in the belief that they are
efficacious in controlling ghosts. Girls were "shown to the people"
[764] after initiation, preferably on the mission station during the Easter
dances. The <u>kere</u> which was a women's initiation dance, was also
[881] performed on a mission occasion (the celebration of St. Barnabas Day,
in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form
881 of initiation ritual to the Orokaiva? This extramural activity,
177 performed in the dead of night, signified a little more than the
intertribal status rivalry analysed earlier in this chapter. The
[533] text of the songs gives no obvious clues to their significance at the
present time. Though it was made up of at least four or five languages,
due to diffusion of the cycle through the Northern District, I managed
to collect a translation of most of it during a tour of Port Moresby
when we visited knowledgeable members of various Musa River tribes.
The songs evoke a series of phases in a woman's life, stating symbolically
her role in initiation, courtship, marriage, childbearing and feasting.
They are very rich in symbolic content which is not relevant here. But
they contain no message that can be related to any modern millennial
or cargo cult. During a visit to Uiaku, in the Collingwood Bay district,
my wife found that the old women in that village knew the songs but
not the younger ones. This points to diffusion from the Musa to the
Collingwood Bay district some decades ago. All this evidence confirms
the mission teacher's own explanation given to me that he introduced
this cycle in order to keep old traditions alive, in order to give more
strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by
881 the performers especially in the very first dances. They might at that
177 time be doubtful about dance movements and words but not about the
781 demeanour appropriate to the impersonation of spirits. At the very
first practise, even the young girls knew the right bearing, intonation
and rhythm. This was not truly the introduction of an alien ritual;
the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to
777 lend it the ambiguity that was evidently intended. It was not the
177 purpose of the mission teacher to set up this pagan ritual in opposition
to Christianity but rather to bring about its continuity in a Christian
797 order. I have already shown in earlier chapters that the Christian
dispensation is conceived as not only a religious but also and importantly
a socio-economic one--that Christianity, wealth and wage labour are
perceived as part of the same complex. If it can be made to accommodate
women's initiation ceremonies (after jettisoning, of course, those
aspects to which the clergy takes exception) future generations will
have the strength of the forefathers. This desire for greater
strength, in a physical and numerical as well as spiritual sense,
was often expressed to me.

Section 4: Social Services

797 The mission contribution to health and education has been set out in the previous chapter. It is of course the mission rather than the government which has pioneered the social services in the Territory. The first contact the Orokaiva had with Western medicine and education was through the mission sisters and the teachers trained, however inadequately, by the mission. The scholarly inadequacies of the mission teachers, though regretted, had not marred the primary aim of the church which was to inculcate Christian values and introduce some acquaintance with the arts of civilisation. If before the second world war, education was not viewed by the mission as a weapon in the struggle for economic development, it must be remembered that economic development of the Papuans was not deliberately pursued as an objective by the government or any other influential group in the Territory.

797 At the present time, mission education poses a dilemma. The government school inspectors express their concern over the generally 871 low academic standard of the smaller mission schools. It has now been established as a rough rule that schools, in order to receive 875 government approval (and therefore financial assistance and examination facilities), should have a ratio of trained teachers of at least one in three. The term trained is defined, for the benefit of the mission schools, as meaning the possession of an A certificate. Over the whole of the Northern District, one in three is approximately the average.

797 There has been no case where the government has actually caused a school to close down. Such action would certainly greatly anger the 871 Anglican authorities, who argue with some force that the government has no practical means to replace the educational service of the missions. It lacks trained personnel, just as much as the mission does. Moreover, it is far more expensive to conduct a government school than a mission school and the government cannot afford this extra expense. Finally the mission argues that for the Papuan, as an essentially religious person, education ought not to be divorced from religion.

875 Meanwhile, the government is rapidly upgrading its own standards of training. It restricts to the utmost the intake of teachers with 657 A certificates and encourages, by means of salary and other incentives, the obtaining of B and C certificates. It is gradually widening the scale of its operations. At the same time, the government is performing a most valuable service by giving refresher courses to practising mission teachers, thus improving their knowledge and giving them a more professional attitude to their teaching tasks. I watched Sasembata teachers who went to these courses which certainly provided much stimulus. In Hohorita, the mission conducted special classes for adults who lacked a standard 6 education. These were mostly attended by mission teachers who thus became qualified to do further study toward a teacher's certificate. The mission conducted some teachers

training schools which prepared students for examinations for these certificates.

Though many men with teacher's certificates and advanced medical training take up positions with the government, where salaries are far higher, there is still a considerable inflow of qualified Papuans into the mission ranks. One reason for this may perhaps be found in the sketch I gave earlier in this chapter of a typical mission station settlement. The educated man who takes up a job with the mission receives his reward, not only in the satisfaction of religious service and the approbation of the mission towards which he is usually obliged for his education, but also an assured social status in a community in which he can feel thoroughly at home and can set up the type of social relationships to which he is accustomed. A government position on the other hand tends to isolate and detribablise teachers and hospital workers and thus be less satisfying socially.

Finally, it should be stressed that the mission is responsible for the education of Papua's educational élite. Martyrs School, once built at Sangara where it was destroyed by the eruption, and now established just outside Agenahambo, prides itself on a higher academic standard than any of the other secondary schools of the Northern District. It is able to choose the most proficient of the products of the primary school system, not only in the Northern District, but in the whole of Papua. One man in Sivepe and one in Inonda had been to this school but neither had continued to the secondary forms. But the church-educated élite will dominate the Northern District for some years to come, until the graudates from the new University of Papua New Guinea will take over this status.

CHAPTER VIII: Selection of Emigrants

At the time of the eruption, the whole of the population fled from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

Recruitment to these villages was therefore non-selective and by government order. The amount of land available at the new location and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Kaad that they wished to form a village together, Mr. Kaad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

When self-selection of resettlement sites occurred, the following were among the reasons for choice, as is demonstrated from evidence at Sivepa and Hohorita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hohorita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepa, we witnessed the exodus from Awala, because of land problems; the exodus from Pamba, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garombi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garombi, the links are far more complex and will be discussed under the heading of "Internal Influences."

The village group was the organisational unit of settlement. No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

621 Groups smaller than a village were rarely resettled because the
657 government placed almost total reliance on village constables for leadership roles. Piecemeal removal would have left some people without the leadership of a village constable. While the people would probably have managed quite well without him, the government could not have controlled such a group. In any case, the close cohesion of Orokaiva village groups was almost the one element of stability that was left immediately after the eruption and evacuation. The simplest administrative policy was the one actually followed, namely to leave the village groups undivided.

The factual data on emigrant allocation have been given in previous chapters.

PART II: INTERNAL INFLUENCES

CHAPTER I: Size and Distribution of Relocated Community

Section 1: Statement of the Problem

121 This report is intended to answer one general problem: what has been the effect of collective evacuation and resettlement upon one Orokaiva community (Sivepe) directly affected by the eruption of Mount Lamington. In order to establish this effect, we are studying Sivepe as well as a control community (Inonda) that was not evacuated and resettled. In the first part we have made one assumption which obviously can never be accepted without question and which, in fact, we shall find to be partly false: namely, that the two communities can be regarded as homogeneous. We have tended to speak of "Sivepe" and "Inonda" as though internal variability could be ignored. At the same time, I did stress at various points that I thought one of the differences between Sivepe and Inonda might be that in Sivepe acculturation had proceeded relatively homogeneously whereas in Inonda the range of variation was wider.

A hypothesis of this sort can be tested only by a systematic study of internal variation in the two communities. In this and the following chapters I shall introduce a number of classificatory principles, commonly used in social anthropology. After classifying individuals in Sivepe and Inonda by these principles, I shall be able to compare the two communities in respect of internal patterns. The first principle to be chosen is that of spatial arrangement. Closely associated with this are the principles by which the Orokaiva themselves view their communities as subdivided into bounded social groupings. My procedure will be, first, to state what are the Orokaiva principles of classification, which apply to both communities alike. Secondly, I shall set out how the two communities under consideration can be classified according to these principles and in what respects they exhibit similar or dissimilar patterns. Where patterns are dissimilar, an explanation for the differences will be attempted and I shall consider whether the post-eruption experiences may have been a factor.

Section 2: Spatial Arrangement

621 361 The Orokaiva concepts connoting residence units that may be found in a village are mainly three: da--village, bande--house and

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or banda, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (banda), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or banda. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivapa, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[197] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, with a slight
628 decline in population (to 45 in 1962 and 41 in 1967) and a decline in
the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
628 abandoned now. Although these two da were less than a hundred yeards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hobowita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
361 further than about 1948 when the village Pamba was built, combining an older Sive and a now defunct village Pusahambo. The census list current at the time of the eruption still shows the population of the
[162] two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Garombi were considering moving in and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

361 conceived as part of it. (People spoke of the residents as living "in Sivep," not "in Orinasusu.")

In the new village, the number of houses built outside the regular rectangular plan was even larger. Of the 25 houses, only 14 were strictly where they were supposed to be; a further three dwelling units might be considered "in line" if the term were used very broadly, but eight formed a line of their own, roughly parallel to the two planned rows, with doors facing towards the arsha. This line was on more elevated ground than the rest of the village, and about [182] two chains behind the nearest planned row. The decision of all these householders to build outside the regular rows is in part explainable by features of the kinship structure, to which I shall refer later. We should not ignore, however, certain historically and psychologically determined attitudes which resisted the regular village pattern. In this connection it is significant that in only five out of 11 cases the irregularly placed houses were built on land to which the occupants had some special claim. Houses that were out of line were at first all of much lower standard in size and construction.

Because of the very close scrutiny the inhabitants of a village give to one another, as well as the numerous regulations that are now being enforced in villages, Orokaiva feel the threat of regimentation implicit in the large resettlement villages. Even the small distance of two chains provides a valuable measure of detachment for people many of whom used to live in much smaller villages and managed to evade most of the modern regulations. One man ceded to pressure and built a house in the "line" in which he placed his daughters-in-law and their offspring but he stayed in the old house on the hill. There was much criticism too of the unwillingness of one man on the hill and the owner of the detached house No. 8 to clear the tall weeds between their houses and the rest of the village. I feel sure they let these weeds grow with the specific purpose of emphasising the distance. It was generally agreed (and confirmed by Mr. Waddell's data) that these two men were among the most diligent gardeners in the village, so that "laziness" provides no explanation.

[342] A further dimension of freedom is always available to Orokaiva by the institution of the "garden house." A garden house is a rough shelter where people can sleep in the heat of the day while they are at their gardens. Some garden houses, however, are good, sound structures suitable for semi-permanent residence. Sometimes people stay at them overnight, sometimes for several nights in succession. This is done at times when there is a great deal of garden work urgently needed; by staying at their garden houses people save time and avoid distractions. It is also done when there has been a quarrel and people like to stay out of sight for awhile; finally, it may be done simply for reasons of privacy. Some men stay at garden houses far more frequently than others. One Sivepe man is staying there constantly and has no village house at all, nor did he have one in Old Sivepe. Generally, stays of more than one week at one time are most unusual. Most people never stay away for longer than one night.

361 Comparing Inonda and Sivepe, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepe shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 592 616 614 Within a village, two kinds of kinship group larger than the elementary family may be distinguished, namely the javo wahai (clan) and the hae (lineage, or plant emblem group). We may also distinguish two kinds of residential group, the occupants of a bande or side and of a bande or house. On the nature of the clan I shall be brief here, reserving detailed documentation for my doctoral dissertation. It seems to me mainly a political unit, held together by--in some but not all cases--belief in common descent from a single patrilineal ancestor, by the common name (javo) by which they call themselves and which they call out when slaying an enemy or a pig or in other moments of great stress, by the recognition of obligations towards and claims upon others who bear the same clan name. Rimoldi (1966: 33) is right when he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used to denote collectively all persons sharing the same plant emblem. The clan name (javo wahai) is transmitted only patrilineally, but the transmission of the hae is more complex. A person regards his hae, which may be any plant or part of a plant, or another natural substance, as a part of his own identity. He may respect it in the manner of a totem but such avoidances seem always to have been to some extent a matter of personal choice. (Williams, 1930: 127-218) The hae is used in a number of social contexts as a mark of identity. Williams seemed to believe that a hae was the distinguishing mark of a clan, but later investigators (Crocombe and Hogbin, Rimoldi) take it to be the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

613 in terms of a rigorous genealogical model, which is unfamiliar to Orokaiva, but in the sense that both are identified with the same plant or substance and thus very closely akin.

While clan affiliation is, in practise, determined by political [614] considerations, and a person may decide, upon calculations of family advantage, to assume a new clan name, the hae is utterly unpolitical and hae affiliation is a better indication of true blood relationship than membership of the same clan. In the hae, but not the clan, a kind of hierarchical classificatory principle may be found. To explain this, I should first point out that most informants I interviewed had at least four hae, two paternal and two maternal ones, and not infrequently I recorded as many as three paternal hae, and a total of five. Many people, when using a hae as a mark of identity, for instance on the road, to show they had been there, would actually use two hae plants. For instance, almost everyone in the district used the hae called sasaha (a grass), but if another hae, tandere, was added, a person finding these signs would be able to identify the owner as one of a quite limited group of people. For the purpose of this discussion, I shall use the word hae as meaning such a combination of emblems which sufficiently define identity. Such a combination of hae never defines an individual or even an extended family as usually several extended families share the same combination. But the patrilineal units thus defined are always smaller than a clan. To this extent, earlier authors are thus justified in calling them "lineages." It would be wrong to suppose, however, that the same combination of hae cannot be shared by fellow villagers belonging to different clans, for this is often found. Thus, those translating the word hae as "lineage" should be careful to avoid the implication that such "lineages" are segments of clans.

The population of Sivepa is very hard to classify into hae because I noted 42 hae in use, only 11 of which were shared by at least four adults. Nonetheless, the fact that two persons share a hae is often a valuable clue pointing to a close relationship that is of considerable social significance, but that might otherwise be [621] ignored as idiosyncratic. By far the closest bond that can exist between the members of different extended families is that they share [582] both a clan name and common hae. When such a bond exists, rules of exogamy are stringently enforced. These rules also apply, but less stringently, if two persons share the same clan name, but no hae, or if they share a hae but no clan name.

614 For our present purpose, it will be most convenient if we 621 classify Sivepa households according to the clanname of that person in the household who is what Fischer (1958) has called the "sponsor," i.e., the person by whose presence in the household the residence of the family in Sivepa can be explained. On that basis, 13 households and the bachelors' house may be classified as Jegase, eight households as Seho and six as Sorovi, as in the first half of 1967. It is desirable, however, to observe how rapidly this pattern of clan

affiliations has changed. In 1962, when Rimoldi did his survey of the community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timunu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timunu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timunu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

One striking characteristic of the village layout of New Sivepe is that all the Seho houses are grouped together on the same bende while the other bende of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss under the term "diametric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

361 villages (Carombi, Soroputa, Hohorita). When New Sivepa was built it
614 had become a familiar procedure and was simply copied from other villages.
616 It is an interesting adaptive institution, and the Orokaiva answer to Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far
[177] was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepa but by no means in all the villages.

614 -- Rimoldi classified the Jegase clan into four lineages (Barekipa,
613 Sesewopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He further distinguished two Timusu lineages (Hajejopa, Pekuna), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

621 Inonda, in the same period, has developed in the direction of
614 a one-clan village. In 1951, out of 12 households, eight were of the Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepa, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

592 Informants told me of one rule regarding household composition which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do not like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working for wages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)[A]

592 My own impression is that the normal household is composed of a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by themselves, even if they have no young children living with them and
[589] do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of 162 the population by age, sex and marital status (see Table 16) shows that 464 the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, 166 in Sivepe, than the number of women. The reason for this change is 167 that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be 464 occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is 583 unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepe, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his [489] affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

593 Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. 592 Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden [464] and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepe women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

114 kind enough to show me this study in manuscript, I shall utilise it here. The general question with which Mr. Waddell is concerned is
464 whether earlier students of societies depending on shifting agriculture are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepa, what potential labour surplus there might once have been has already been taken up by labour migration of male adults (which, for his sample, he puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines economic activity as comprising only the production of food, clothing and shelter, and argues that, given the existing socio-economic matrix, all the other activities listed on his time charts (see Table 5) should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks and who concludes from this that a vast potential labour surplus is thus created. Waddell shows, by a quantitative study of the allocation of time within activities, that only 38.5% of the time allocated to an activity is actually given over to the main task, and even if one includes ancilliear, and other productive tasks, this raises the proportion to less than 50% of the total time devoted to that activity. (See Table 17.1)[B] As steel implements are used for only a portion of productive tasks, they did not, Waddell argues, make a crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepa was small, how was it possible to fit in such new additional activities as the growing of coffee? Mr. Waddell was
461 in an excellent position to discover this as at the time of his survey
241 seven of 15 households surveyed engaged in cash-cropping; he was therefore able to inquire how this affected the time spent on subsistence food production. As it happened, the median time spent on subsistence gardening by the whole sample equalled precisely the median time spent by the cash-cropping households. (12.6 hours per week, vide his Table 5:5) It appears from the table I derived from Mr. Waddell (my Table 17) how the cash-cropping families fit in this extra work: they spend a great deal less time having rests and meals. While non-cash croppers allocate only 28.4% of the time within activities to their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell gives interesting explanations which account for part of this discrepancy, even if full allowance is made for these, the fact remains uncontestably that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the most acculturated and industrious members of the community. This
177 seems to suggest a considerable heterogeneity in working habits as between the members of the community. The author clearly shows this heterogeneity to exist as between the sexes and between different age

A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepe never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepe today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepe did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.

The question is an interesting one, but Sivepe does not
114 provide a clinching counter-instance. Mr. Waddell's sample was taken
entirely from the Jegase and Timumu clans, while he did not collect
[489] data on travelling time from the Seho clan. Now it is the latter clan
[423] which owns most of the land around New Sivepe, so that their travelling
time is (at least for most families) substantially reduced by the shift.
Furthermore, five of the Jegase households (some of which were formerly
called Timumu) now have gardens very close to New Sivepe. The main
sufferers appear to be two families who migrated from Binduta recently,
whose land is mainly close to Binduta, and against whom feeling has
been building up over the last few years. Mr. Waddell is right,
however, in stressing that the major reason for the shift (as given by
informants) was the closeness of the new village to the road and the
mission station. As such the basis of the shift was practical and
ideological but I believe that overall travelling time was reduced
if both Seho and Jegase clans are taken into account. Certainly the
new village is very close to the land of most of the Sorovi people
who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time
could be reduced, and thus working efficiency increased by land tenure
conversion. He has in mind, I think, the arrangement already found
in Papuan returned servicemen's settlements established by the government
where each individual family is settled on its own 20-acre block and
grows cocoa and subsistence crops there. Conceivably, when tenure
conversion is completed, the Orokaiva might be encouraged to live on
individual farm holdings rather than in compact villages. Some planners
in the Territory are actually playing with this idea. It has many
drawbacks, however: distance from roads, from schools, collapse of
social control institutions, abandonment of useful social development
projects such as the provision of good water supplies in the resettle-
ment villages.

Comparison with Inonda suggests that as the proportion of adult
males lost through migration from Inonda is smaller, and none of these
males have left dependents in the village, and furthermore, as the
amount of cash cropping work is relatively smaller, the Inonda people
are less pressed for time than those of Sivepe. This is borne out by
the fact that they are away from the village more frequently as
Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of
time spent on productive work, but the amount of time devoted to social
activities and contacts outside the village declines even more steeply
after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. How in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timunu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepe
[177] is at present almost wholly composed of men of the Jegase clan. The age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20)[A] show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

614 its efforts upon what were then the Jegase and Timusu clans, to the
463 exclusion of Seho. When my wife and I came to Sivepe, Jegase at once
177 claimed us, built our house for us and was ready to perpetuate the
123 familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of
614 Jegase did not actually make much difference. Seho grew just as much
177 coffee; the Seho clan leader was always in the vanguard for innovations
184 such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

614 Finally, the leader of the Seho clan (without schooling, but
157 with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him atough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

871 The younger people are mostly going as far as they can (up to
614 Standard 6) at Sasembata School; so far only one has gone further.
189 One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

184 I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

184 The difference in pattern between the two villages may well be explainable by the influence of the improved schooling and the close 197 contact with the mission station found in Sivepe, in common with many of the other resettlement villages. These improved facilities may to some extent be regarded as social consequences of the eruption, as they were developed in the resettlement villages in the wake of resettlement to replace the earlier facilities at Sangara.

434 Money income has risen rapidly since the war. About the time of the eruption, six of the present inhabitants of Sivepe were away 184 on jobs outside the village. Not only are far more Sivepe people absent today on wage work, but the village itself has a steady income. At the time of Rimoldi's study, his sample was said to have spent annually $410 while its income for 1962 totalled $328 or $28 per household. Today this has risen greatly; the 14 coffee gardens, with over 4,000 trees, produced some 6,000 pounds of coffee, worth in all about $1,000; gifts from absent wage-earners over the year totalled at least $500 and other income (paid work, sale of products, etc.) at least $200. This makes up a minimal total of $1,700 or an average of $60 per household. I would not be surprised if actual total income was as high as $2,000 but it is very hard to obtain reliable facts. There is no doubt, however, that the coffee gardens have made Sivepe substantially wealthier, while in Inonda only the government driver has substantially improved his position since 1962, when Inonda's average household income from paid work, produce and gifts was [465] $33 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular salary of about $700 p.a. stands out in both villages.

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which is hardly more than four miles away. Both the Soroputa men had married Sivepe women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

[591] [582]

621 582 The traditional pattern was for a man to marry a woman from a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 169 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 628 [582] Of the ten adult women living at Inonda, four came from the Sangara tribe, one from Kendata in the Sasembata district and the others from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even only one generation beyond the present residents, we find much the
[729] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[723] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

167 already pointed out the usefulness to a village of such men of multiple
563 loyalties because they were the natural ambassadors if something needed to be negotiated between the two groups.

It will be seen that the effect of the eruption on the homo-
621 geneity of Sivepe has been minimal: one stranger came into the community
167 through marriage. The ideology engendered by the resettlement villages did lead to some accretions in Sivepe population over the last decade before my visit, but these accretions (from Binduta and Garombi) would hardly make the population heterogeneous. These migrations were over a very short distance, short enough to allow migrants to maintain gardens on their own land, and were facilitated by existing agnatic and cognatic links.

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be [881] made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. [583] Similarly, the inclusion of money in bridewealth is an innovation which, [436] once made in a homogeneous community, is bound to become standard practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, muc.. change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at Inonda, and only one, as far as I can find out, in Sivepe--and this 798 man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Sava, and one boy (now the

871

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jasembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

657 I have not yet referred to the deepest acculturative influence
177 that was absorbed before the time of the eruption, namely the abolition of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [484] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

[731] Developments since 1951 provided increasing opportunities for gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

CHAPTER V: Familiarity with New Homeland

In spite of the pax Australiana, Orokaiva still view with some apprehension visits to villages of traditional enemies, if friendship has not been explicitly established between visitors and host village. In 1951, this feeling of apprehension was even stronger than today. I was told that in pre-contact times a man would be extremely rash to visit a village where he was unknown as he might well be killed. Even then, however, it was sufficient protection if a visitor was able to ask by name for a kinsman or friend resident in that village. This person would then take the visitor under his protection and he would come to no harm in the host village.

A story about a football match held in Sangara shortly before the eruption demonstrates the dangers that existed even then. A Sangara team had visited a village in the Gona district and had defeated its hosts at football. On the way back home, a member of the team fell ill and died from blood poisoning. The Sangara people attributed the death to sorcery by the defeated village. When shortly afterwards this village visited Sangara to play the return match, the Sangara came to the football field armed with hidden knives, guns and pineapple clubs, intending to kill their guests. A bloodbath was avoided only by a thunderstorm during which the match was cancelled.

In these circumstances, it is understandable that the Sangara and Isivita people were unhappy about their evacuation to camps in the coastal region after the eruption. It was not, of course, the specific instance just quoted that made them uneasy but a general apprehension of danger. Certainly, deaths and illness occurring in these camps were very liable to be ascribed to sorcery. This is no doubt one reason why the government lost no time in closing the coastal camps down and bringing the inhabitants back inland, placing them in temporary accommodation in Popondetta end April, even before permanent resettlement villages for Sangara could be planned.

The camp at Ilimo did not create the same kind of worry, as Orokaiva has no reason to fear sorcery on the part of the Ilimo people. The Sivepe people feared no harm from Ilimo because two Sivepe families had friendly and kinship relations there, while there was no history of hostility between the two places. Ilimo, furthermore, was near some European plantations where people of Sasembata district at times found employment. While the Sivepe people were in the camp, they were on visiting terms with the village people. It is important to realise that the pivot of the friendly relations between these two villages were a small number of individuals who were linked by formal bonds. Of the two bonds, one was affinal while the other was a friendship bond based on contact between a Sivepe plantation worker and Ilimo village people.

CHAPTER VI: Addition and Loss of Community Members

Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16 will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. It seems likely that this increase should in part at least be due to the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant demographic process is the outflow of men as a result of labour migration. Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timunu) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had been residents of Garombi before they became labour migrants. There were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Carombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership.

It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Carombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
dispensation, the greatest favours always went to the largest villages.
167 The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
under consideration. There was the same rise in the number of children;
[464] there was little loss through labour migration (only one man in 1962;
as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
[621] explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals who seemed to play a key role in development. The study of these key individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilance when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

177 large extent to the bloodbath of these early days. It was he to whom,
657 above all others, the compulsive show of obedience Orokaiva make to white men can be attributed. It is therefore interesting to inquire what was the influence of Papuan culture on Monckton.

In order to show the atmosphere in which Monckton operated I shall quote a minor example (bypassing some cruder and more obvious passages of his books in which he describes shootings, floggings, tortures, etc.) where a sorcerer is brought before Monckton's court, accused of such crimes as causing a virgin of a distant tribe to produce still-born twins and causing the moon to alter its course and colour. Monckton advised the accused, so we are told, to plead "not guilty." "But I am guilty. I should not be much of a sorcerer if I could not do a little thing like that." In such cases, says Monckton (1922: 98). "the sorcerer would get a fine or a few months' imprisonment," Monckton explains that the New Guinea administration made witchcraft a crime punishable by law as a means of establishing respect for white man's law in the eyes of the Papuans.

[431] Monckton was very well aware that he was thus lending himself to a reciprocal transaction in which each side proffered the other a certain measure of prestige. The white man was most graciously given by the sorcerer a demonstration of his respect for the white man's law; in return Monckton (quite consciously, by his own admission) helped the sorcerer to "establish his reputation as a man capable of marvelous things, a man to be feared and conciliated with gifts" (ibid.: 99). On what basis, then, was the white man's law respected? It was on the principle of exchange which dominates and has always dominated Orokaiva social relations. (On this topic, see my doctoral dissertation.)

Monckton always bought his loyalties in this precise fashion. On one occasion (1934: Chapter 1) he invoked Papuan help to kill off a few troublesome marauders on the tacit understanding that the captors would be allowed to eat them. He appointed as his constabulary persons of high rank from various districts so that the Papuans would be afraid to kill the constables: their death might induce their own people to start a tribal war against the killers. In return the constables knew that their own villages would be quite safe from Monckton's bloodthirsty attentions. Furthermore, Monckton tells us that he was in the habit of making presents to his constables, paid for out of his own pocket, over and above whatever was supplied by the government. With these presents, he bought a kind of personal loyalty which was over and above that owed by the constables to their employing government. On one occasion his constabulary marched into Government House to protect Monckton while he was the guest of the governor.

Monckton admits that he made himself rather unpopular with the officials of Port Moresby. Neither the crudity of his methods nor the means by which he procured the special attachment of his praetorian guard were regarded as proper in a British officer. Some of his exploits,

such as his threat to chain some recalcitants to corpses they had refused to bury, never entered his official despatches; other exploits led to a series of inquiries and finally to his being edged out of the service.

While Monckton's methods were never practised again by senior officers in the Northern District, the tendency for the field men to become involved with Orokaiva ways of thought and thus incur the displeasure of Port Moresby has persisted. The Higaturu Council's land registration scheme, dreamed up by Popondetta public servants, is a case of that tendency. In this case land title deeds were issued which had no validity in law but which the district commissioner would protect with his strong right arm, such as Monckton would have done most efficiently. The arrangement was repudiated by higher authority in Port Moresby. Very often relationships between white employers and Orokaiva exist on two levels: an official level where wages are paid for work done and an unofficial level where the Orokaiva receives some small extra gifts and rewards his employer with some special loyalty. These "bukshees" are a regular pattern for which some allowance is made when calculating labour costs.

A second and completely different type of expatriate was Mr. Kaad, who was in charge of the Ilimo evacuation camp. He neither relied on threats of dire punishment nor on the Orokaiva system of exchange bargaining. He came to the Territory in 1942 with the Army and stayed to become a patrol officer. He was soon seconded with the Department of Labour. It became his task to educate expatriate employers whose methods of treating their labour conflicted with the government's plan of improving relations between Australia and the Papuans. In particular his task was to advocate better methods of labour control than corporal punishment which had been extremely prevalent. Orokaiva informants told me that in fact corporal punishment on plantations ceased after the second world war. Mr. Kaad later became an Assistant District Officer. At the time of the eruption he had just come back from leave to move to a new post, when he was chosen for the delicate job of looking after the evacuation camp.

His task at Ilimo, as he saw it, was to help the recovery of people who "had their world shattered." He was greatly in sympathy with the new policy of promoting Papuan economic development and tried hard to make the resettlement villages he set up into foci for development. At the same time he was always flexible and ready to place the interests of recovery from shock above the interests of reorganisation. Shortly after, he was crippled in an accident. In 1967, he was teaching at the School for Pacific Administration in Sydney, training future generations of patrol officers in techniques of social and economic development which he practised before he knew them theoretically.

Most of the other expatriates who had dealings with Sivepe and Inonda moved quickly into anonymity. The roles played by a succession of government and mission servants were undoubtedly key roles, but their contact with the particular villages was too casual for their

177 individual names to become part of village history. The anthropologists
[657] who had been in the two villages, under the auspices of A.N.U., were
[125] all very well remembered by name. When we included in a questionnaire a request for the names of Europeans our informants knew well, we were given a list including all the anthropologists, by their first names, and nobody else. This was almost a standard reaction. I am not at all sure that this close acquaintance made the anthropologists into key figures in development or that they were more influential in socio-economic development than the mission and government servants who, though anonymous, may have achieved more in this direction. A.N.U. personnel have made presents of coffee hullers, both in Sivepa and Inonda; one anthropologist taught his key informant in Inonda to drive a car, as a result of which this man found a permanent job with the administration. These certainly were tangible moves in the direction of economic progress.

177 I found that among the Orokaiva, unlike the New Zealand Maori,
123 I was never asked my opinion when some community decision was to be made nor was any greater interest displayed in the views of my predecessors. I was usually told when something had been decided (and decisions almost always seemed to be reached in my absence) and naturally I always expressed pleasure at receiving the information. The pattern was different only when I myself was directly involved. On the other hand my participation in community activities was sought and much appreciated. Our behaviour was closely observed and some minor innovations in housekeeping (the making of washing lines, airing of blankets, etc.) may be due to my wife. Everybody seemed concerned that our presence should not disturb the precarious balance of power--and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as key personalities, it is because Orokaiva attach special importance on the kind of relationships that are thus established with whites. I have already mentioned some hints we received that we might be returned ancestors; even if imagination does not go so far, the daily relationship established with the anthropologists comes close to what Orokaiva would regard as tolerable and human. It is in the texture of life that grows up between the population and the anthropologist rather than specific innovations that the importance of his visit lies; perhaps without realising it, he nurtures an ideology.

875 One of the significant mediators during my time in Sivepa was
657 the head teacher of Sasembata school. His case will provide an example of the dangers of generalising about expatriates who are in fact an extremely complex group very imperfectly known. This man, aged about 28, had led a somewhat bohemian life in Australia, as a photographer, broadcaster and advertising agent. His decision to join the New Guinea mission was in part a conversion, in part a search for identity, in part a search for an assured place in the world. He married a mission teacher met in New Guinea. He found, in fact, that none of the fixed expatriate categories quite fitted him: he had absorbed, while in

875 659 Australia, enough of contemporary thought in literature, art and allied subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 666 [123] [829] Though membership is open to persons of any ethnic group, it seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority. The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

environment, though he fulfills that role as well, as we have seen in the case of the introduction of the kere. The cultural values he has the duty to transmit belong to the expatriate culture of which his own knowledge is bound to be somewhat superficial. He therefore has three cultures to manipulate, not merely two.

The most senior, and by far the most influential of these mission people was the pastor. Unlike the others, he did not permit himself to gloat over the superiority of coastal culture; in my own interviews with him I found his attitude towards Orokaiva culture to be consistently one of respect. He would point out differences between Orokaiva and his own people, but unlike the deacon and the teachers, he would do so with objective detachment. He felt very much the burden of his role as the local representative of God.

At the time of the eruption, he was a mission teacher, but shortly afterwards, he was sent back to Dogura for some years' training for the priesthood. Upon his ordination, he was sent to Sasembata in 1955. At that time only a small minority in Sivepe and the other villages had been baptised. By 1963, he had drawn almost everyone of his parish area into the church. He told me that this was not a trend peculiar to his parish; in 1963, there had been a great many baptisms throughout Orokaiva territory, and pagans had become quite a small minority.

A paradox in his position, to which I have already referred, was that though people were very cooperative in church work, attended his services, his special meetings, provided labour and materials, accepted his adjudication in quarrels, had him bless their guns and always showed him the highest respect, they would not give him land even on a semi-permanent basis. I have explained what I think to be the reason for this, but it was hard for the pastor to accept. He was threatening to leave and go to another parish where he could get some land. To him this was as symbolic as to the Orokaiva: it seemed unjust that after doing so much and being so familiar with the language and culture, they should insist on treating him as a stranger. Indeed, if he had settled as a private person, it would have been very harsh.

In Inonda, there were currently no key personalities of this category. Religious services were conducted by a local man. The retired Sangara mission teacher, however, had definitely been a key personality from the time of the eruption until his retirement in 1959. Though he was an Orokaiva, he belonged to a tribe which had been the most dangerous hereditary enemy of the Inonda people and before whom they had had to flee from their traditional territory around 1910.

The teacher, whose baptised name is Moses, was called Kusuale at birth, his namesake being his father's father. The latter, so I was told, was named in "the old way": it was the name of an enemy who had been recently killed. Moses went to school, was trained as a mission teacher in Dogura, and took up teaching in 1922 or 1923. He taught in his native district (Sangara) until the Japanese invasion, after which he closed school and went into the bush with the rest of

177 the people. When the Japanese were gone he went back to his old village;
797 around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.
[582] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are
[431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowl-
[754] edgeable about the holding of feasts and their magic and that he feared

his powers of black magic would be undermined by the church if he joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

One of his sons, however, did leave the village to join the A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

This son, baptised under the name of Lawrence in 1963, is now about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepa. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepa to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepa, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepa. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

Lawrence was comparatively well off, largely because he was a good coffee producer, but also because he received bridewealth from three daughters, continuing gifts from his sons in law and from the

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

177 I asked him what he thought were the qualifications of a leader.
623 A leader, he said, must be very smart and understanding, have a lot of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[151] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegase. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence
[559] disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

123 554 159 to help others; he spoke softly and gently but when necessary could be firm and tough; furthermore, he had a relatively wide experience of the outside world. He had been a hunting leader before this task was transferred to the representative of the church council; he was also a leader in football. He came of a lineage with small land holdings in the Sivepa area, but his father had bought rights to additional holdings (with money Robert had earned) and his mother's brother had given him the use of other blocks Robert will eventually inherit.

159 When we came to the district he had just started his new house and was living, like many others in a small older one he had brought from Old Sivepa. He sold us his new house and stayed in the smaller one until we had gone. Though his house was thus among the most primitive in the village, it attracted more village visitors than any other; Robert and his rather attractive wife were popular. When the woman's club house was to be built, and when Lawrence had given the land, it was Robert to whom the women turned as a work leader. It was also Robert who decided that the work on the village houses and the mission hospital had more urgency (and that the clubhouse had better wait until it had ceased being a pawn in female factionism). Robert went to Port Moresby for a few months after a violent episode in his tumultuous marriage, hoping he would earn enough money to open a trade store.

He had about four years of working experience outside the village, as a houseboy, with the A. P. C. and on road work. Since then it was his ambition to start in business; in the early sixties, Jegase seems to have made some attempt at a trade store with disastrous results. He hoped to do better the next time, but a trade store opened up in an offshoot of Sasembata village just next to Sivepa, so that this is destined to remain a dream. Robert composed several songs over the year, and was constantly practising his drum. People usually waited for him before a dance practise could start, though he was not formally the dance leader. He also managed all the diplomatic manoeuvers necessitated by our presence. He did this with great honesty; I [123 115] could always rely on all he said. Indeed, if it had not been for him and his father, I wonder whether I could have come to grips with Sivepa at all. He also piloted us through the maze of the Orokaiva exchange system. He was the only person who never imposed on us, never asked for gifts. There was perhaps some calculation in this, as we were more disposed to respond to generosity than to the sharp trading engaged in by some others.

He had stood as a candidate for the council two years earlier but had been defeated, partly due to opposition from his affines. His first formal leadership role (apart from hunting and football) was as representative for Sivepa on the land adjudication committee. His father-in-law would have been better qualified, as he knew the land boundaries better, but he could not hold both committee posts simultaneously. It was interesting to see that in this situation, where the

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any of the others. He was the only one to have recognised that our [126] civilisation actually does have some moral values. I recorded stories [124] from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a 157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned servicemen's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepe, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepe, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the woman's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were though extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepe, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepe was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepe, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interpret a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepe was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepe leadership.

CHAPTER VIII: Factionalism

121 621 In the preceding chapters I have invoked a number of principles of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), acculturational categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 665 In Sivepa we found political membership groups (clans) which showed marked differences in certain acculturational indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepa, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepa, though perhaps it was easier to challenge in Inonda, where there is a "big man" as leader. Another classification, namely between male and female,

665 562 should also perhaps be briefly considered as, under the impact of the women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepe, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

121 To what extent can one speak, in these villages, of factionalism? This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt
[578] to take sides along this predictable lines of division. Among the Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepe, were hardly ever repeated from one occasion to the next. Factionalism in Sivepe was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

665 out of acculturation, such conflict falls outside the charter of the corporation, so that I think one may still speak of a Christian and a pagan faction, even though the membership of these factions happens, for the time being, to coincide with the membership of lineages. Another problem is whether factions can exist only where there is leadership. One of the interests expressed in Dr. Barnett's list of variables is in "latent factions"--and these may exist where one side (or perhaps even both sides) have no leader. Thus, I think one can speak of factions in Inonda, even though the pagan faction had no leader; this deficiency did, however, stop factionalism in that village from becoming more manifest. Nonetheless, even though the pagans had no leadership comparable to that of the ruling family, they had their own informal ranking system and were able to formulate common opposition, e.g., against the women's club. This informal leader was an elderly woman who terrified my wife but whom I later found to be an intelligent informant. Even in Inonda, factionalism did not go nearly as deep as among the modern Maori: the feast at Inonda rallied all the families and the factions became submerged, in a cause with which everyone agreed.

Perhaps, the main reason why Orokaiva conflict groups do not qualify as "factions" by Nicholas' definition is that they are not structurally diverse. I mean by this that conflict groups tend to rally on one particular issue, but that on any other issue the personnel are bound to be different. An interesting example is furnished by [623] [666] the elections for the Local Government Council. A respectable Sivope man entered as candidate and collected six votes. These were from his own extended family who felt bound to vote for him. The others did not support him on that occasion, but on another occasion, when he attempted to rape the wife of a clansman when drunk, he had a great number of supporters and the family who had almost suffered this grievous misfortune had hardly any supporters at all.

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 The Orokaiva of today has to act in conformity with two
177 conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 There is, for instance, a taboo on using the names of affines.
178 When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 The temporary labour migration of young men (who sometimes
167 leave wives behind in the village) continues a traditional pattern of
178 behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables
178 such as shell necklaces and feathers, cooking pots, but in addition
583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 There used to be a ceremony to which a boy was subjected at
178 or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practise,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

121 Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

177 At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined. [154] In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

852 In an earlier chapter I described a ceremony for children
177 about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second
859 kind of message: that the world of the school begins outside the
177 village boundaries. When the children came back to the village (which was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little
124 different for my interpreter who had been to Martyr's School and who
177 therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-law. In all significant respects, then, he offered little challenge to accepted tradition.

867 Children were trained by their parents in the prevalent system
869 of custom and belief, as modified by recent changes; they maintained their traditional regard for their elders, not regarding their school
177 knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly
602 expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

693 The councillor, the court and the police are only a last resort in
serious quarrels. I saw a councillor enter a dispute once, playing a
627 mediating role between disputants from two villages, but without
playing more than an advisory role. One quarrel was taken to court,
but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the
626 new Garoubi arrivals. She and the husband fought and had to be
separated as the lady had an axe; the domestic dispute soon died down
but the Garoubi woman laid a complaint for slander with the police.
Before this came to court, the wife had been roundly condemned by
almost everyone in the village; she had repented, had gone round the
village to signify her regrets, and been as contrite as her pride
could possibly allow her to be. The court let her off with a reprimand.
The episode, far from suggesting a flagging of Orokaiva traditional
social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
627 Western civilisation, have been quick to see the advantages of a
judicial system providing an impartial arbiter in disputes, to whose
decisions both parties will defer. At the moment, this western
judicial system is an additional resource of Orokaiva law, without
undermining its existing institutions.

CHAPTER X: Esprit de Corps

621 731 The problem of developing group consciousness in a new village, created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepa in 1966, though on a much smaller scale. Sivepa, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garoubi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial [361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garoubi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garoubi. The Binduta arrivals built next to the Garoubi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 In the daily presentations of food between residences, these [431] families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange [578] presentations of one sort or another. I have referred to one conflict between a Garoubi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 684 On the other hand, the hazards were obvious when one looked at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

621 Naturally he was angry that his wife had been molested; his younger
684 brother who was rather fiery and quick to fight, was angrier still.
They both found themselves isolated as the kinsmen of the assaulter took the opportunity of expressing their heart-felt views about the two brothers, especially the pugnacious one who had successfully raped a young Seho woman earlier that year. Both brothers said they would go back to Binduta and the younger man actually did so. This shows that their position in Sivepe was still somewhat unstable.

659 One of the objectives Sivepe had during the year 1966-7 was
621 to win a prize for the most improved village. This prize was awarded
361 by a committee of councillors and paid out of government funds. The eagerness to align all the houses in two rows was partly due to this desire to win the prize, though this was not the only motive. In these circumstances, it was certainly evidence of esprit de corps to fit in with the village plan and the objective of winning the prize; it was also evidence of a lack of esprit de corps to ignore the village plan altogether and build houses of inferior design in places where they were extremely conspicuous. Yet this is what the immigrants from Garoubi and Binduta did. Lawrence, and the others who were keen about village improvement, accepted this situation with much tolerance, though Lawrence did go up to the Garoubi houses one morning to talk it over. No doubt he received assurances that something would be done; the discussion was amicable enough. Yet this instance shows that the amalgamating of villages poses organisational problems which place a burden upon everybody: upon the old residents who must be tactful and upon the new arrivals who will long continue to feel insecure.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepe and Hohorita

My subject of study obliged me, both in Sivepe and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepe, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pejetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[2] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. It was the people who chose the site for the village; the Bishop hoped that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

425 trespassing there. Bishop David recalled, in my interview with him,
657 how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two
[361] miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which
361 several groups set up new villages independently. Today, the population
657 of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Sasembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two
[177] separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the Sangara people had become rather rapidly acculturated. By the criteria used in the present study, acculturation had progressed rather more
[731] rapidly than at Sivepe, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepe: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

731 It was the general hypothesis of this comparative study of ten displaced communities in the Pacific that displacement would lead to
177 accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the relocated community but lacking the experience of relocation. In the
[121] case analysed in the present report, the experience of displacement at Sivepe was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A [See Cat. 116, p. End Map 12--Analyst]

to the pre-eruption village. Furthermore, the control community differed in minor ways from Sivepa both in ecology and in traditional social structure. Certainly this report has pinpointed a number of differences in the acculturation history of Inonda and Sivepa; it has probably been rather less successful in determining whether these differences are due to the displacement experience (and subsequent government and mission initiatives) or to the ecological and cultural differences which existed between the two communities at the time of the eruption, and which were further accentuated when Popondetta became the administrative centre, thus placing Inonda appreciably closer to the centre than Sivepa.

I made a study of Hohorita because I felt it would perhaps provide more cogent evidence. Here resettlement followed a cataclysm during which over 90% of the population died; furthermore, the ecology and culture of Sangara was very close indeed to that of Sivepa. I was struck, during my study of Hohorita, by the evidence of far more rapid acculturational changes than I found at Sivepa. Hohorita, to put it briefly, produced more intellectuals and also more coffee than other communities that had been less afflicted. This seems to suggest I might have done better to take Sivepa and Hohorita as my sample communities, as I would have been able to show more striking differences in spite of greater ecological and cultural similarities. I rejected this idea because my study would then have been methodologically anomalous in the framework of the total project in which the nine other investigators had used a different research strategy.

Nonetheless, the study of Hohorita is of very special anthropological importance as it shows strikingly how a primitive community reacts and adjusts to a cataclysm. The fact that the presence of the Australian government and mission provided the community with some additional adjustment opportunities hardly detracts from the interest of the case. It is impossible to do justice to the subject in this epilogue. Not only would this take too much space, but the time pressure under which this report is compiled also makes it impossible. As Hohorita has a population of 348, the genealogies, lists of educational, occupational, residential data, the statistical evidence of the inter-village relationships are all most complex and will need to be analysed out of 650 pages of field notes. These notes are at present no more than lists of names related to individual families. All I can do here is to give my own preliminary impressions of the material, coupled with general descriptive data. Nonetheless, I hope that I can thus show some of my findings from Sivepa in a broader setting and draw attention to a few basic issues.

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double
Crossing, which is about 600 feet above sea level. Rainfall at the
top of the territory may be close to that of Sivepa, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches
per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepa. Before the eruption, the
concentration of population was entirely at the higher reaches of this
territory, while the lower parts were used for hunting and other
subsidiary activities. Those who survived the eruption because they
were away from their villages were often hunting on this lower land.
Today, the pattern of occupation has shifted. The lower part of the
territory, near the new villages, is intensively used while the more
elevated land is used a little less and often for coffee rather than
subsistence crops.

731 The eruption has made minor changes to land contours: due to
the floods, the watershed of the Ambogo River was gouged out forming a
number of pools of stagnant water which formed a breeding ground
for mosquitoes and leeches. These pests are blamed on the eruption by
the local people. On the credit side, certain varieties of bananas
and pumpkins, planted before the eruption, had the opportunity to
grow wild during the year the land was unoccupied and are now thought
of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
350 live in Hohorita and the rest in the three other villages. The
161 total land holdings of this population extend over 3.5 square miles--
an average of about 135 per square mile. This places the Sangara in
a somewhat superior economic position to Sivepa, which has to support
at least 180 persons per square mile on land of the same quality. It
must be remembered that prior to the eruption, the Sangara population
was six times as large as it is today--so that Sangara must have
suffered a chronic land shortage. All the neighbours of the Sangara
are agreed that they were very warlike and dangerous enemies; they
probably were in frequent need of extra gardening land. Today, they
have enough land not only for subsistence gardening but also for a
somewhat larger cash-cropping programme than is generally found in the
Sasembata district.

621 The present site of Hohorita (see Map XIV) developed in several
361 stages. First the Horeopa clan, which had the greatest number of
survivors and therefore achieved dominance, shifted to the front part
of Hohorita village in 1956. The mission station was established
next to the village, separated from the village by a small stream.
By 1958, all the Horeopa were settled in houses in the new village,
together with the Oripa clan whom they had asked to join them while
all the other inhabitants of Irihambo had shifted to the new mission
A [See Cat. 116, p. End Map 13--Analyst]

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Soubou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they
[764] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Soubou and Kakita and Soubou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Soubou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
[245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any sense of unity. The case of Sangara is somewhat different; first of [199] all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hohorita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [651] district to amalgamate villages. A number of the people now living in Hohorita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hohorita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Sombou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Sombou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hohorita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since the eruption form a rather tight cluster, quite different from the 628 intersecting circle pattern I described for the Sasembata district. When a person in Sombou died, the whole of Hohorita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hohorita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hohorita while Sombou, with the assistance of Kakita, entertained the Uhuru'undi

621 of Hamburata. The Asigi people and the Uhuru'undi, both from lowland
628 Northwest of Hohorita, were traditional enemies of Sangara but a number of marriages took place joining the two places. I was told that before the war, Sangara girls would marry Asigi men but no Sangara man would take an Asigi woman. At the present time, at least three Hohorita men are married to Asigi women. On the other hand, the linkage between Hohorita and Koipa was less one of affinity than of inherited friendships, or feasting partnerships existing between individuals in both villages. I did not observe occasions when Sangara needed to cooperate at all closely with these surrounding population groups, in a common objective comparable to the building of the Sasembata mission station. The relationship seemed confined to traditional ceremonialism. Whatever modern institutions Sangara developed were kept within their
[731] own tribal group. The evacuation camps did not throw Sangara together with other tribes, as they were kept separate in Oro Bay camp. Their warlike past made a mixed camp undesirable; the Isivita people who were also evacuated to the coast were placed a few miles away so that the groups would not fight or bewitch each other. But through feasts such as that in 1966, bonds are gradually being forged.

On the other hand, the evacuation camp did a good deal to lay
731 the foundation for the Sangara tribal unity we find today; it was in
619 the camp that the survivors came to know each other and to make plans for their future. Sombou village, I was told, arose out of talks in
182 the evacuation camp. Other bonds could be traced back to Hartyrs' School where boys, both from the Sangara and other tribes, met together. Some met again at Cape Killerton, after the eruption and so friendships were consolidated which are developing now through inter-village feasts and similar functions. Sangara informants were always insistent on the "modern" nature of such friendship bonds, and on their rarity in pre-war times.

628 I did not observe contacts between Sangara and indigenous office bearers from other districts and other parts of Papua. There were mission teachers and a medical orderly, but these men mostly came from the Sangara district themselves; this was partly because the Sangara district had produced a good supply of such trained people; because Sangara people did not take kindly to accepting the authority of people from other districts; because other Orokaiva were still too scared of the Sangara to be willing to live amongst them and attempt to exert authority over them. The Bishop would always decide, after a few unsuccessful experiments, to send a Sangara teacher or medical to go back from wherever he was and "lead his own people"--an idea which hardly ever appealed to the mission servant concerned. In fact, Hohorita village contains an amazing number of "retired" teachers and medicals who were posted back in this way and who decided the village
● [871] was more comfortable than the mission station. Thus the village contained a disproportionately high number of people with some education. While this gave the village a rather stimulating atmosphere and made nocturnal conversations far more interesting and entertaining than

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

758 759 [653] During the time I was at Hohorita, there was no local medical service because the officer appointed by the Health Department was a Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

653 In Sivepa, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the [731] culture heroes. When I did, in a very innocent way, express my

173 astonishment about this kind of story, I was told in explanation that
731 at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an
178 important aspect of the modern Sangara self-group image. In the eruption,
731 Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces
[595] together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepa, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepa was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial
[764] had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepa, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

184 In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepa. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepa. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

622 At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

622 growing in the village and these were consumed in a big feast 18 months or so after his death. There was much discussion, during these 18 months, as to who should follow Amos as leader; when I left, no decision had been made. He had himself designated the son of his elder brother who died during the eruption, but this man is a government driver, living in Popondetta. The people would prefer a local man for leader, but there is no suitable resident member of Amos' own hae. and in practise it seems that the question of leadership was debated not so much by the people at large but by the men of Amos' hae and Amos' wife's hae--the latter also coming from a prominent Horeopa family. Some leadership roles were meanwhile being carried on by an adoptive half-brother of Amos' wife. This man, a mission teacher who was head of the Hoborita school, and one of my best informants (Harold Heru), was in charge of the preparations for the coconut feast commemorating Amos' death, but he deferred to Amos' brother's son (Michael) on the day of the feast itself, when Michael came over from Popondetta.

622 While these problems over ceremonial leadership were being
623 pondered, it was obvious that for most ordinary day-to-day decisions, the most powerful man in the village was the councillor (Brian Aruha). Brian, though without any formal schooling, was employed by the government as an interpreter in the fifties. His employers formed a high opinion of him and it was probably not without their encouragement that he stood as a candidate for the Higaturu Council and was subsequently chosen by councillors as their chairman. In the view of senior government officials in Popondetta, Brian's knowledge of the history, activities and purposes of the council was unequalled in the district. He did not earn this reputation by craven conformity; indeed, I observed him at council meetings as a doughty opponent of the views of the government's advisory officer, even though he sometimes found himself arguing a strong case in a minority of one, for the other councillors tended to be rather deferential to the advisory officer.

622 Brian's power in Hoborita was much less absolute than Stephen's
554 at Inonda because Hoborita has a far greater number of leading figures. On the other hand, in the judging of disputes and in arranging the land conversion scheme described in earlier chapters, he wielded more power than any single person in Sivepa. In contrast with the Inonda and Sivepa leaders, Brian did not belong to the leading clan (Horeopa) nor to either of the other three well-represented clan groups. His real home was Sombou; at Amos' coconut feast he appeared as the leader of the dominant Sombou clan and in that capacity received gifts in recognition of services which this village had rendered after Amos' death--the traditional services expected from a neighbouring, closely-related village. Thus the power he wielded at Hoborita had the effect of spreading power beyond the dominant Horeopa clan, thus helping in the integration of the different clan groups.

622 Brian was assisted by a "committee" man who also came from one
624 of the smaller clan groups and who had at one time been a medical

622 orderly. This man, like the "committee" in Sivepo, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hoborita pursued ends likewise
474 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
452 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 The composition of this committee was interesting: it did not
452 include the councillor, but consisted of the head teacher at Hoborita, and a priest and a public servant both resident in Popondetta. All three belonged to the Hwreopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmowers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hoborita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hoborita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant [161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and
[597] Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found. Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages [423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

891 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
592 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A [See Cat. 116, p. 228--Analyst]

423 dance in Sasembata. But they enjoy very much better conditions than
591 are usual for men who marry uxorilocally.
582 The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried
731 on at birth in Sivepe are no longer practised in Hohorita. For the
165 rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money
177 was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita
184 people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

621 Though no groups have left Hohorita since it was founded, the
614 co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timunu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

177 In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara
731 than for the rest of the Northern District of Papua. In tracing the
177 causes of culture change in Hohorita, we have to give especial emphasis
[177]

to the helplessness of the survivors, the extraordinarily strong influence that was exerted upon them immediately after the disaster by Bishop Hand (resulting in many becoming mission teachers, the building of a church of especially high quality, scrupulous school-going by the children and other signs of compliance), stronger pressure than usual to succeed in skilled occupations, a more profound reappraisal of ideology under the impact of disaster as well as church influence, and finally the availability of more cash-cropping land than at Sasembata, as a result of depletion of the population.

In Sivepe, where little loss of life occurred, the pattern of changes differs from that in Inonda, but the difference may well be largely explainable by the superior facilities introduced, especially by the mission, into the Sasembata area as a response by the Anglican authorities to the disaster.

The paradox of Papuan culture change is its dependence on migration out of the rural areas. The striking changes of ideology seem to result always from travel and contact between the men who have been away and those who have stayed at home. In the district itself, the progressives are always those with outside experience. In Hohorita, these progressives had more varied and deeper experiences (perhaps because the home base was destroyed) and those who were urbanised continued constant contact with the village. Rural development has opened up some new economic opportunities, and the improvement of school services is opening up further opportunities, but it is only the returning traveller who understands these opportunities and leads his people in realising them. Relocation provides opportunities for village renewal and these opportunities are seized upon by the natural innovators within the villages (the returned migrants) to hasten the coming of the New Day.

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

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TABLE I

CASUALTIES OF THE MOUNT LAMINGTON DISASTER

731 (Source: Department of District Administration, Popondetta, file 7.3.2)

[162] Total residential population, "Sangara" group (2195 - 195)	1964
Known East Side "Ifainembo" casualties	480
Wairope Camp, list of reported casualties	92
Commonwealth Royal Territorial Service, casualty list	90
Prisoners held at Higaturu	16
Royal Papuan Constabulary and dependents IHG	80
Andemba dead (ex Andemba, other villages and Higaturu)	800
Known Isivita dead	14
Est. dead Sangara mission station personnel	100
	3636
Less: Known Sangara survivors	170
Total Estimated Dead	3466

162

TABLE 2

ADULT POPULATION OF MULTI-CLAN VILLAGES
IN THE SAIHO CENSUS DIVISION, 1966

According to census records in the Department of District Administration, Popondetta. Adult = over 16 approximately.

Village Name	Male	Female
Agenahambo	49	64
Awala	101	136
Garoubi	76	56
Hamburata	55	36
Hohorita	193	155
Isoge	66	55
Kendata	196	158
Kiorota	225	204
Mumuni	138	125
Sasembata	77	70
Yingi	70	66
Sivepa	69	55
Torogota	95	51
Total adult population of division	2573	2065

Notes:

1. The total population of the division, including children, was 8,211.

2. Many persons normally resident in hamlets attended the census enumerations in the main villages, which were not as populous as these figures might suggest. My own data for Sivepa adults show: 28 males, 35 females.

22: Schlemmer E-4,5 (1966-1967) 1969 0123 Orobaiva 0123 Mount Lamington

TABLE 3

MONTHLY RAINFALL FOR AWALA, 1955-62 (INCHES)*

Source: Rimoldi, 1966: 109

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1955	21.48	12.15	17.71	5.51	11.47	2.55	7.17	7.26	16.91	5.50	18.33	19.03	145.07
1956	14.16	13.85	6.22	12.76	3.92	2.41	10.27	4.76	11.45	8.42	16.17	20.61	125.00
1957	9.08	11.36	34.80	19.05	10.55	8.29	4.85	11.55	12.12	8.88	24.03	27.14	181.70
1958	24.90	18.27	23.11	17.59	6.51	13.06	4.14	8.53	22.30	15.86	8.52	23.45	186.24
1959	11.32	24.58	8.17	23.30	15.11	14.22	11.56	2.63	11.60	5.64	12.21	21.65	161.99
1960	25.67	22.70	11.41	17.10	11.29	13.62	4.29	8.69	11.67	15.26	19.35	18.64	179.69
1961	23.06	9.46	9.84	10.02	10.94	12.72	10.14	11.80	11.66	11.21	13.78	10.20	144.83
1962	4.54	23.89	13.60	11.72	17.51	9.65	10.92	10.20	8.29	13.84	9.35	26.33	159.84
Av.	16.77	17.03	15.61	14.63	10.91	9.97	7.92	8.18	13.25	10.58	15.22	20.88	160.55

DAYS WHEN RAIN FELL

1955	24	19	19	19	19	8	18	17	17	12	24	23	219
1956	19	23	20	23	11	11	15	19	21	21	18	20	221
1957	20	17	26	21	13	9	21	18	18	17	18	21	219
1958	22	19	27	25	13	22	13	13	21	19	18	28	240
1959	21	25	22	25	20	24	18	12	18	14	21	23	243
1960	25	25	23	23	14	18	8	18	11	22	21	23	231
1961	25	16	22	21	22	17	11	17	13	18	20	24	226
1962	12	21	19	20	16	11	8	10	8	16	10	25	176
Av.	21	21	22	22	16	15	14	15	16	17	19	24	222

*Figures supplied by Mr. C. E. Searle. Awala lies three miles northeast of Sivepa.

TABLE 4

MONTHLY RAINFALL FOR POPONDETTA 1955-61 (INCHES)

Source: Grocombe and Hogbin 1963: 100

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1955	7.58	12.05	2.11	7.88	12.65	6.13	2.67	1.85	6.55	4.90	19.78	10.26	94.41
1956	8.31	8.15	5.56	6.70	1.16	2.08	2.10	3.23	5.74	5.94	9.23	14.42	72.02
1957	7.41	4.04	17.40	7.60	4.33	2.95	1.91	3.90	5.50	10.60	7.14	16.82	89.60
1958	18.99	4.24	14.04	11.79	4.77	6.46	2.11	1.98	5.86	10.10	10.62	12.57	103.53
1959	8.98	16.32	9.82	17.09	8.29	6.61	3.84	0.78	8.08	4.64	9.89	12.98	102.32
1960	13.01	10.63	11.57	12.30	3.41	4.87	2.61	8.70	3.26	8.79	12.76	10.66	102.51
1961	20.34	7.20	7.04	14.80	7.12	8.25	3.50	2.27	5.93	11.79	6.30	14.64	109.18
Av.	12.09	8.95	9.64	11.17	5.96	5.34	2.68	3.24	5.85	8.11	10.82	13.19	96.22

NUMBER OF WET DAYS PER MONTH FOR POPONDETTA 1955-61

1955	14	14	10	16	15	19	10	4	13	8	21	17	163
1956	18	18	13	27	8	22	12	12	9	10	12	11	172
1957	11	13	21	25	13	16	7	12	14	13	17	21	183
1958	21	16	24	21	16	16	12	9	13	20	22	26	216
1959	16	24	16	24	16	18	13	6	13	10	25	21	202
1960	27	22	21	19	16	10	7	15	10	24	21	18	210
1961	29	17	20	18	22	8	18	14	15	16	16	18	211
Av.	19.4	17.7	17.9	21.4	15.1	15.6	11.3	10.3	12.4	14.4	19.1	18.9	193

Note: Popondetta lies 11 miles west of Inonda.

22: Schwimmer E-4,5 (1966-1967) 1969 0023 Orokaiva 0023 Mount Lamington

22: Schwimmer E-4.5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

TABLE 5

MEAN TIME SPENT PER MAN-WEEK ON
SUBSISTENCE ACTIVITIES IN SEASONAL VARIATIONS
IN SIVEPZ, 1964

Source: Eric Waddell, manuscript

Activity	Periods			
	I: 3 Feb - 3 May	II: 20 Jul - 6 Sept	III: 9 Nov - 3 Jan 1965	Total
Clearing	4.4	2.4	3.3	3.7
Taro: Planting	1.9	2.8	3.0	2.4
Maintenance	3.0	3.9	4.5	3.6
Harvesting	3.4	1.9	3.0	3.0
Marketing	0.1	-	-	0.1
Sweet Potato: Planting	-	-	0.1	-
Harvesting	0.7	1.1	2.4	1.3
Marketing	0.1	-	-	0.1
Yam: Planting	0.6	-	-	0.3
Maintenance	-	-	0.2	0.1
Harvesting	0.8	0.1	0.6	0.6

221
461

TABLE 5
(Continued)

Minor Crops:	Planting	-	0.1	0.1	0.1
	Maintenance	-	-	0.1	-
	Harvesting	1.0	3.4	1.1	1.6
	Marketing	0.1	-	0.3	0.1
Fencing		-	-	0.2	0.1
Fishing		0.2	-	0.5	0.2
Hunting		0.7	0.8	4.8	1.8
Sago-making		-	1.5	0.4	0.4
Preparation of Tools and Equipment		0.3	-	0.5	0.3
Construction		2.2	1.6	0.6	1.6
TOTAL		19.7	19.8	25.8	21.3

461
221

TABLE 6

NORTHERN DISTRICT: POPULATION 1966 211

162

Source: Department of District Administration, Popondetta

POPONDETTA SUB DISTRICT

APORE

Musa	2509	
Managalasa	5550 ...	8059

IOMA

Aiga	2384	
Binandere	3693	
Waria	1717 ...	7794

POPONDETTA

North Coast	4660	
Soha - Popondetta ...	3588	
Popondetta	3533	
Oro Bay	5181	
Saiho	8211 ...	25173

TOWN

Locals	900 (approx)	
Europeans	300	

RURAL

Locals	800 (approx)	
Europeans	260 ...	2260
TOTAL		43,286

TUFI SUB DISTRICT

Cape Nelson	3642	
Collingwood Bay ...	2936	
Dyke Ackland Bay ...	1724	
Europeans	20 ...	8322

KOKODA SUB DISTRICT

Kokoda	2018	
Bujara	1193	
Wanunga	1227	
Europeans	30 ...	6470
TOTAL		58,078

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

TABLE 7

FOOD PLANTS PER HOUSEHOLD: INONDA AND SIVEPE COMPARED

Sources: Crocombe and Hogbin, 1963: 8; Rimoldi, 1966: 17

Crop	Inonda		Sivepe	
	Average	Range	Average	Range
Taro (Colocasia sp.)	1.3 acs.	2.6 - 0.4 acs.	0.97 acs.	0.39 - 2.30 acs.
Sweet Potato	0.2 acs.	0.4 - 0 acs.	0.07 acs.	0 - 0.20 acs.
Corn	72 plants	140 - 0 plants	223 plants	0 - 442 plants
Bananas	81 trees	145 - 12 trees	71 trees	35 - 126 trees
Pitpit (ing)	56 clumps	181 - 4 clumps	88 clumps	0 - 400 clumps
Sugar	71 clumps	167 - 34 clumps	34 stools	11-54 stools
Yams	24 vines	61 - 0 vines	65 vines	0 - 136 vines
Manioc	10 plants	27 - 4 plants	a few	
Taro (Xantosoma sp.)	5 plants	25 - 0 plants	28 plants	0 - 91 plants
Native Cabbage	---	---	22 plants	0 - 100 plants
Pawpaw	---	---	17 trees	5 - 32 trees
Beans	a few		17 plants	0 - 110 plants
Cucurbits	2 vines	10 - 0 vines	13 vines	9 - 28 vines
Saallots	a few		a few	
Ginger	---	---	a few	
Tobacco	---	---	18 plants	0 - 59 plants
Pineapples	1 plant	7 - 0 plants	no data	
Tomatoes	a few	---	no data	

241
311

461
512

TABLE 8

ACTIVITY PATTERNS OF HOUSEHOLDS
IN SIVEPE AND INONDA
(In Hours Per Man-Week)

Source: Waddell and Krinks, 1968: 97 and 132

Note: As virtually all Sivepe households were involved in cash-cropping by 1966-1967, the figures quoted here for Sivepe show the mean activity pattern for cash-cropping households.

Activity	Mean Number of Hours Per Adult Per Week	
	Sivepe	Inonda
Clearing	3.3	2.9
Subsistence Gardening	13.2	11.7
Other Subsistence Food Production	3.0	7.5
Other Subsistence Activities	1.4	3.4
Cash Cropping	2.3	1.0
Paid Work	1.0	2.7
Household	6.1	3.8
Social Obligations	3.3	4.2
Sick	1.0	1.6
External Agencies	7.0	3.2
Other	0.9	1.5
TOTAL	42.3	43.5

TABLE 9

CONSANGUINEAL LINKAGES BETWEEN 51
SIVEPE INFORMANTS AND OTHER VILLAGES,
CLASSIFIED BY DEGREE OF NETWORK DENSITY

Principle of Classification: Villages are classified according to the number of informants who have kindred (no more than two degrees removed) originating there. Thus Class A comprises those villages mentioned by one (and no more than one) informant as the birthplace of members of his/her kindred. Class B comprises villages so mentioned by two (and no more than two) informants, Class C between 3 and 5, Class D between 6 and 10. Class E comprises those villages mentioned by more than 10 informants as the birthplace of members of their kindreds. When I speak of "one consanguineal linkage between one informant and another village," I leave out of account how many of my informant's consanguines were born in that other village--it might be one or several dozen.

Density of Network By Classes	Number of Villages In Each Class	Number of Consanguineal Linkages Between Informants and Other Villages
Class A	36	36
Class B	11	22
Class C	19	74
Class D	5	40
Class E	5	61
TOTAL	76	233

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

629
166

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahembo (pre-war)	2. Pamba (between war and eruption)	3. Old Sivepa (after eruption, until 1965)	4. New Sivepa (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

342
351
364
514
343
198

22: Schwimmer E-4,5 (1966-1967) 1969 QU23 Orokaiva QU23
Mount Lamington

TABLE 11

164 HOSPITAL ADMISSIONS IN ST. MARGARET'S (ANGLICAN) HOSPITAL AT ERORO; NORTHERN DISTRICT, OVER 1966

Tropical Ulcer	21
Infected Wounds	949
Yaws	4
Injuries	129
Malaria	427
Asthma	24
Bronchitis	437
Influenza	3
Dental Caries	10
Intestinal Infections	73
Eyes	26
Ears	111
Filiariasis	40
Pyrexia Unknown Origin	759
TOTAL	2,941

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	A. Personal Emolument	
1000 females	1,000	Council President	$ 156
Truck hire	13,000	Council Vice-President	108
Aid Post Orderlies Subsidy	1,250	Councillors	1,560
Water Supply Subsidy	3,320	Exec., Fin. Ctee	108
Aid Post Subsidy	240	Council Clerk	1,170
Adult Education Subsidy	780	Messenger	390
Miscellaneous	2,900	Landrover Driver	500
TOTAL	$38,490	Truck Drivers	1,450
		Agric. Fieldworker	234
		Market Manager	260
		Aid Post Orderlies	2,500
		Health Worker	256
		TOTAL	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,685
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

465
657
652
434
651

744

TABLE 13

TOTAL EXPENDITURE ON PUBLIC HEALTH
IN THE TERRITORY OF PAPUA DURING THE
YEAR ENDED 30TH JUNE 1965

(Source: Territory of Papua Report for 1964-1965: 235)

Administration	$	$
Public Health - General	2,902,012	
Medical Aid to Missions	94,698	
Maintenance of Hospitals, Engineering, Water Supply and Sewerage	320,988	
[364] Construction of Water Supply, Sewerage, Hospitals and Ancillary Buildings	1,098,416	
Building Grants-in-Aid to Missions	31,220	
Purchase of Hospital and Medical Equipment	81,730	
	---	4,529,064
Missions (Ascertainable Expenditure from their Own Funds)		90,012
Local Government Councils (From their Own Funds)		44,108
TOTAL		4,663,194

TABLE 14

ENROLLMENT IN PRIMARY SCHOOLS OF THE
ANGLICAN MISSION IN THE NORTHERN DISTRICT

871
872

Source: Department of Education, Popondetta

	1966	1967 (Est.)
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
TOTAL	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

TABLE 15

HOUSEHOLD COMPOSITION; SIVEPE AND INONDA COMPARED

592
594
596

Note: The term "augmented," applied to a household, denotes that the household includes adults outside the nuclear (or extended) family, but that these adults are living without a spouse.

Household Type	Inonda	Sivepe
1 Generation	1	3
Nuclear	2	12
Augmented Nuclear	-	2
Double Nuclear	2	-
Simple 3-Generation	1	4
Augmented 3-Generation	1	3
TOTAL	7	24

TABLE 16

POPULATION BY AGE, SEX, MARITAL STATUS AND CLAN

(a) Comparison Between Inconda and Sivepa, 1951 and 1966

	Inconda		Sivepa				
	1966	1951	1966				1951
			Sorovi	Seho	Jegase	Total	
Male Adults (Total)	10	5	6	8	14	28	15
Widowers	2		1	-	2	3	
Married, residing wit. wife	7		5	7	8	20	
Single	1		-	1	4	5	
Female Adults	10	8	5	11	18	34	25
Widows	2		-	1	3	4	
Married, residing with husband	7		5	7	8	20	
Single or living without husband	1		-	3	7	10	
Children	22	35	15	27	33	75	59
TOTAL	42	48	26	46		137	99

(b) Sivepa male adults, by clans and age groups

Age Groups	Sorovi	Seho	Jegase	Total
16 - 25	-	1	3	4
26 - 35	2	-	2	4

162

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

TABLE 16
(Continued)

Age Groups (Continued)	Sorovi	Seho	Jegase	Total
36 - 45	2	2	4	8
46 - 55	1	5	1	7
Over 55	1	-	4	5
TOTAL	6	8	14	28

Note: For the purpose of this table, I have included entire households with the clan of the household heads. The breakdown of female population into clans must be understood as meaning: "Attached to a household of Sorovi, Seho or Jegase clan.:

162

TABLE 17

SIVEPE: THE ALLOCATION OF TIME WITHIN ACTIVITIES
A DETAILED ANALYSIS OF 28 OCCASIONS COVERING 19 INDIVIDUALS AND
A BREAKDOWN ACCORDING TO AGE; SEX AND CASH CROPPING STATUS
(In minutes)

Source: Waddell and Krinks 1968: 113

		Travel	Rest and Meals	Main Task	Ancillary Tasks	Other Tasks	Cooking	Washing	Total
Whole Sample	Mean Duration	42	72	102	15	14	17	3	264
(28)*	%	15.8	27.4	38.5	5.7	5.1	6.3	1.2	100
Males	Mean Duration	41	74	118	26	12	-	-	272
(14)	%	15.1	27.4	43.5	9.5	4.3	-	0.1	99.9
Females	Mean Duration	42	70	85	4	15	33	6	257
(14)	%	16.5	27.4	33.2	1.6	5.9	13.0	2.4	100
Cash Cropper	Mean Duration	32	36	106	14	16	5	2	210
(16)	%	15.1	17.0	50.6	6.5	7.8	2.3	0.8	100.1
Non Cash Cropper	Mean Duration	55	121	96	17	10	33	6	336
(12)	%	16.4	36.0	28.4	5.0	2.9	9.7	1.6	100
15-24	Mean Duration	21	181	49	12	-	126	28	418
(2)	%	5.0	43.5	11.7	2.9	-	30.2	6.8	100.1
25-34	Mean Duration	24	29	101	1	12	10	3	179
(8)	%	13.4	16.1	56.3	0.6	6.6	5.3	1.7	100

TABLE 17
(Continued)

		Travel	Rest and Meals	Main Task	Ancillary Tasks	Other Tasks	Cooking	Washing	Total
35-44	Mean Duration	33	53	132	36	1	6	-	259
(8)	%	12.6	20.3	50.7	13.8	-	2.2	-	99.6
45-54	Mean Duration	72	69	99	10	31	10	1	292
(9)	%	24.5	23.6	34.0	3.5	10.6	3.6	-	99.8
55+	Mean Duration	30	390	-	10	-	-	-	430
(1)	%	7.0	96.7	-	2.3	-	---	-	100

* Indicates number of man-instances observed.

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

461
561
512

TABLE 18

SIVEPE: THE DIVISION OF LABOUR BY AGE
(In Hours Per Week)

Source: Waddell and Krinks 1968: 104

Age Group	15-24	25-34	35-44	45-54	55+
No. of Individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total Weeks Present	105.9	138.0	115.3	252.6	51.1
SUBSISTENCE					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	14.9	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.6
Household	3.7	8.7	2.9	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	2.9	1.8
EXTERNAL					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	0.9	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.8	0.2	-
TOTAL	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.7	78.1	80.9
Subsistence time*	55.4	73.8	74.1	78.4	87.3
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

462

TABLE 19

DIVISION OF LABOUR BETWEEN THE SEXES AMONG THE OROKAIVA IN 1923

Source: F. E. Williams Papers W.5, dated Wasida 5.10.23

Women

Planting and small cleaning in Garden
Fishing for small fish
Cooking
Cleaning house and surroundings
Pottery
Bark cloth and painting of same
Look after pigs and dogs
String bags
Mourning vests of Job's tears
Mourning neck ornaments, of Job's tears
Armlets of Job's tears
Make shell and string belts

Men

Clearing of gardens
Hunting
Large fishing
Building
Make spears
Make clubs
Make cane belts
Make woven armlets and leglets
Make shell and string belts
Make wooden bowls

462 Day's work of woman

512 (Ejiro of Borugata)
Sometimes in garden . . . sometimes in village . . . but more often than not goes to the garden
Going in the morning she will clean . . . plant. . . dig up taro . . .
In afternoon she collects firewood . . . water (in a gourd, scooping it in with a folded leaf), . . . taro etc. in her string bag (eti) and return "at four o'clock".
Then she cooks for husband and children . . . after that kaikais betel and stops nothing

TABLE 20

871
463

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED--ADULT MALES ONLY

Approximate Period	Education Seho	Education Jegase	Occupational Experience Seho	Occupational Experience Jegase
Nil	6	6	4	5
1 year	-	1	1	2
2 years	-	2	1	-
3 years	-	1	-	-
4 years	-	2	-	2
5 years	-	-	-	1
6 years	-	1	-	-
7 years			-	-
8 years			-	-
Over 8 years			-	4
Date vague	2	1	2	-
TOTAL	8	14	8	14

463

TABLE 21

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

Occupation	Resident	Non-Resident	Total
Teacher	9	1	10
"Medical"	3	-	3
Driver	2	2	4
Shopkeeper	4	-	4
Other	2	2	4
TOTAL	20	5	25

Appendix

121 Outline of variables influencing change and stability.

I. External influences

A. Circumstances contributing to the decision to relocate.

1. Initiating conditions--land shortage, volcanic eruption, drought, factionalism, isolation, economic depression (as in 1930's and post-war), etc.

2. Source of suggestion to relocate--government, native leaders, example of other communities which have been relocated, etc.

3. The decision to relocate.

a. The participants--total community, native council, individual families, etc.

b. The procedure--presentation of the argument for removal, advance inspection of new location, voting, emergency evacuation, etc.

c. Attitudes toward the necessity of relocating--differences, if any, between individuals or classes such as men, women, young, old, leaders, government officials, educated, prosperous, differences at time of removal and later, between early and later emigrants, etc.

B. Physical environments

1. Climate-effects of temperature, storms, seasonal fluctuations, etc. on clothing, housing, subsistence activities, outside contacts, etc.

2. Topography--effects of size, relief, beach area, streams, water table, reefs, etc. on village ground plan, paths, roads, location of farm land, groves, internal communication, subsistence activities, etc.

3. Resources--availability and exploitation of local products for food, construction or commercial purposes.

4. Location with respect to other islands--effects on visiting, wage labor, canoe construction, commercial development, acculturation, etc.

121 C. Social environments.

1. Opportunity for contacts (both before and after relocation) with individuals who do not belong to the community.

   a. Identity of the outsiders--Australians, Americans, British, French.

   b. Status and role of outsiders--administrators, missionaries, other natives, ships' crews, armed forces, tourists, employers, traders, guests at celebrations, etc.

   c. Differential opportunities--young, old, men, women, chiefs, officials, spokesmen, etc. (e.g., do women of the community have opportunity to meet British women or British men; do only leaders of the community have appreciable contact with outsiders, etc.?)

2. Actual amount and kind of contact by young, old, women, etc.--daily, periodically, planned, casual, incidental, impersonal, commercial, social, etc.

   a. Intermarriage--rights and obligations with respect to affinal kinsmen, economic cooperation, etc.

   b. Friendships with outsiders.

3. Locale of contacts--within the village or outside it.

4. The initiators of contacts--village members or outsiders.

5. Differential reactions to categories of outsiders--Americans vs. British, Europeans vs. indigenous neighbors, traders vs. guests, etc.

6. Attitudes toward neighbors--superior, suspicious, hostile, aloof, critical.

7. Attitudes of neighbors toward them--hospitable, indifferent, resentful, contemptuous, etc.

8. Self-group image--misunderstood, mistreated, unlucky, indomitable, leaders, pioneers, representatives of their people, failures, etc.

121

9. Acculturation--learning new skills from contacts, adopting outsiders' customs, accepting alien foods, becoming involved socially or ceremonially with outsiders through intermarriage, employment, entertainment, accepting favors, etc.

10. Impact on community organization with respect to:

   a. Leadership.

   b. Interpersonal relations, including those among kinsmen.

   c. Work groups, including labor for village benefit.

   d. Social and recreational groups, and the occasions when they function.

   e. Religious activities.

   f. Cooperatives and other commercial enterprises.

   g. Individualism and independence of primary kinship groups.

   h. Expedients and temporary procedures and patterns of behavior.

D. Contacts with congeners, of which there are three categories: 1. Contacts before relocation (such as Gilbertese and Ellice Islanders living and working together on Ocean Island, Tarawa, and Canton). 2. The relocated community maintaining contact with homeland (such as the Kioans and their friends and relatives on Vaitupu). 3. Two relocated communities in communication (such as Sydney and Gardner or Kioa and Rambi).

1. Kind and frequency of contact--visiting, correspondence, returnees to homeland, new immigrants, joining relocated community, celebrations, reciprocal exchanges, schooling of children, etc.

2. Encouragement of contacts or the lack of it.

   a. Government policy.

   b. By community leaders at home and in relocated community.

[p. 231]

121

3. Congener contact and morale of relocated community--homesickness, insistence upon maintaining identification with homeland and its customs, severance with traditions of the past, pride as pioneers, dissatisfaction or self justification resulting from comparison with others, fear of losing land and other rights and privileges at home, etc.

E. Disease

1. The community as a carrier of disease.

2. The community as a victim of unfamiliar disease.

3. The community's perception of new location as healthy or unhealthy.

F. Government welfare efforts. In all instances attempt to determine extent of government efforts to a) adapt measures to traditions of community, b) plan measures in consultation with community leaders and c) whether an action, a procedure, or an innovation was proposed by a government official or by a member of the community.

1. Relocation plans and their implementation.

a. Reasons for choosing the site for relocation.

b. Relocation procedure--reconnaissance party, resettlement officer, advance work party, "waves" of immigrants, assistance in construction of village, initial living arrangement for settlers, etc.

c. Relation of settlers to homeland--renounce land rights, foreclosure of possibility of return, other persons or groups permitted to occupy vacated lands, payment for expropriated homeland, income from produce of homeland (e.g., phosphate), etc.

d. Traditional value placed on land ownership--basis of social control and prestige, secondary to use rights, fishing rights, and other forms of property, etc.

e. Land tenure in new location--government policy, communal lands, individual ownership, system of allocation (e.g., by drawing lots, by priorities, by individual choice), size of plots, the unit of allocation (e.g., individual, family, or clan), land survey, temporary or permanent assignment, use right or ownership, etc.

121

f. Duration of relocation (i.e., does this variable affect adjustment?)

g. Number of relocations.

h. Actual or alleged governmental encouragement of hopes to 1) return to homeland or 2) relocate a second or third time.

2. Health measures.

a. Provision of dispensaries, hospital service, medical aides, drugs, etc.

b. Public health programs--mosquito control, innoculations, latrines, sanitation regulations, etc.

3. Economic assistance.

a. Subsistence--issue of cuttings and seeds, advice and demonstration by government agricultural and fishing experts, etc.

b. Issues of food in initial or other stages of the community's development.

c. Advice and assistance in commercial enterprises--rewards for land clearing, subsidy of cooperatives, provision of transportation for copra, logs, purchase of products, price stabilization funds, abeyance or imposition of land or head tax, import or export duties, etc.

4. Education.

a. Extent available--in or out of village, boarding schools, both sexes, etc.

b. Extent required--e.g., compulsory, age requirements, standardization of curriculum, etc.

c. Sponsorship--government or church.

d. Teachers--source of pay, training of, ethnic affiliation of, family status of, language of instruction, etc.

121

e. Provision of school buildings, educational materials.

f. Attitudes toward government.

G. Mission welfare efforts--consider all items above (under "Government welfare efforts") that are relevant.

1. Others--including recreation, community projects (e.g., house improvement, health campaigns), teacher-preacher combination, ethnic identity of pastors, religious affiliation of pastor, change in religious affiliation with relocation, pastor's identification with community, community support (material and otherwise) of the pastor.

H. Selection of emigrants.

1. Non-selection, i.e., all members of the community relocated.

2. By government--regulation of removal by establishment of quotas and priorities by such criteria as age, family connections, status, skills, labor potential, health, amount of land available at new location, poverty at home, etc.

3. Self-selection, i.e., community members individually or collectively decide who is to relocate (Examples: Kioma, Catholic families on Giso moved to Loga).

a. Reasons--join kinsmen, support aged family members, join co-religionists, factionalism, etc.

4. Piecemeal vs. total removal at one time--effect on family and community solidarity, cooperation, leadership, morale, mutual assistance, subsistence potential, manpower available, etc.

II. Internal influences

A. Size and distribution of relocated community--concentrated in one village, segmented in two or more hamlets or villages, dispersed on individual homesteads.

1. Attitudes toward maintaining (a) concentration, (b) separation from neighbors.

12 B. Socio-economic factors--age, sex, marital status, divisions of labor, money income, occupational skills, available manpower, eligible mates, dependents, education, etc. of community members.

C. Homogeneity or heterogeneity in background of community members--all from one village originally, or from one island, or from one region (e.g., Kioa and Kili vs. Sydney and Gizo communities). Differences with respect to dialect, traditional histories, affiliation with groups not represented in community, etc.

D. Degree of acculturation at time of relocation--missionization, government regulation, abandonment of indigenous customs (i.e., those antedating contact with Europeans and Americans), adoption of foreign dress, foods, house types, etc., wage labor, use of money, formal education, bilingualism, etc.

E. Familiarity with new homeland at time of relocation--limited to reconnaissance by community representatives (e.g., Kili, Sydney, Gizo), known from visits prior to time issue of removal arises (e.g., Pauna and Epi), known by tradition or hearsay (e.g., Rongerik).

F. Addition and loss of members--births, deaths, intermarriages, adoptions, friendships, repatriations, continuing immigration, community segmentation, residence in urban centers or on plantations, etc.

1. Reasons, when relevant, e.g., desire to reunite divided families, securing heirs, joining adherents of same religious faith, government policy and regulation, land shortage, labor opportunities elsewhere, schooling outside of village, etc.

G. Key personalities within the community; i.e., individuals who have had a significant influence on the course of events in the community's history.

1. Non-native as well as native residents of the community--resettlement officers, advisors (e.g., Kennedy, Laxton)

2. Other native residents as well as community members--teachers, pastors, policemen, spouses, etc.

3. Social isolates, marginal individuals, "loners", "trouble makers", etc.

121 H. Factionalism--religious, political, ethnic, generational, acculturational, etc.

I. Adherence to tradition.

1. Actual vs. alleged--optional observance of customary patterns of behavior, informants' description vs. anthropologist's observations, rationalizations for deviations from traditional norms (e.g., "it is temporary," "we can't get what we need," "young people don't care," "it is too much trouble").

2. Controls operating for and against continuance of tradition--training of young people, regard for elders, fulfillment of reciprocal obligations to kinsmen and community, sensitivity to opinions of friends and relatives at home, ease of escape from community obligations, formal mechanisms for reward and penalization (councils, police, courts, committees).

J. Esprit de corps.

For what is intended under this caption refer to Ralph Linton's Study of Man, pages 92-94.

[p. 236]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

102
131
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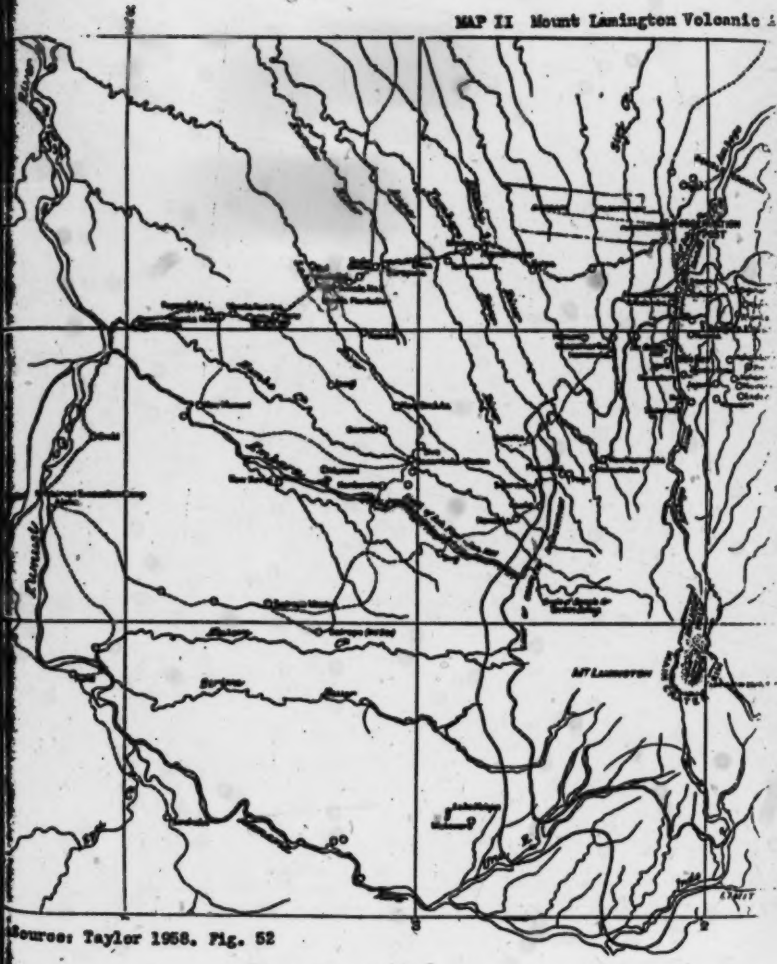
731

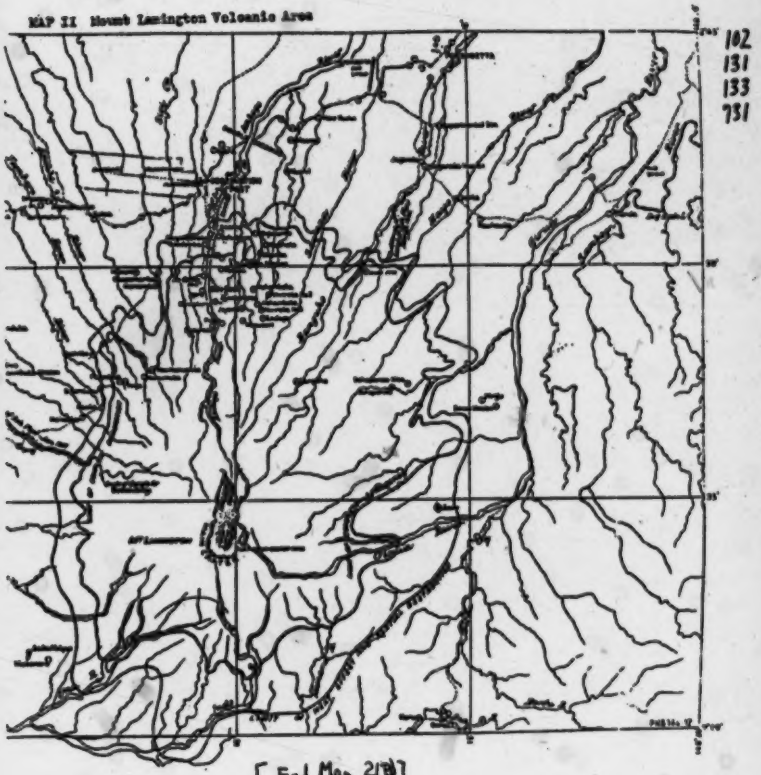
MAP II Mount Lamington Volcanic A



Source: Taylor 1958. Fig. 52

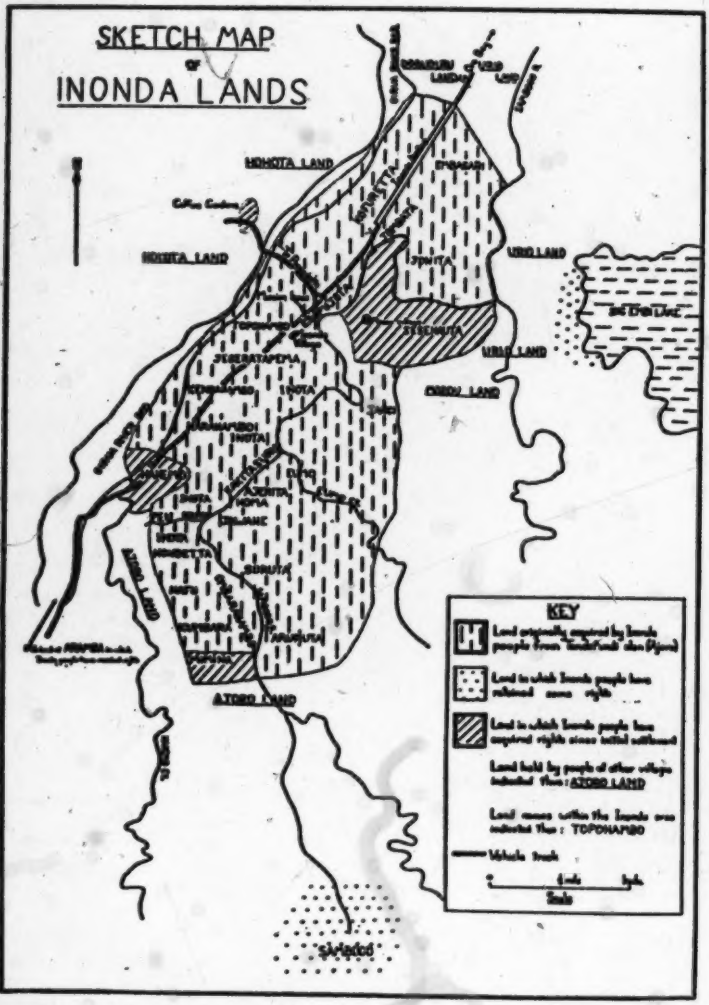
[End Map 2(A)]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington



[End Map 2(B)]

MAP IV

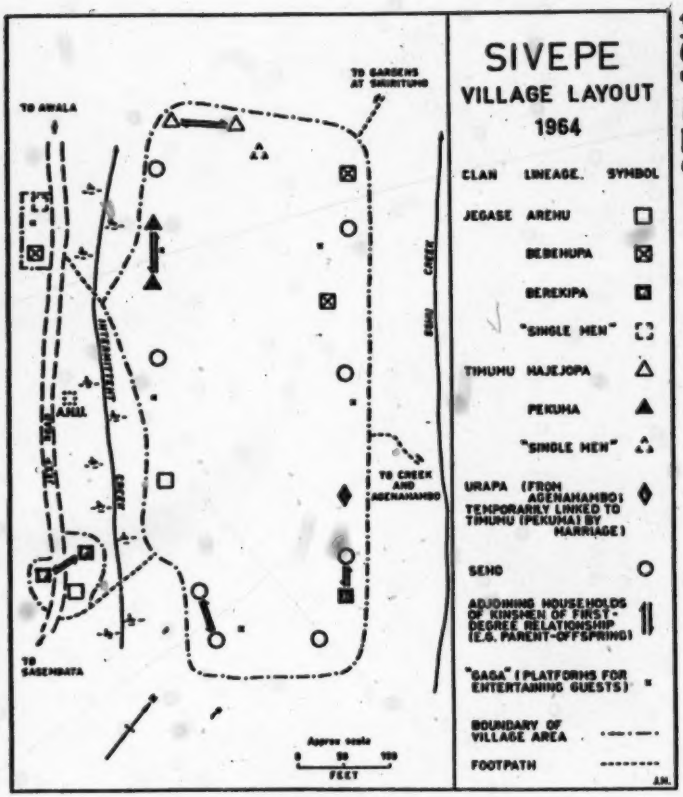


102
423
491
133
361

Source: Crocombe & Hogbin 1963 : 105

Fig. 1 M. 17

Map V



361
621
489
102
133
491

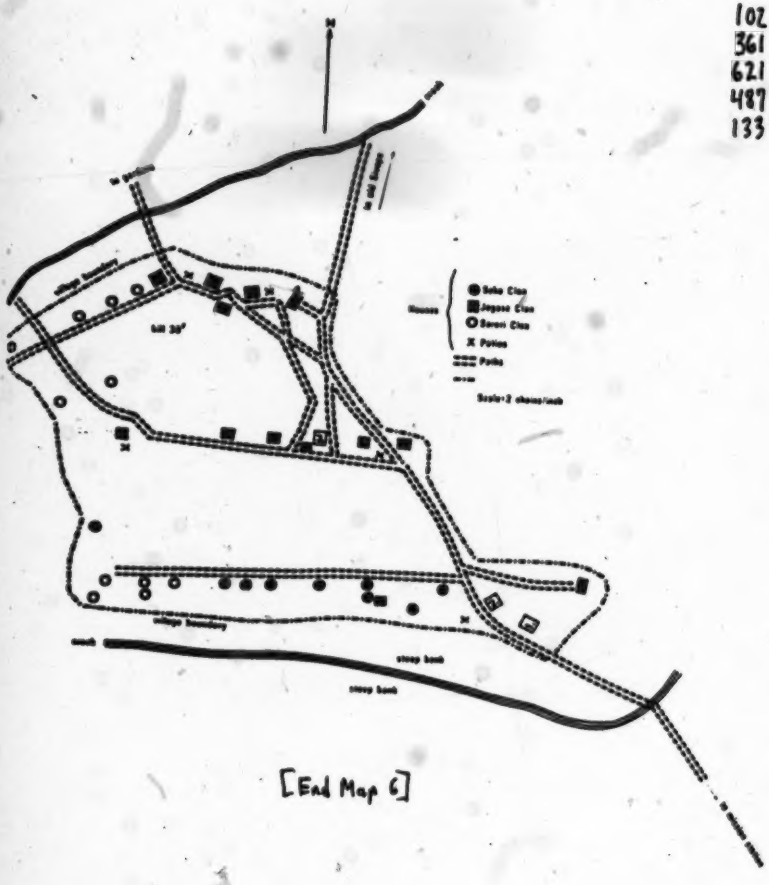
Source: Waddell & Krinks 1968: 38

[End Map 5]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map VI
Plan of New Sivepo

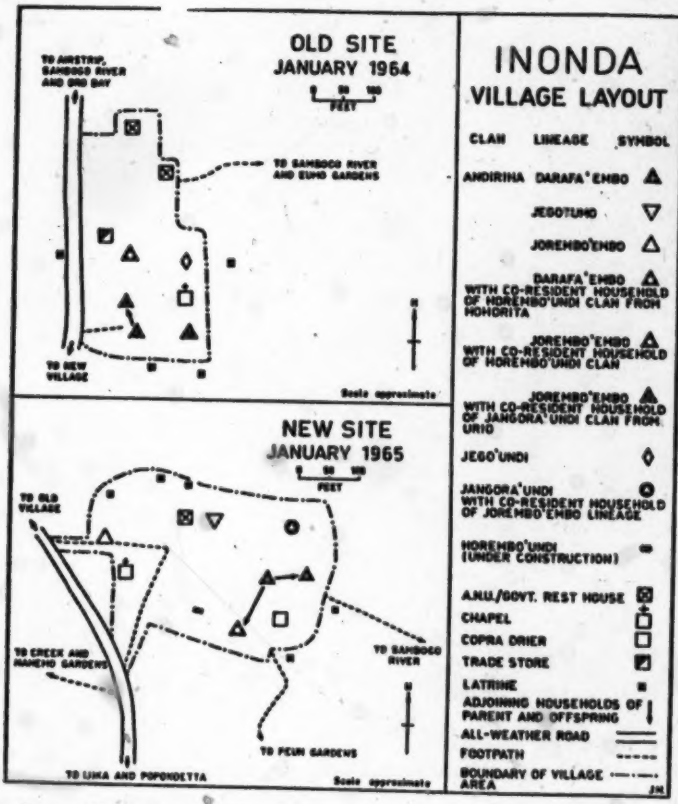
102
361
621
487
133



[End Map 6]

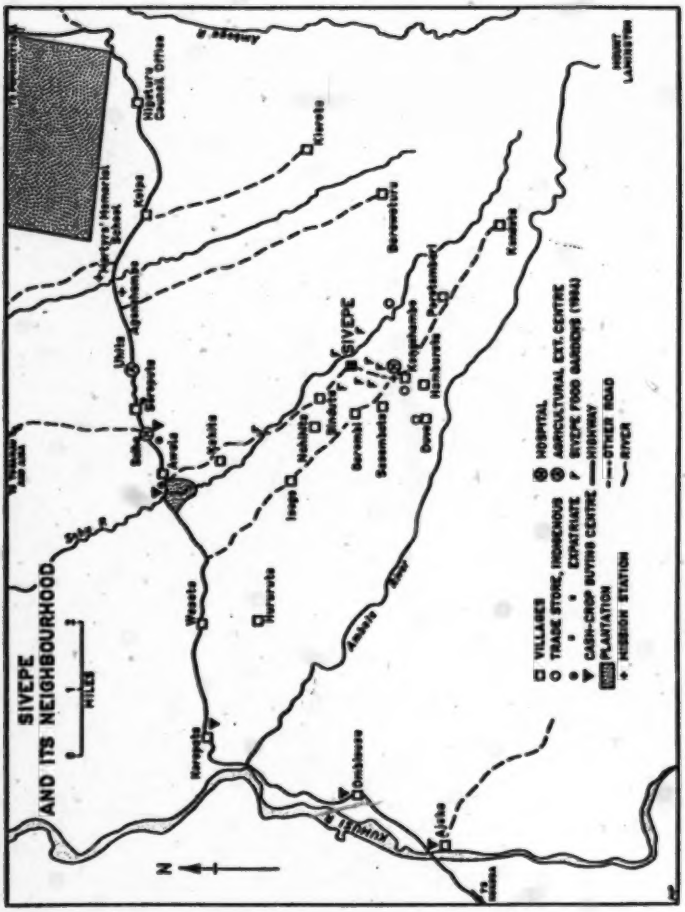
102
361
621
491
487
364

Maps VII and VIII



Source: Waddell & Krinks 1968: 54

[End Map 7]



Map II

Source: Waddell & Krinks 1968: 34

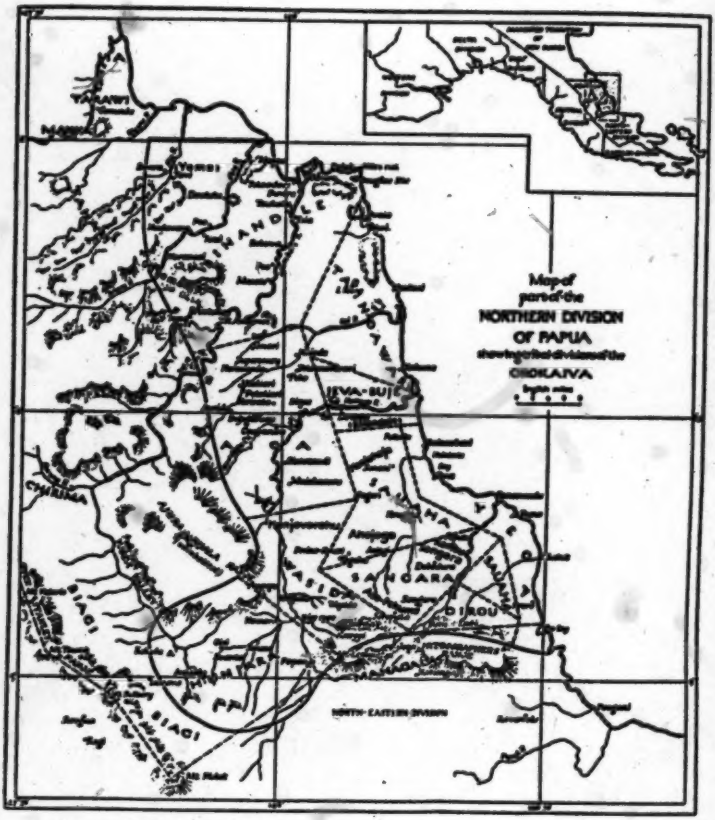
[End Map 8]

102
131
133
366
368
491
487

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map X

619
102
133
131



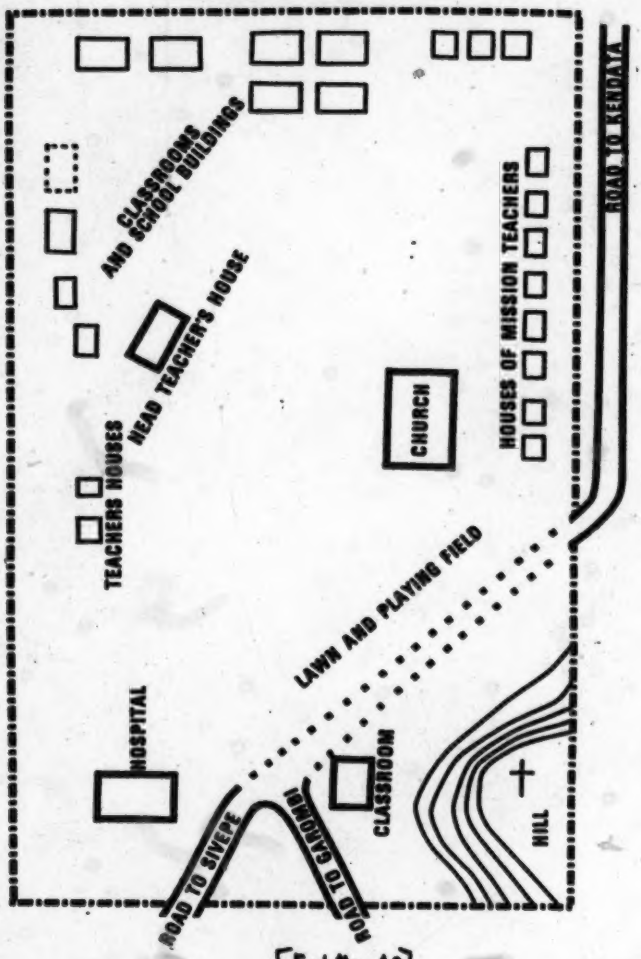
Source: Williams 1930

[End Map 9]

Map XI

368
797
491
102

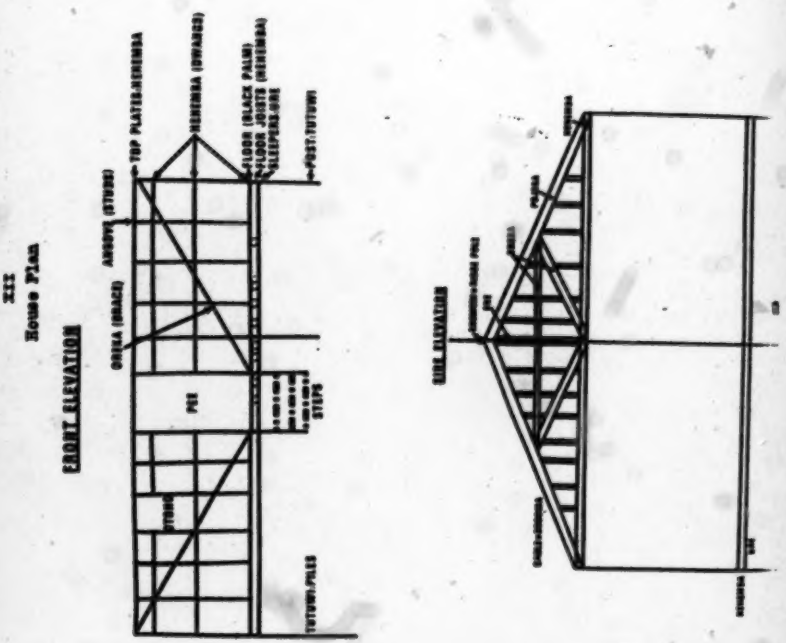
SASEMBATA MISSION STATION



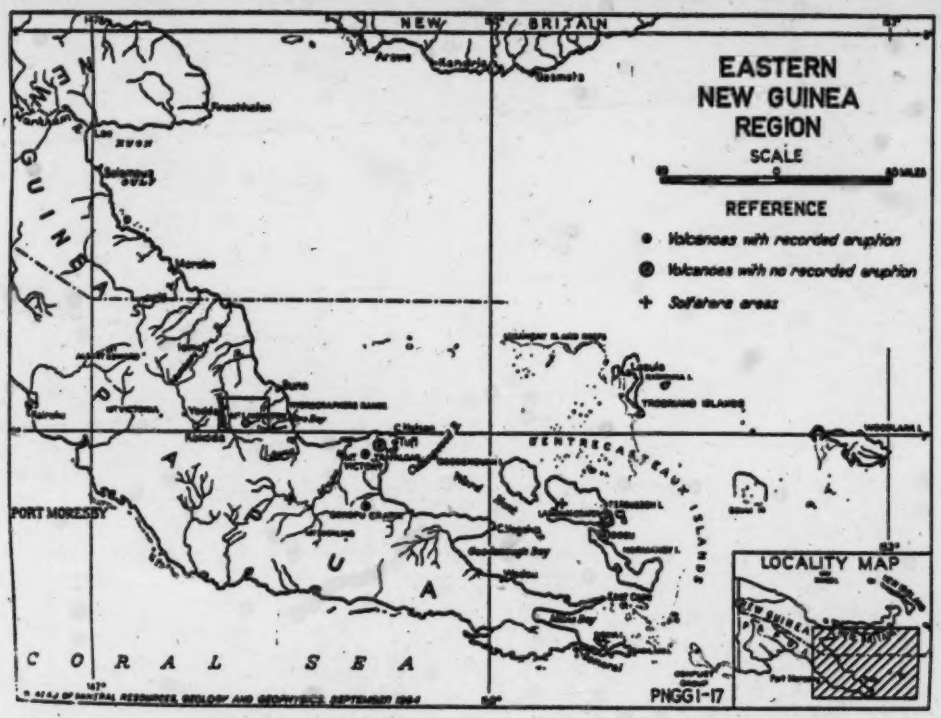
[End Map 10]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

342



[End Map 11(A)]



Boundaries of Northern District

[End Map 1]

22: Schwimmer E-4,5 (1966-1967) 1969 0323 Orokaiva 0323
Mount Lamington

102
133
131

22: Schwimmer E-4,5 (1966-1967) 1969 GU23 Orokaiva GU23
Mount Lamington

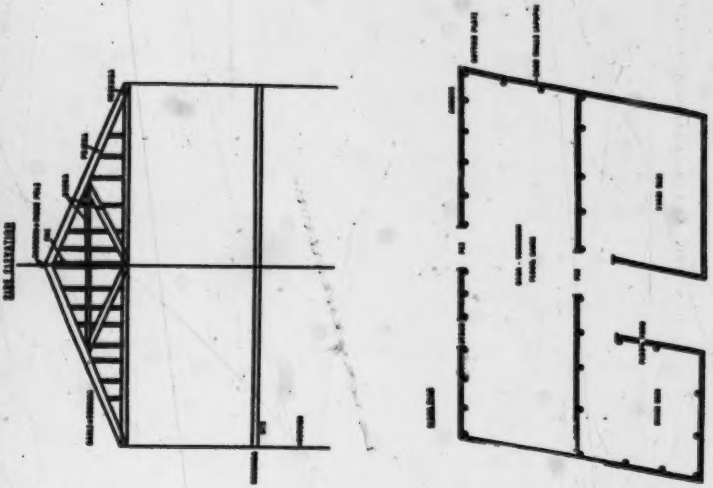
Map III

Source: Rinoldi 1966: 52.

Field Map 37

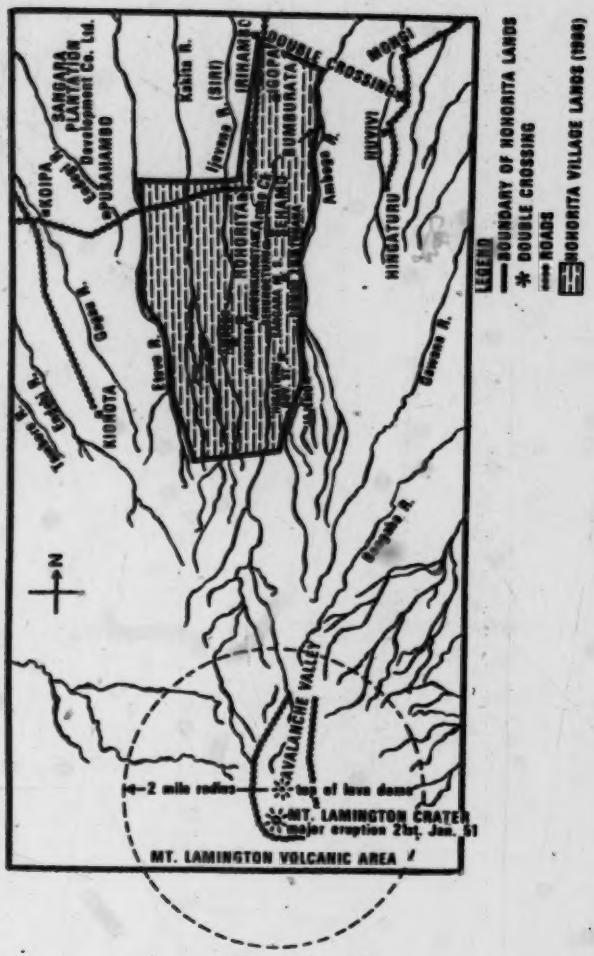
423
361
102
621
363
311

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington



[Enl Map 11(B)]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington



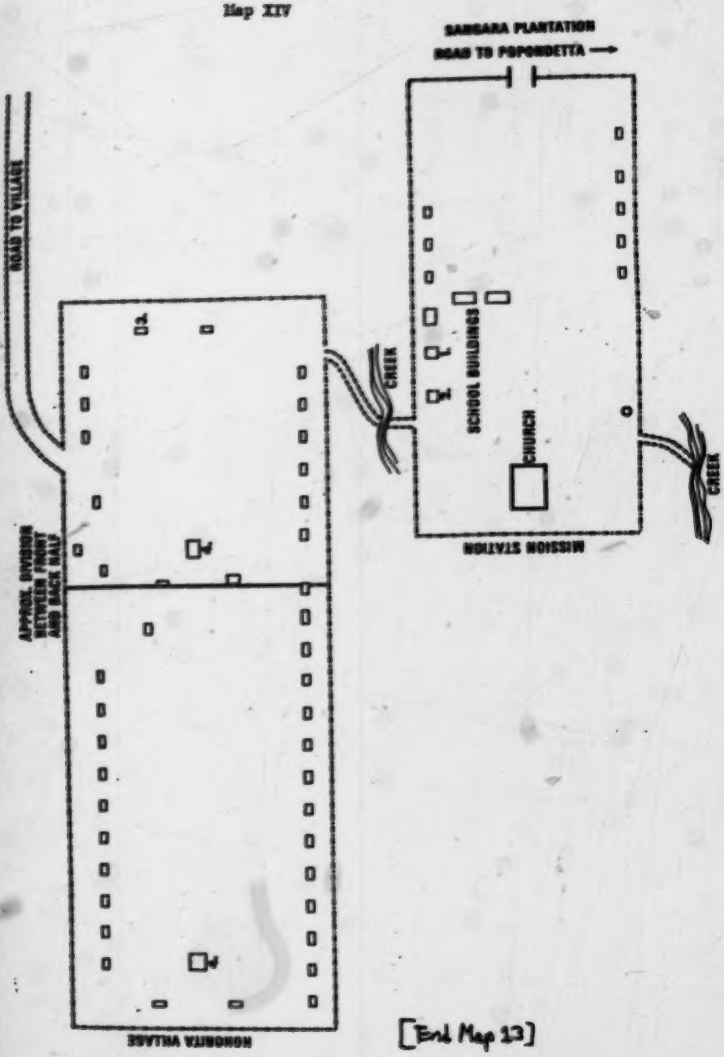
Map XIII

102
361
131
133
491

[End Map 12]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map XIV



997
102
361
133
491

[End Map 13]

GLOSSARY

araha -- center area of a village (p. 136)
bande -- house (p. 135)
bende -- "side" of a village (p. 136)
da -- village (p. 135)

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CHAPTER I
INTRODUCTION

I

A great deal of social behaviour may be explained, and traditionally has been explained by social anthropologists, with reference to rights and obligations arising out of membership in corporate groups. Such analysis was especially successful in societies where corporate groups are large and of wide scope. In a great many simpler societies these corporate groups define their members' rights and obligations with reference to the principle of descent, which accordingly offered an excellent analytical and comparative framework for anthropologists studying these societies.

It often happens that the participants in a social action do not behave as members of the same corporate group but rather as representatives of different and – for the purpose of the action – opposed social groups. The regularities found in this type of interaction have been the subject of exchange theory, as developed notably by Mauss, Lévi-Strauss, Homans, Blau, Barth and certain authorities in political, economic and religious anthropology. Although this theory has attained a high degree of sophistication, field anthropologists generally have preferred to organise their analysis around corporate groups and the principle of descent, as this seemed to provide explanations for many interesting institutional phenomena. When the workings of the 'principle of reciprocity' have been inquired into by ethnographers, these inquiries have tended to be in specialised areas of the culture, and only rarely have been based on the assumption that the explanatory value of the 'principle of reciprocity' might equal that of the 'principle of descent'.

Most ethnographers working in Melanesia, while following the traditional descent-based method of analysis of social structure, have been keenly aware of the paucity of corporate groups in that area, their extremely limited scope and, in contrast, the strong emphasis placed upon the principle of reciprocity. One reaction to this situation has been the 'configurational approach' advocated by Pouwer, which would place the principles of descent, reciprocity, residence, siblingship and some others not specified, on the same level, and the comparison of societies on the basis of the relative weight given to each principle. More recently some excellent ethnographies have appeared in which the importance of the principle of exchange is well recognised (e.g. Wagner 1967, Strathern 1971, Young 1971). But even when this approach is accepted as a basis of ethnographic operations, it is still not clear on what methods we may rely for the analysis of the working of the principle of reciprocity in primitive societies.

Exchange may be viewed from two opposite yet complementary starting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

12 points. First let us consider exchange partners as though they are strangers, with distinct destinies and personal interests, who decide to seek an alliance with one another for reasons which may range from psychological attraction to economic expediency. From this viewpoint the establishment and maintenance of a social relationship is always problematical and incomplete. The problem of how social exchange can ever get started has been a subject of speculation not only for social scientists but also for the Melanesians themselves.[1] In the Orokaiva folk-system the starting mechanism of an exchange system is presented in the form of a myth recounting a unique free gift made by a demi-god whereby the exchange cycle was set in motion. Historical change is represented by the emergence of a new demi-god setting up new exchange cycles. Once the relationship is started, it is composed of a perpetual cycle of exchanges between the two partners.

We may call this view of exchange phenomenological because it starts from *ego's* experience of a social relationship. *Ego* experiences *alter's* world as transcendant. As Husserl and Schutz have pointed out, social relations are necessarily based on an idealisation of the 'interchangeability of standpoints' (Schutz 1967: 126, 312–29). For that reason they are always to some extent precarious and incomplete. If our method of ethnography is to go beyond pure phenomenology, we also need to view exchange from a second viewpoint which I shall call analytical. From this viewpoint, it is impossible to conceive of the making, receiving and reciprocating of gifts by individuals in any culture unless that culture has conceptualised in some way the complementarity of donor and receiver. This notion of complementarity is inseparable from all our discourse about giving and receiving. For instance, in the present work I shall write a good deal about the exchange relationships between mother's brother and sister's son, husband and wife, son-in-law and father-in-law, friend and friend, creditor and debtor, victor and vanquished. Not only have the patterns of relationship linking these dyads been laid down by Orokaiva custom, but the complementary nature of these relationships is already implicit in the words I have used to describe them.

Although one might, with Nadel (1957), describe these dyads as logically related *roles*, this could give the impression that I am concerned merely with a set of rights and obligations that the role partners have *vis-à-vis* each other. The present work, however, deals with economic and psychological as well as normative aspects of dyadic relations. In a study of corporate groups, one must assume that exchanges between a dyad (*Ego* and *Alter*) are determined by corporate obligations. In a study of exchange systems, however, one must assume that the exchanges are in principle voluntary, and that normative rules specify no more than a code of behaviour by means of which it is commonly believed that *Alter* may be induced to do what *Ego* wants. (This desired object is often no more than the establishment or maintenance of a social relationship.) There are often no positive rules obliging A to fit in with E's wishes if E performs some specific act of liberality. For reasons shown in detail in later chapters, I prefer to think of acts of giving as magical rather than as obligating devices. I do not thereby question the importance of norms in explaining social regularities. Magic certainly contains norms: acts which are regularly performed to bring about certain ends because such acts are thought to be especially effective in eliciting a generous response.

There is nothing very new in the above view of exchange analysis, which may be found in Malinowski and also in Mauss, provided that one reads the *Essai sur le don* in the French original rather than in the English translation.[2] The question considered by both these authors – and also by sociologists such as Homans and Blau -- is how persons who have no prior obligations to one another can set up and maintain viable social relationships. In the simplest cases, and it was these that engaged the attention of Malinowski and Mauss, such transactions can be set in train by the proffering of one or more objects of exchange for which the donor later receives in exchange an object belonging to the same 'sphere'. Firth, Steiner, Bohannan, Salisbury and others have distinguished between transactions of this type and more complex ones called 'translations' (Steiner) or 'conversions' (Bohannan). Lévi-Straussian theory tended to follow the same tradition, as it dealt in great detail with transactions where women were exchanged for women while touching briefly upon marriage 'by purchase' which might be classified as a conversion.

II

For the task I have undertaken it is necessary to widen the range of objects of exchange in two directions; this will also greatly increase the importance that has to be accorded to 'conversions'. First, we should include as 'objects of exchange' the various types of social behaviour analysed by Homans and Blau: influence, prestige, power, authority, compliance, and so on. Now if these are treated as objects of exchange, it will be seen that asymmetry (or as Blau puts it, in a term not available to anthropologists, 'unilaterality') is characteristic of most transactions involving such objects of exchange. A person who gives a service receives influence, but the person who 'gives' the influence cannot 'receive' influence in return; he receives only service. Being inferior in status, any service he gives will gain him, not influence, but perhaps material goods, or perhaps a service of a different kind. Conversions are a normal phenomenon in social exchange.

We may further widen the concept of exchange if we include phenomena which are explained by people such as the Orokaiva as being similar in nature to social exchange. The Orokaiva view man and pig, pig and taro, coconut and betelnut, man and spirit, etc. as similar to exchange partners, a similarity which they express in mythology, philosophy, ritual and custom. In the course of this book we shall see exchange-oriented folk-models of explanation applied by the Orokaiva not only on the social, but also on religious, ecological, ritual, physiological, botanical, economic, technological, and philosophical levels. Exchange thus appears as pervasively as an *explicans* in Orokaiva culture as descent appears in some of the African societies analysed by anthropologists of the Radcliffe-Brownian school. Perhaps it appears even more pervasively, for on these levels, too, conversions are extremely frequent occurrences. Clearly, in transactions between partners such as man/spirit, man/pig, the prestations offered by each of the partners would be of a different order.

Such conversions, at any level, tend to be problematical. The exchange partners face each other as opponents; they have widely different objects of exchange to offer each other. Whether a social relationship between these opposites will actually be established in any given case depends on contingencies.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

12 I shall take as a simple example a relationship between an offender and his victim. The former has suffered some misfortune which has been put down to sorcery inflicted by the person he has offended. The objects of exchange are: reparation by the offender (e.g. by payment of a pig) and forgiveness to be offered by the offended party. This is a highly problematical transaction. There is an intervening ritual that must take place before the transaction can be completed. This ritual includes a common meal. Even then it is not certain whether the misfortune really will be removed.

Here we may speak of a cycle of exchanges which may be interrupted at any point. If the cycle is not closed, it follows that the social relationship between the opponents has failed somewhere along the line. They will remain enemies. More is involved here than a mere exchange between a reparation payment and a willingness to forgive. Because of the magical implications and the unpredictability of success, the transaction is far closer in essence to a sacrifice which may or may not be accepted by a deity. The 'gift' of a pig, the common meal and all the other ritual may be compared to a sacrifice. We may thus speak of mediating links that are often inserted in a transaction to ensure its efficacy. Lévi-Strauss has used the concept of mediation in his treatment of primitive philosophic systems.[3] I think it is also useful in the discussion of exchange and sacrifice as long as it is remembered that in a classificatory system a 'mediator' is an actual intermediary between two real existents, whereas in a sacrificial or transactional scheme it is a magical device for establishing an illusory union between self and other.

In summary, an 'exchange cycle' in the sense intended here contains three pairs of elements: (*a*) the basic elements placed in opposition; (*b*) the objects of exchange entering the transaction on each side; (*c*) the mediating objects or acts that may be interposed as a prestation moves from A to B and as a prestation of a different kind moves from B to A. Such models of exchange cycles, developed by the investigator on the basis of his understanding of indigenous thought patterns, will be useful in the explanation of institutions, as Orokaiva institutions tend to appear at some point in such cycles. The models will reveal their relationship to other elements in the cycles and their conceptualisation in the context of exchange.

An interesting consequence of these models is that they place elements of the material culture on the same level as social institutions. While this similarity should not be pushed too far, it is still inevitable that in this type of ethnographical analysis material culture and technology should be given a far greater place than is customary in social anthropology. Let us take, as the most obvious example, the relationship between son-in-law and father-in-law, in the field of marriage exchange, the prospective son-in-law having abducted or eloped with his prospective bride. Here the essential exchange is characterised by what Sahlins might call 'negative reciprocity': the son-in-law's act of abduction is paid back by a number of hostile acts on the part of the father-in-law, varying according to the power of the latter's anger. A number of ritual acts, services and gifts of specified types act as mediating links, failing which the father-in-law would not even recognise the relationship as an affinal one. Thus objects such as pig, taro and feather ornaments appear as mediating links in the hazardous process of establishing an exchange cycle.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Now, if we regard such objects as analogous to sacrifices, as I have suggested, and adopt Lévi-Strauss' theory of sacrifice, (developing the theory of Hubert and Mauss) we need to demonstrate, in the case of all these mediating links, that each gift object can be identified, from one viewpoint, with the giver and, from another viewpoint, with the receiver. Our understanding of the institution of marriage thus depends vitally on our understanding of taro-symbolism, pig-symbolism, etc. 121

In our analysis, the marriage institution is represented by a set of elements in exchange cycles. The latter cannot be understood unless we know precisely how the exchanges are mediated. We must thus know what various material objects symbolise in given contexts, in exchanges between persons standing in specified relationships. But these symbolisations in turn arise out of a body of myths, ethnoscientific notions, rituals and technological practices related to the objects in question. In the present book the analysis of these symbolisations precedes the systematic discussion of social relationships, as it is found that these relationships are almost invariably mediated by the transfer of material objects so that we have to be clear about the former before we can understand much about the latter. If the method set out here finds favour, it may lead to an increased interest in material culture on the part of social anthropologists.

III

In the study of symbolism, we need to combine a synchronic and diachronic perspective. Thus, a person making a gift is usually involved in an ongoing (diachronic) relationship, but if the gift is made in a ritual context, there is likely to be some religious belief in its efficacy. In New Guinea such belief tends to be validated by a myth in which the gift in question is made by a primordial donor whose action has since, both in form and substance, been imitated by man. Such imitation might well be called a form of magic, in as much as it calls forth from the recipient a desired response not otherwise obtainable. F. E. Williams, who first noted this New Guinean technique of imitating actions of culture-heroes for magical purposes, gave it the term 'magic of impersonation' (1932–3; 1940: 135–7, 341–3; 1940–2: 82–3, 115–21).

The method we follow thus requires a detailed study of myths. One may say that a person making a ritual gift uses a myth as a charter for his behaviour. Malinowski, noting this correspondence, suggested that such myths are invented to account for previously existing behaviour. Such a view can never be wholly rejected; we may well argue that one cannot imitate a god unless one has previously, to some extent, invented him and thus imbued him with one's own action patterns. On the other hand, such invented patterns are not intelligible in themselves so that we need a structural analysis to make sense of them. Hence, the present work makes some limited use of Lévi-Straussian methods of myth analysis.

Nonetheless, the present work is basically an ethnography. No theory of exchange has been offered here, only an analysis of ethnographic data, indicating how Orokaiva conceive of the exchange of certain objects in which they have a special interest. In the course of analysis, I have drawn on a few theoretical sources in rather eclectic fashion. I believe that the method of description I have

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OJ23 Orokaiva OJ23
Mountain Orokaiva

121 followed is especially appropriate for making sense of Melanesian societies, and perhaps other societies also. For the method to be consolidated, a second field study will be necessary, explicitly and systematically oriented towards communication systems, boundary systems, proxemics and the like, covering the communication of women, material objects and messages, and including at least some comparative perspective and some myth analysis. The present work, however, seems a necessary first step in plotting such new approaches to ethnography.

121 My work was much facilitated by a wealth of previous studies of the
114 Orokaiva,[4] of which the most valuable is still F. E. Williams' *Orokaiva Society* (1930). Re-study proved it to be a highly accurate work, focusing on the most challenging problems posed by the social system. Among these are the bilateral tendencies in the kinship system classified as patrilineal; the plant emblem groups; the relation of 'homicidal emblems' to initiation rituals and especially the subtleties of the value system, brilliantly handled in the chapter on 'Morality'.

A successor can fulfil various useful offices, some minor, some major. First, Williams' work can be used as a basis for a study of culture change. I have done this to some extent in an earlier work (Schwimmer 1969) and in the present work where the argument demanded it. Secondly, *Orokaiva Society* provides a composite picture of a number of closely related, yet by no means identical
[101] systems (Mountain Orokaiva, Aika, Yega, Binandere, etc.) In this re-study, I confined myself to Mountain Orokaiva, reserving for another occasion a survey of the diversities in degree of patrilineality, kinship terminology, ritual forms, leadership patterns and the like, all related to the ecological base and settlement history.

Thirdly, Williams' study of the Orokaiva was made early in his career. When reading his later works, we note analyses (on sex affiliation, 1932; on dual division, 1924, Ch. VIII, 1936 Chs. VI–IX, 1940: 32–5; on 'disease and its treatment 1940–2: 90–105; and on totemic groups, e.g. 1940) that would apply with minor variations to the Orokaiva, but are not developed in Williams' writings on that tribe. We need not suppose that in the Northern District Williams failed to observe what he saw and described in relation to Kerari or Elema. It is more likely that he was progressing steadily along a highly individual analytical path, leading him only gradually to perceptions which were theoretically far ahead of his times. In any case, in my analysis of Orokaiva plant emblem groups (Ch. X) my presentation is very close to Williams' work on the Elema, although it departs from that on the Orokaiva. Similarly, I have drawn on his writings on 'sex affiliation' among the Koiari and 'dual division' in the Gulf District, on disease at Lake Kutubu and so forth, thus bringing to bear the insights of Williams' maturity on Orokaiva material.

These are the minor tasks. The major one is to continue the search for system in New Guinea societies on the basis of these insights and of the theoretical discoveries of the last thirty years. Thus this book is in a sense a dialogue with Williams to which I contribute new data that seem relevant.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

IV

The ethnography is divided into three parts. In the first part, after providing a brief general sketch of Orokaiva culture, I shall examine the 'starting mechanisms' of Orokaiva exchange cycles, both in traditional institutions (Ch. III) and in institutions developed since the British-Australian conquest (Ch. IV). The second part of the study is concerned chiefly with objects of mediation: land, taro, pigs, minor foods and ornaments (Chs. V–IX). In the third part the focus shifts to the relations between exchange partners mediated by the prestations analysed in the preceding chapters.

Although my presentation of Orokaiva social structure in this part of the work is not intended to be controversial, the focus differs from that of earlier ethnographies and here and there earlier findings had to be questioned in the light of fresh evidence. Orokaiva society contains several types of groupings (clan, local clan group, lineage, plant emblem group) whose members, according to informants, are recruited exclusively on the basis of agnatic descent. Earlier investigators have emphasised these patrilineal characteristics by equating the lineage and clan emblem group, proclaiming them both to be segments of local clan groups, and by treating the local clan group as something like a segment of a clan. My own analysis, however, will be concerned more with clan fusions and fissions, with irregular recruitment within the plant emblem group, and with the lack of evidence for agnatic connection between lineages and local clan groups. My evidence shows that the non-agnates recruited into these putatively agnatic groupings are mostly uterine kin. But above all I shall try to establish that these departures from the supposed agnatic norms are not cases of irregularity or deviance, but an integral part of the Orokaiva kinship system. I shall suggest that normally clans are not intrinsically agnatic but rather that they arose out of alliances between smaller groups whose original link was affinal. The effect of this argument is to show the narrow limits of range and scope within which Orokaiva patrilineal corporations operate, and thus to emphasise the importance of the exchange system as a principle of social structure.

As soon as we extend kinship analysis beyond the conjugal family, we observe that mediation is carried on not only through non-social objects used as gifts or prestations, but also through social objects used as intermediaries. Thus, in the relation between sister's son and mother's brother there is an intermediary who is mother of one of the partners and sister of the other. Similarly, the relation between two brothers-in-law is mediated by a woman who is wife of one and sister of the other. Men also often act as mediators between exchange partners when these are not linked by kinship, or when the exchange partners are female.

The principles of exchange are the same whether the objects of meditation be social or non-social. In both cases there are two partners, *ego* and *alter*, who establish or maintain a social relationship. The object of mediation, whether social or non-social, is so chosen that both *ego* and *alter* are – or become – closely identified with it. If *ego* and *alter* are male non-agnatic kinsmen, the mediator must be a woman: if they are female non-agnatic kinsmen, the mediator must be a man. In either case, the concept of an object of mediation implies that at the beginning of the transaction *ego* had some exclusive claim

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 upon the man or woman who is being 'transferred', but as the result of the
571 transaction this claims passes to *alter*.

The most familiar example of such a transfer is that of a woman who is 'given' by her brother to her prospective husband. When Lévi-Strauss developed
121 the exchange or 'alliance' theory of social structure, he mainly discussed this
581 type of transaction, whereby a social relationship between two male partners is created by the transfer of a woman from the control of one to the other. It is clear, however, that for every man who marries, a new relationship is also created between women who become sisters-in-law. In a very significant sense, the wife has taken the man from the sister. The Orokaiva acknowledge this aspect in two ways: by the gift of a pig made by the wife to the sister, and by the term of address *bi* (= penis) used between sisters-in-law.

121 We may thus see social structure as the product of a web of mediation. The
571 usefulness of such a concept depends very much on the extent to which these intermediaries are institutionally involved in dealings between partners. Among the Orokaiva, their roles as intermediaries in exchanges between men are well articulated. As wives, as sisters and as mothers they link the very small patrilineal kinship groups into social units of a viable size. The system of marriage is a rather involved one, containing elements of restricted as well as of complex generalised exchange. Once this system of marriage is fully understood (Ch. X), the basic workings of Orokaiva society stand fairly clearly revealed. The study of Orokaiva exchange would not be adequate, however, without a brief consideration of the independent friendship network and the system of ranking, especially as it has affected recent Orokaiva-Australian relations (Ch. XI).

121 We thus return, though with a slightly more specific methodology, to Mauss' concept of exchange as a 'total phenomenon', in the sense that we posit the interrelations of notions of exchange occurring at any level of conceptualisation, social and non-social. It is in the very pervasiveness of such notions throughout the culture that we find evidence for its dominance in Orokaiva thought and institutions and for its power to mould social life.

REFERENCES

121 1 I refer especially to the discussion of the 'starting mechanism' of exchange in Gouldner 1960 and to Blau's (1964) criticism of Gouldner. My own view is that the approaches of these two authors are complementary.

2 Cunnison's translation (1954) suppresses in many passages Mauss' concern with economic and psychological factors. Compare Mauss: 'Quelle est la règle de droit *et d'intérêt* qui, dans les sociétés de type arriéré ou archaïque, fait que le présent reçu est obligatoirement rendu? ' (1966:148) and: 'In primitive or archaic types of society, what is the principle whereby the gift received has to be repaid? ' (Cunnison 1954:1). Compare also: 'ce type de droit et d'économie' (Mauss 153; Cunnison 5); omission by Cunnison of the last paragraph of Mauss 173; 'ces concepts de droit et d'économie (Mauss 267; Cunnison 70); 'en règles de droit, en mythes, en valeurs et en prix' (Mauss 275, Cunnison 77), etc. Recent criticism of Mauss by economic anthropologists sometimes reads as though it is based on translation rather than original.

3 For Lévi-Strauss' discussion of the notion of mediation see *La Pensée Sauvage*, Ch. VIII and *passim*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER III

THE IDEOLOGY OF INTERTRIBAL EXCHANGE

1. *Experiences with the Exchange System*

Many authors have been fascinated by Melanesian ideas of reciprocity and exchange. Malinowski was the first to show in detail that these ideas are a central theme in Melanesian cultures; his lead was followed by Bateson, Belshaw, Burridge, van der Leeden, Pouwer, Reay, Sahlins, Salisbury, Strathern, Wagner, Young and many others. The literature on Orokaiva exchange, however, is less comprehensive than for some other parts of Melanesia. Williams, the principal ethnographer, has written a great deal on reciprocity and marriage exchange among Papuan groups, but this was mostly in his later works (1934, 1936, etc.), which do not deal with the Orokaiva. Some phenomena, as he records in his later ethnographies, might in some instances just as well have been found among the Orokaiva, and here it will be my role to fill in the record. Very recently, Waddell and Krinks (1968) have collected detailed statistical data on Orokaiva exchange. Valuable as this material is, it is concerned with economic geography rather than social organisation and ideology. 1210

All ethnographers who have worked among the Orokaiva seem to be well aware of the importance of the exchange system. Whenever I met one he soon came up with the key question: 'How did you get on with *hoija*?', *hoija* being an Orokaiva word meaning 'exchange between non-kin'. Fieldwork in any area probably has its tensions; among the Orokaiva the initial distrust of, perhaps the hostility towards, the fieldworker finds its expression in the rather aggressive offering of (sometimes unwanted) gifts and services, followed immediately by peremptory demands or ceaseless wheedling for return prestations. Every fieldworker thinks of some 'solution' to this problem: accepting everything (because according to Mauss the acceptance of gifts is obligatory), accepting just a little from everyone, accepting prestations from only a carefully defined and limited group, or maybe accepting nothing, though I cannot imagine this. What all these anthropologists are talking about, though from a purely practical rather than a theoretical viewpoint, is how they should behave as exchange partners, given their own peculiar status. It should be a comfort to them that Firth has recently (1967) challenged Mauss' proposition that the acceptance of gifts among primitives is obligatory. They will now probably have fewer uneaten potatoes and German taro lying on their verandahs! 431 123

In all the villages I visited events followed the same kind of sequence. I always received an effusive welcome and many gifts for which no return was asked. This

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *tvo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 delayed or altogether flounder and the relationship may be prevented from developing.

Gouldner's answer to this dilemma was that there must be a 'norm of reciprocity', internalised in both parties, which *obliges* the one who has first received a benefit to repay it at some time. Other sociologists, such as Blau (1964: 92–3), do not accept this particular explanation, because they do not believe that all social constraints are normative 'and those imposed by the nature of social exchange are not, at least, not originally'. Blau argues, in short, that the advantages to be gained from entering into exchange relations are psychologically so compelling that dangers and suspicions are insufficient obstacles. Even those who fully agree that not all social constraints are normative may feel dissatisfied with this psychological non-explanation.

Let us now consider how the dilemma can be solved in terms of Orokaiva social philosophy as presented in previous sections of this chapter. Orokaiva recognise that social exchange is precarious but claim to have various (magical) devices which are successful if properly used. These devices appear in my model as mediating elements. Why do Orokaiva believe in their effectiveness? They do so because the mediating devices have been instituted by demigods whose heroic feats they re-enact in their rituals. There is a strict code saying what should be done and how it should be done. The exchange fails if the code is not followed. What we have is not, as Gouldner suggests, one norm of reciprocity, but a wide range of codes deriving their authority from mythical demigods. The 'starting mechanism' is, in effect, the whole of Orokaiva mythology. I have been unable to find a charter in this mythology for any rule that a person who has received a benefit should repay it; in other words, I do not know of an Orokaiva mythical charter for a norm of reciprocity. All I have encountered are rules stating what acts are necessary if certain types of exchange are to be effected successfully.

776 I shall clarify these generalisations by giving a brief account of the nature of
171 these demigods and of the rules they instituted, so as to be able to set out more
773 clearly their role in the Orokaiva exchange system. The demigods of the Orokaiva resemble those found throughout Melanesia. Not all the cultures who believe in such demigods have a generic term for them. The Marind-anim of Western New Guinea, however, use the term *dema* to refer to all beings who lived in original time, to whom the creation of a feature of the cultural order is ascribed, and who are celebrated in myth and ritual. I shall follow Jensen (1960) and borrow the Marind-anim term, though other terms used in anthropological literature (culture hero, transformer, etc.) have a somewhat similar meaning.

Jensen presents a useful generalised portrait of these *dema*, as they are found in cultures of tropical tuber cultivators. In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a *dema* but through the circumstances of his death or departure, which make his *dema*-like nature apparent and give rise to an institution. Thus, Totoima became a *dema* as the result of his body being shared among his people; Jomiko and Sirere became *dema* after departing, in their peculiar way, from the world of man. Similarly the coconut *dema* is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 657 177 working out a development policy, but rather of obeying a sacred formula that came to the Australian authorities from a *dema*-like source and was then passed on as a gift to the Orokaiva.

829 [123] Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus Christ, or are there other *dema* figures as well to whom these gifts are ascribed? Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

● 121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 466 829 437 177 An employer of Papuan labour is interested chiefly in obtaining the compliance of his workers by the payment of money. Usually he is not at all interested in social exchange, but in a contract whereby he acquires the total work output of the worker for the period he is on the job. The Orokaiva, however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 437 177 The basic significance of the *baksheesh* has already been pointed out by Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de l'individualité du donateur.*' It rests on a notion that both worker and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

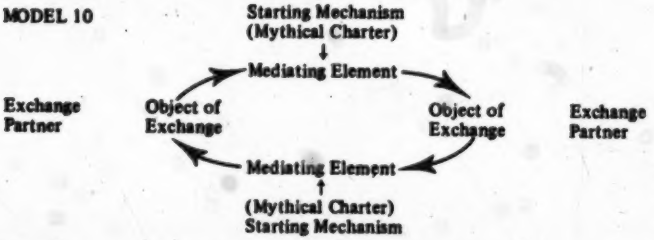
CHAPTER V:

LAND

1. *Mediating Elements*

In the preceding chapters I have set out a method for studying the working of the principle of reciprocity in Orokaiva society. I have shown in a general way how this method may be used for the analysis of traditional institutions and demonstrated that it is still applicable to contemporary institutions. In the chapters that follow I shall apply this method to elucidate a wide range of ethnographic data for some of which no satisfactory alternative explanation has yet been offered. To recapitulate, we may state the method, as set out so far, in the following provisional model:

MODEL 10



There are three main constituents in this model, viz. (*a*) exchange partners; (*b*) objects of exchange; (*c*) mediating elements.

The plan of this work is to discuss mediating elements in the present and four succeeding chapters, and to deal specifically with relationships between exchange partners in chapters X and XI. The objects of exchange, some of which have been briefly mentioned in previous chapters, tend to be institutionalised social attitudes such as repentance / forgiveness; compliance / administrative or pastoral care; avoidance / preservation from harm. Objects of this kind are exchanged in virtually all cultures. In deciding whether or not they will engage in such exchanges, individuals weigh the social costs they would incur against the social benefits they might gain. Social psychologists like Homans and Blau have made valuable contributions in this field of study. In omitting consideration of it here I do not mean to imply that it is irrelevant to anthropologists, but it is difficult to develop universal propositions about human exchange and analyse universal processes governing associations, in a work whose main purpose is the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

12.1 elucidation of a specific cultural system. The study of objects of exchange requires a book to itself.

My discussion on mediation starts from the principle that gifts are essentially similar to sacrifices. Hubert and Mauss suggested that sacrifice, beneath the diverse forms it takes, always consists in one same procedure: 'This procedure consists in establishing a means of communication between the sacred and the profane worlds through the mediation of a victim, that is, of a thing that in the course of the ceremony is destroyed' (1964: 97). In the same vein, we may say that the gift, beneath the diverse forms it takes, also always consists in the same procedure. Echoing Hubert and Mauss, we may describe this procedure as the establishment of a means of communication between Ego and Alter by the mediation of a thing from which Ego later separates himself.

One of the characteristics common to social exchange and sacrifice is identification between the donor (or sacrificer) and the mediating element (or victim). In the anthropological literature on sacrifice, one of the subtlest and most illuminating accounts of identification is given by Evans-Pritchard when he discusses the relation between men and oxen among the Nuer (1956). Here we find strong economic dependence, deep emotional attachment, the assumption of ox-names by men, religious practices (not involving sacrifice) where oxen serve as a direct means of communication with the unseen world, all of which is summed up by Evans-Pritchard as 'a moral identification, a participation imposed on the individual by his culture and inextricably bound up with religious values' (*ibid*, 257). In this and the next few chapters, I shall show that there is a rather similar relation between Orokaiva individuals and the land, taro, pigs, etc. that they use as mediating elements in social exchange.

Lévi-Strauss (1962: 294–302) has recently argued that this identification of sacrificer and victim is only one of a series of identifications by means of which a connection is established 'between two polar terms, the sacrificer and the deity, between which there is initially no homology or relation of any kind'. These identifications

> *peuvent se faire dans les deux sens, selon que le sacrifice est piaculaire ou qu'il représente un rite de communion: soit donc, du sacrifiant au sacrificateur, du sacrificateur à la victime, de la victime sacralisée à la divinité: soit dans l'ordre inverse.*

Here again the procedure of social exchange is essentially similar to the procedure of sacrifice. Identifications are made at every phase of an exchange cycle: the donor identifies with the mediating element, the mediating element identifies with the recipient. If the recipient is willing to return forgiveness for repentance, and to restore the exchange relationship, he follows the same procedure, in the opposite direction.

How does the mediating element 'identify with' the recipient? This process is best explained by the analogy of the 'sacralisation' of the victim in sacrifice. Hubert and Mauss distinguish two ways in which a victim may be consecrated: there may be fixed rites to confer upon it the religious condition that its destined role demands; or it may be consecrated by the mere fact that the species to which it belongs is joined to the divinity by special links (1964: 29, 122–3). Even so, one of the great anxieties in sacrifice tends to be whether the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

victim is really a proper one, whether it is god-like, so that the god may identify with it. The only test of propriety and perfection is the practical one of whether the sacrifice is 'accepted', whether the sacrifice actually receives the desired benefit. Success depends on the willingness of the god to identify with the proffered victim, and so can never be predicted.

It is the same with elements of mediation. Their purpose is to attract and seduce the recipient. The donor hopes that the recipient is 'captivated' by a gift, or an appealing speech, or the use of some ritual object. Thus he is induced to cede whatever the donor happens to desire. To a varying extent there are fixed rites to confer upon the mediating element the magical condition that its destined role demands. What these rites are, and whether there are any, depends on the nature of the relationship between the partners, the nature of the exchange, and the nature of the mediating elements themselves. The style of giving is arranged so as to increase the power of the mediating element to entice and seduce the recipient, to overcome him so that he in turn will wish to overwhelm the donors with his generosity.

The intent of using an object of mediation may thus be called magical in the sense of Williams' 'magic of impersonation', i.e. in a rudimentary or elaborate rite, a person identifies himself with a mythical character who has been efficacious in making the gift and obtaining the required result. Hence the mythical charter included in the model is essential to the understanding of the process, as there is no other ground for believing in the efficacy of the transaction. We may thus say objectively that within the Orokaiva cognitive system magical intent always inheres to some extent in elements of mediation.

To be sure, most transactions that actually take place are somewhat standardised and habitual. There are fixed modes of making gifts almost mechanically. Many of the transactions I shall consider are of this kind. At the same time, gift-making always remains to some extent a game of strategy, a way of manipulating an opponent, preferably at the smallest cost to oneself. But this is as true of sacrifice as it is of social exchange. Furthermore, this game of strategy always remains a very emotional one, as the breakdown of almost any social relationship is regarded as a grave threat.

An object of mediation has more than one fixed use. Just as the significance of a word in a language depends on the context in which it is used, the prefixes and suffixes attached to it and its grammatical position in the sentence, so also the significance of an object of mediation may vary according to the existing relationship of the exchange partners, the objects of exchange, the manner in which the mediating object is given and the codes and norms governing the total transaction. The description of a single object of mediation therefore involves semological operations somewhat resembling the description of words in a dictionary. I have not attempted the immense task of compiling a comprehensive catalogue of Orokaiva exchange but contented myself with a limited number of objects of mediation, sufficient to demonstrate a method and to describe some key objects of mediation in Orokaiva culture. If a complete compilation were made it would show the meaning of all gifts that are made for the purpose of mediating social exchange.

Though the concept of mediation used here is inspired by the concept of mediation as developed in the work of Lévi-Strauss and Leach, there are

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 differences that must be clearly stated to avoid confusion. When the two earlier authors speak of mediation, they are usually dealing with real existents which appear as binary oppositions in non-empirical cognitive systems, e.g. earth /sky. The mediating element is likewise a real existent which is physically interposed between the two opposites. e.g. trees, birds. Their physically intermediate position is an empirical fact utilised in the building of cognitive systems, which treat trees or birds as mediators between earth and sky.

When Lévi-Strauss speaks of 'mediation' in the context of sacrifice, he warns that he is not speaking of the same thing: while cognitive systems are 'systems of reference' classifying real existents, sacrifice is a 'system of operations', a technique for obtaining certain results where the opposed elements are: the Self (a real existent, in this argument) and the Other – who is transcendant and may be a god postulated for the sake of obtaining the results. While trees and birds are always physically interposed between earth and sky, a pig is interposed between man and god, or between two exchange partners, purely as an operational strategem. It may be replaced by a different object of mediation (a chicken) or by anything else human ingenuity may invent. Lévi-Strauss describes the difference thus:

> *Les systèmes classificatoires se situent au niveau de la langue: ce sont des codes plus ou moins bien faits, mais toujours en vue d'exprimer des sens, tandis que le système du sacrifice représente un discours particulier, et dénué de bon sens quoiqu'il soit fréquemment proféré. (ibid. 302)*

This argument applies to social transactions as much as to sacrifice. Certainly, in social transactions *alter* is a real existent, viz. another human being or group of human beings. Yet this *alter* has one crucial transcendental[1] characteristic, namely that *ego* cannot control his will. In making a gift to *alter* we may feel that by the norm of reciprocity we ought to receive something in return, but we can never be sure that we will. Mediating elements used in social transactions therefore have an essential resemblance to sacrifices. They are real existents which are believed to have 'virtue', i.e. to elicit a desired social return, if given to certain classes of partners in certain circumstances. The purpose of the present investigation is to determine why beliefs in the 'virtue' of various objects of mediation are held among the Orokaiva.

It is readily admitted that the system I am studying here is *'un discours particulier, et dénué de bon sens'* and that it does not provide a classifactory scheme representing the universe. It merits the term 'system' only because each exchange cycle forms a system and success or failure in the use of objects of mediation is advanced by Orokaiva as an explanation of a great variety of interconnected event-structures in time. I shall return to these theoretical questions in the introduction to chapter VIII. It will be useful first to survey some of the more elementary Orokaiva magical recipes for effecting social exchange by means of gifts of land, taro and pigs.

2. *Land and its Transfer: Transactions between the Sexes*

423 171 The first object to be considered is land. A kind of standard profile of the general characteristics of New Guinea land tenure has already emerged from the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

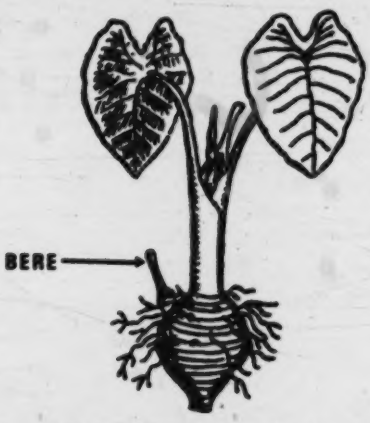


Fig. 7. *Colocasia esculenta* (taro).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

824 The present chapter elaborates these ideas, as applied to taro gifts among the
431 Orokaiva. With the aid of some recorded myths, I shall try to show just how taro
571 is conceptualised, in what precise sense it is symbolic of 'hearth and home', and
121 specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish between two specific ritual statements that can be made with the aid of taro and show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

602 It is obvious that taro exchanges cannot make any essential change in the
431 relationship of members of the same corporate group. By definition, this
824 relationship is already determined by the rules of incorporation. Thus, two brothers do not become more intimate by exchanging taro. On the other hand, if the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

824 I shall begin the analysis of taro symbolism with one myth especially rich in
773 content, which includes all of the five characters, some of whom, in one way or
244 another, appear in all the myths. It also stands out by the clarity of its detail on
539 the cultivation cycle. As I proceed, I shall discuss some variant myths which emphasise certain themes omitted in the main one or convey the same message in different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

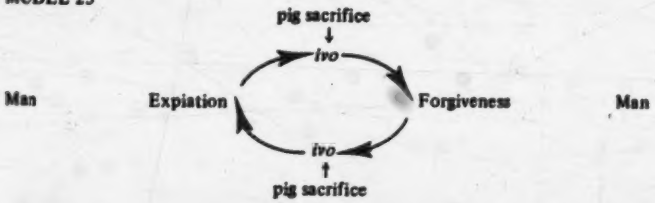
3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112, 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

A (See Cat. 571, p. 148--Analyst)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that such identification could be achieved only if there is a starting mechanism, in the form of a mythical charter, which defines the object as having the magical qualities that will enable it to act as mediator.

It must be admitted, however, that this mythical charter is logically prior to the social relation *only in the view of the indigenous culture* and that its logical status is no higher than *hau, mana, ivo* or any other mystical concept of the type Lévi-Strauss rejects as 'verbose phenomenology'. How can we meet this criticism? If we are to follow Lévi-Strauss' prescription, we have to turn to the largely unconscious categories of Orokaiva 'symbolic thought', i.e. the basic binary oppositions discovered in the culture by structural analysis. We have already, from the preceding chapters, some idea what the basic Orokaiva oppositions would be. We have noticed, especially, the importance of the male and female principle: most other binary oppositions we have found are related to this. The bush is classified as belonging to the male, the garden to the female; the wild pig to the male, taro to the female. Gifts of raw food are male, of cooked food female. Killing is the province of the male, nurture of the female.

Now such oppositions belong to 'symbolic thought', as Lévi-Strauss uses the term, precisely because of the kind of evidence I have brought forward in preceding chapters: it is the symbolic exchange relations holding between male and female, bush and garden, pig and taro, etc., that give them the status of binary oppositions in the structural analysis of Orokaiva culture. The difference between Lévi-Strauss' approach and my own does not lie so much in his and my use of binary oppositions as in my use of an exchange model in which the magical aspect of mediation is emphasised. For instance, my model 22 contains two binary oppositions: Man as Hunter/Pig as Marauder; and *Sovai*/Domesticated Pig. Both of these could, I think, be accommodated as part of a 'structural analysis' of Orokaiva culture. When I connect these two binary oppositions with arrows showing an exchange transaction distinguishing partners and objects of exchange and elements of mediation, I am introducing a 'subjectivist' element which is alien to structural analysis. I am showing a concern for the study of transactions, dialectical process, praxis, or perhaps Mauss' concept of *hau*. From a structuralist viewpoint, my arrows are entirely unnecessary as the exchange process is a prior condition of binary oppositions and has no place on the level of the model except as a logical operator (usually the symbol: /).

Now one problem with structural analysis is always at what point one should stop. Certainly analysis may reveal a great deal about the workings of symbolism in culture as it reduces social relations to exchange, exchange to symbolic thought and finally, in Lévi-Strauss' *Mythologiques* (1964, 1966, 1968) symbolic thought to computer signals. As Simonis (1968: 311) has wisely pointed out, at the final stage we move from a science of man to the logic of aesthetic perception. I think we should stop at the point most expedient for our own investigation. It is not useful in a study of Orokaiva exchange to carry on the analysis until exchange is reduced to the status of a logical operator. On the other hand, if in the manner of the phenomenologists we 'bracket' the logical priority of exchange, we find ourselves in difficulties when the folk system itself contains the type of dialectical reasoning upon which Lévi-Strauss founds his own theory. This is the problem with which we shall be concerned in the present chapter.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*sa*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the father-son relationship is suppressed by consciousness, among the Orokaiva as among ourselves, and is revealed only in dreams, myths and other messages from the unconscious. In contrast, synchronic exchange – as the love between spouses, the amity between affines – is overtly recognised and empirically verifiable on the social level. It is, however, purely imaginary on the ecological level, as plant associations, such as that of coconut and betelnut, *oga* and *eumba*, *puga* and *hoe*, yam and *hamesi*, are not necessarily found in nature but are generally brought about by man for magico-religious reasons. When man establishes these plant associations he is recreating on the ecological level the symbolic equivalents of the social relations on which his prosperity depends.

These social relations are, as we have seen, of two types. In sexual love we find the mystical and irrevocable unity of opposites where objects of mediation become, in the last analysis, irrelevant. But in other social exchanges we find a necessity for objects of mediation establishing a link between self and other. This relationship is exemplified in its purest form in model 29, the model of sister exchange, where a relationship between *dambo* is mediated by an exchange of sisters. But in models 28 and 30 we find important variants, where betelnut and coconut are substituted to mediate the exchange. Precisely because neither of these two products is of any great economic value, they are appropriate for serving as tokens of exchange, a signal of the potential existence of exchange, between any partners, though in the myth and in mortuary ritual this exchange takes place between the prototype-partners of the Orokaiva, the *dambo*. The rather bold suggestion I made at the end of the previous section therefore corresponds to a hidden reality, namely that gifts of coconut and betelnut are symbolic of sexual exchange. It is significant, in this regard, that sisters-in-law address each other by the term *bi*, which means penis.

REFERENCES

1 I am referring here to Radcliffe-Brown's discussion on Yin and Yang as an example of complementary opposition (1951) and to Lévi-Strauss' adoption of this example to present his theory concerning the real nature of totemism (Lévi-Strauss 1962T). Coconut and betelnut, in the myth discussed in the present chapter, may be seen as a further example of the same principle.

2 This type of logic, first developed by Gentzen in 1934, was adopted afterwards by Popper and has been shown to be the basis of primitive systems of thought (Jarvie 1964). It requires no investigation into the truth value of axioms. Gentzen called it 'natural deduction'.

3 Though Malinowski held (1926M) that 'myth serves principally to establish a sociological charter, or a retrospective moral pattern of behaviour, or the primeval supreme miracle of magic', he knew very well that the charter is occasionally 'flagrantly violated' by the actual norms of a society. He also recognised that where we find a fully institutionalised violation of a mythical charter, we should seek an explanation for the discrepancy. Malinowski even took initial steps towards such explanation: 'This violation always takes place when the local claims of an autochthonous clan . . . are overriden by an immigrant clan. Then a conflict of principles is created . . .' (1926M; reprinted 1954: 117)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 A very similar point was made by Lévi-Strauss in 'Legeste d'Asdiwal'. After pointing out that the institutions described in myths can be the very opposite of real institutions, he argues that any such discrepancy 'implies an admission that the social facts are marred by an insurmountable contradiction'. By investigating such contradictions, we may find means of 'reaching unconscious categories' (1961: 1110–1). This is precisely the strategy I have adopted in the present chapter.

539 773 4 I have followed a method demonstrated by Lévi-Strauss in *Le cru et le cuit* (1964). I have shown that the two myths discussed in this section are isomorphous; I have isolated their distinctive features and posited that they are interrelated. I found that in each myth three levels (botanical, social, physiological) were superimposed and that each level transmitted the same message. Between the two myths, there was an inversion of the codes and the message (1964: 205, 250–2).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified with it. Identity, in this instance,[1] is not defined as attached to an individual but rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will henceforth regard it, in the same sense, as a symbol of identity. The ornament is then called an *otohu*, a term to be defined later. It is worn by its owner and those who see it recognise it as a symbol of its owner's moral integrity. It indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

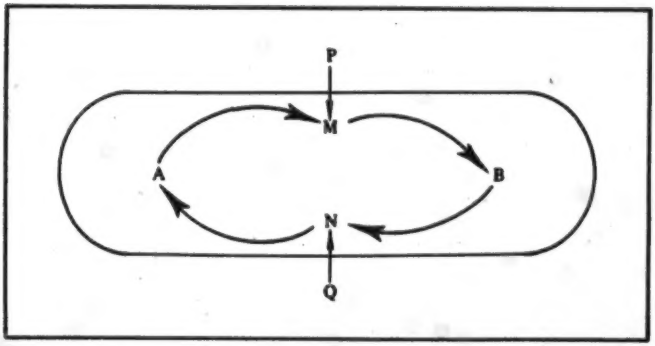
an economic standpoint, it is important that they represent storable wealth – the only storable wealth of the Orokaiva. Nearly every family today keeps *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

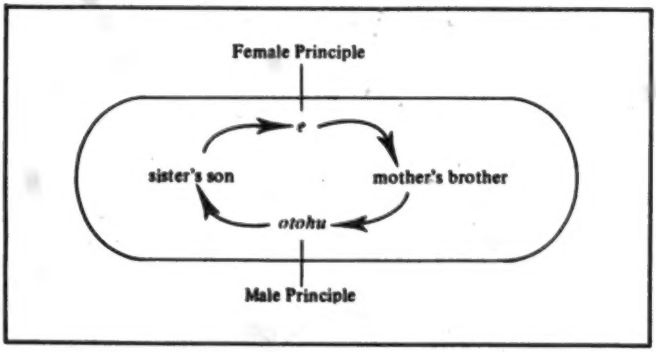
In the last five chapters exchange has been discussed largely on the assumption that it occurs on two levels. First, it occurs on the mythico-religious level where exchange relations are stated in the form of binary oppositions or possibly also some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



As an example of the operation of this model, we may summarise the discussion concerning the sacred flutes and the *otohu*. On the mythical level there is a binary opposition between a male and a female principle. On the social level there is a relation between mother's brother and sister's son, which is mediated (*a*) by the mother; (*b*) by the gift of an *otohu*. On the technological level, there is opposition between a male and female initiation flute (respectively *otohu* and e = mother). These complex interrelations are shown with great economy in the following diagram:

MODEL 34



The objects of mediation under discussion in the preceding chapters have been mostly material objects, but the model is by no means confined to these. It is equally applicable to social objects of mediation. Indeed, in model 34, the word *e* appears in a double sense: as one of the two initiatory flutes, i.e. a material object, but simultaneously as 'mother', a social object. In the taro sociogram, we introduced a series of human mediators between a set of distant but equal exchange partners (model 20).[A] In discussing the *aguma*, we found the same pattern between a set of distant but unequal exchange partners (model 31).[B] Similarly, we may regard the mother's brother as mediator between initiand and the spirit world.

Some of the most important social exchanges are those which are mediated by a woman who is a sister of one of the partners and the wife of the other. We have already looked briefly at this type of exchange when discussing the coconut and betelnut myth (model 29).[C] In thus equating woman with an 'object of mediation' we are not thereby postulating any essential inequality between men and women except in as far as the Orokaiva happen to be patrilocal and patrilineal, so that it is the women, not the men, whose sexual role places them in a position of mediation. We are merely suggesting that two persons standing in a relation of *dambo* mediate their social relationship through a woman with which each, in a different way, is identified, one sexually and the other non-sexually. The asymmetry is balanced out by a counter-prestation on the part

A [See p. 182, Cat. 881--Analyst]
B [See p. 135, Cat. 431--Analyst]
C [See p. 171, Cat. 824--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 of the 'husband' who either gives a woman in exchange (direct marriage
121 exchange) or else makes some kind of reparation for having deprived his
562 exchange partner (generalised marriage exchange).
582

REFERENCES

824 1. Erikson, describing 'the beginnings of identity' in the adolescent, comes
571 rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

881 2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

000 3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

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Mountain Orokaiva

CHAPTER X
MARRIAGE

1. *Introduction*

In analysing a system of exchange, our first task is to find the rules governing the objects of mediation. I have not dealt with all objects used by Orokaiva for the mediation of social exchange, but I have given enough examples to show both a method and a pattern. The effect of the rules is to place constraints upon the exchange partners. Examples of such constraints may be found in each of the five preceding chapters. In making land transfers a man is constrained, in the main, by the love for his sister who wants his land for her children. In the daily ritual of taro gifts, householders are constrained by their quasi-commensal neighbours. Gifts of pig meat are constrained even more severely by a taboo on eating pork reared by oneself or a close relative. The constraint in coconut and betelnut gifts is mainly felt after a death, with affines as preferential recipients. The *otohu* sets up constraints through the moral pledges made at the time of its transfer to the owner.

Each of these constraints compels the individual to make commitments outside the narrow confines of the small agnatic group. Land transfers to the sister, if hereditary, place the sister's son in a position of dual allegiance to the agnatic and uterine group. The taro gift network involves a majority of non-agnates and establishes a chain of non-agnates who become vicariously quasi-commensal. The obligation to keep pigs for mediating critical social relationships ensures that means are available for setting in motion new cycles of positive reciprocity, either with strangers or with former enemies. My analysis of the coconut-betelnut myth shows a commitment on the philosophical plane: it shows that Orokaiva do not view exchange merely as a social and economic expediency, but as expressing, in symbolic thought, the interdependence of the sexes. Finally, the existence of two basic identity symbols (*hae* and *otohu*) implies a profound psychological commitment to the exchange system commensurate in Orokaiva society with the commitment to the corporate group.

I have spoken, in each case, of constraints because there has been a tendency, in the study of New Guinea societies, to overemphasise the degree of freedom. A man does not give his land, his taro, his pigs, or his *otohu* to just anyone. There are very strong pulls in the direction of the corporate group and these are balanced by very strong pulls in the direction of the exchange system. Nor is it correct to assume that the former are determined by structural rules whereas the latter are determined by economic interest. A study of the objects of mediation has already shown that there are rules which make commitment to the exchange system either obligatory or preferential. Yet all the evidence brought forward so

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Mountain Orokaiva

431 far has presented this exchange system as a set of individual, though
437 interconnected, networks.
121 If our analysis cannot go beyond the identification and description of these networks, we shall clearly have failed to establish exchange as an explanatory principle for the ethnography of the Orokaiva. The success of our enterprise therefore depends on the discovery of some constraints, existing within the exchange system, which are placed upon individuals in virtue of their membership of some corporate group. If such rules exist at all, one may assume that they are most likely to be found in the marriage system.

583 Here we enter somewhat controversial ground. In the introduction to a
121 symposium on marriage in the New Guinea Highlands, Meggitt has recently (1969) asserted that, in that area at least, positive marriage rules do not exist but only what he calls 'contingent preferential arrangements'. If his arguments are accepted, there would be no positive marriage rules among the Orokaiva nor, as far as I can see, anywhere else in the world. His arguments hinge on his use of the terms 'preferential' and 'prescriptive', but even if we revert to the definitions given for these terms by Lévi-Strauss (1967: xvii–xxiii) a very careful and detailed investigation is required in order to determine whether or not the Orokaiva have any preferential rules of marriage and exogamy.

It may be best to start with Lévi-Strauss' own discussions regarding the problems of Melanesian marriage rules. When he wrote *Les structures élémentaires de la parenté* (1949), the ethnographic data from which a general model for the Melanesian area could have been securely constructed were lacking. Nonetheless Lévi-Strauss wrote a brief passage on this subject and ventured a bold hypothesis. The hypothesis seemed especially bold because at that time there was only one ethnography that could be quoted to support it, a description by F. E. Williams of the apparently aberrant kinship system of the Koriari (1932). I think nonetheless that his hypothesis is a most useful starting point for the analysis of Melanesian systems:

> *La Nouvelle-Guinée, et les régions avoisinantes, présentent, à un degré exceptionnel, un phénomène que Williams a decrit sous le nom d' "affiliation sexuelle", c'est-à-dire une différentiation de statut entre le frère et la sœur, l'un suivant la ligne paternelle et l'autre la ligne maternelle. Il est impossible d'interpréter ce phénomène en fonction de l'échange restreint: mais il devient très clair quand on l'envisage sous l'échange généralisé, puisqu'en mariage matrilatéral comme en mariage patrilatéral, le frère et la sœur suivent des destins différents. L'étude des phénomènes d'affiliation sexuelle ... permet donc de définir, à travers tout le monde mélanésien, une sorte de faille de l'échange généralisé ... Toute l'aire orientale, "océano-américaine", comme on peut le nommer, forme donc une sorte de théâtre, où se rencontrent échange restreint et échange généralisé, tantôt pour s'opposer, et tantôt pour se combiner* (1949: reprinted 1967: 534–5).

Since 1949, Lévi-Strauss has made several further contributions to the analysis of Melanesian societies. In the second edition of *Les structures élémentaires de la parenté* he suggested that *la ligne de partage entre les sociétés traditionellement appelées "primitives" et les sociétés dites "civilisées" ne coincide pas avec celle entre "structures élémentaires" et "structures com-*

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OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures *'ne relévent pas des structures élémentaires' (ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present.

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions.

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*.

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like.

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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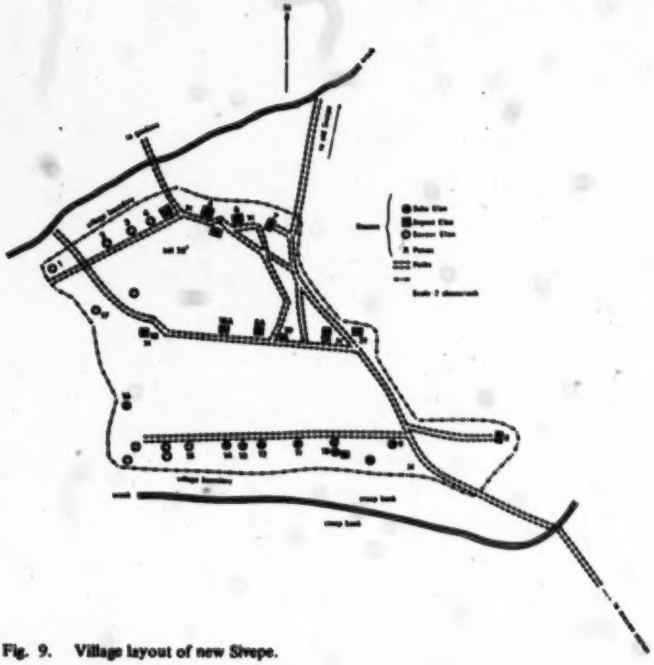

Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

It is obvious, first of all, that the Orokaiva rules concerning bilateral cross-cousin marriage and reciprocating pairs of groups are not free from ambiguity. The term *simbo* is not synonymous with the term 'cross-cousin'. Not all societies which have reciprocating pairs of groups have direct marriage exchange, as Lévi-Strauss showed in respect of the Koiari. The fact that the Sivepe people were partners in no less than twenty-five reciprocating pairs of groups in two generations poses the question whether this apparent instability corresponds to a structural regularity such as the 'sex affiliation' of the Koiari. Furthermore, in view of Lévi-Strauss' analysis of the African *lobola*, we need to investigate whether the Orokaiva institution of bridewealth (*dorobu*) is consistent with the principle of direct marriage exchange. Such inquiries would not serve to deny the reality of this principle in Orokaiva culture but rather to raise the possibility of the combined presence of direct and generalised exchange.

6. *Kinship Terminology*

Though Williams' description of Orokaiva kinship terminology is generally very accurate, it is deficient in two respects: his definition of the term *simbo* (quoted in section 4 above) is inconsistent with Orokaiva usage and he gives no terms for female speakers. Yet it is in these two areas that we find the key to Orokaiva marriage. We have seen that a *simbo* is – always and exclusively – a marriageable consanguine. If Williams were right in saying that a *simbo* is also – always and exclusively – a cross-cousin, then a rule of bilateral *simbo* marriage would be unambiguously equivalent to a rule of bilateral cross-cousin marriage. If the term *simbo* could be positively defined as a bilateral category of cross-cousins (as the Aranda do), then again we would have a rule of bilateral cross-cousin marriage. In the absence of a positive rule, however, the Orokaiva kinship system could not be regarded as 'elementary' in Lévi-Strauss' sense of the term, and thus it would not contain a true rule of bilateral cross-cousin marriage.

Again where such a rule prevails consistently, there would seem to be no need of special affinal terms. Williams, entirely correctly, gives a set of distinct affinal terms for male speakers which would suggest that the whole system is based on generalised rather than restricted exchange. Williams' explanation of this apparent discrepancy appears to be an evolutionary one: *dorobu* came first (and established the terminology) while *mine* developed later. As we shall see, the reality is more complex, as the Orokaiva use two types of affinal terminology: one type which is consistent with generalised exchange and another which is consistent with direct exchange. The former of these two types of terminology is in regular use by men and the latter by women. This fact is consistent with the theory that the Orokaiva marriage system is a combination of generalised and restricted exchange.

For the purpose of a componential analysis of terms we shall consider only terms used in face-to-face interaction by *ego* to address an *alter* when no other relative is present. The following dimensions of contrast apply:

Consanguine(C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.

[TEXT CONTINUED ON PAGE 205]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

reciprocating pairs of groups in a state of pseudo-commensality. They share not only the land but also its products. The symbolic significance of taro, as set out in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social structure. Social structure, in the sense in which I am using the term, is most clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to the structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER XI

EPILOGUE

I have not presented in this work all the empirical facts that may be elucidated with the proposed model of Orokaiva society. I have had space to discuss only a small minority of the myths which are at my disposal but there are a number of others that are more readily understood in the light of my analysis of social structure. The description I have given of corporate activities in patrilineal descent groups has been rather summary, even though much additional evidence could have been marshalled presenting them as competitive segments of a wider non-agnatic collectivity. The rather interesting institution of hereditary friendship, between both men and women, has not been described although this forms a not unimportant part of the total exchange network. Indeed, I have not reported the exchange network in much detail at all, largely because this has already been done in my earlier work entitled *Cultural Consequences of a Volcanic Eruption Experienced by the Mount Lamington Orokaiva* (1969).

Many of the facts reported in this earlier work can be more adequately explained in the light of the analysis offered in the present one. Orokaiva reactions to the eruption, for instance, are not easy to account for unless we can explain the powerful driving force of the *iji eha* ideology discussed in Chapter IV above. The earlier work also did not elucidate the relationship between Orokaiva and the white man. It was made clear that this relationship is an ambivalent one, positive when the Orokaiva leader plays the roles of councillor, village constable or 'committee', but negative when he plays the role of organiser of a co-operative or of transmitter of messages with a millenarian import. Although these roles were described in detail, I perhaps did not make it clear enough that they are often played by the same individuals at different times, or at the same time, and that even if they are played by different individuals, these are not necessarily thereby placed in a position of conflict between one another.

We can, however, easily account for this ambivalence if we remember that social exchange between Orokaiva and white authorities is subject to the laws of the exchange system: there is an alternation between positive and negative cycles. Some members of an Orokaiva group may be in a positive cycle of reciprocity with white authority while others are in a negative one. This does not necessarily mean that the members of the Orokaiva group are in conflict with each other. The same members of a community may support both a co-operative to which the administration objects, and a councillor who acts as an administrative mouthpiece.

The facts are that the administration provides valuable benefits (and the mission likewise) so that there is a sound basis for cycles of positive reciprocity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

be valuable as mediator with the *dema* of the *iji eha*. In 1966–7, millennarian leadership among the Orokaiva was relatively unimportant and thus may be ascribed to a relatively high degree of positive reciprocity between Orokaiva and the white authorities. Among the more important benefits received by the Orokaiva were: the success of cash cropping, especially in coffee, the rapid extension of education, health and other valued services, and the rising influence of the Higaturu Local Government Council which was viewed as a gift from the government to the Orokaiva.

A significant growth of millenarianism would therefore indicate a growing emphasis on negative reciprocity. How should it be dealt with? According to the Orokaiva ethos, the authorities should make gifts or concessions to expiate their unsatisfactory performance. Repression of the movement would only perpetuate the negative cycle. Far from regarding the movements as a hindrance to development, I would regard them as a political process: consciously or unconsciously, they are means of bringing pressure to bear upon the authorities. The ultimate pressure is obtaining the benefits of development.

Knowledge of the rules of Orokaiva social exchange may help us to understand not only social but also political and religious patterns because exchange, in the sense in which I have used the term, represents a world view and penetrates a wide range of institutions and situations. If my method is applied to the analysis of millenarian phenomena, those phenomena would need to be described as essentially a mode of pursuing *ivo*. Now I have shown (Chapter VII) that *ivo*, whether under its aspect of expiation or communion, is fundamentally a magical device for the mediation of social relationships. It would follow from this argument that millenarianism has as its ultimate aim the management of social relations with white power bearers. This manipulative aspect of millenarianism is brought out clearly by Burridge (1960) who presents each new phase of the movements in Tangu as an attempt to establish more effective social relations with white powers. I cannot attempt here to prove with any finality that millennial movements are objects of mediation in a negative exchange cycle and that this would explain all their social, economic, political and religous characteristics. My only purpose is to suggest that the method proposed in this work can generate fresh and perhaps interesting hypotheses in many subjects of current interest in Melanesian ethnography.

Throughout this work, I have been concerned to demonstrate a method rather than to expound a theory. If, in conclusion, I shall now make a few theoretical remarks, this is to acknowledge debts rather than to develop new propositions. My debt to Lévi-Strauss is so obvious that little needs to be said about it. I have utilised the methods advocated in virtually all his major works. My use of the concepts of exchange and reciprocity as the basic principles of my analysis is due to the inspiration of Lévi-Strauss.

Yet Lévi-Strauss' work has less to say about the methods of ethnography than about the structural analysis that must follow after the ethnography is completed. The profound implications of his thought for the practice of ethnography remain to be elaborated. Here a number of his followers have made valuable contributions which I have found very helpful. I shall confine myself here to mentioning a few examples. Dumont has shown, by practical demonstration, that in societies where positive marriage rules exist, affinity is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 transmitted from one generation to the next as are consanguineal ties (1957*a*, 1957*b*). Marriage thus acquires a diachronic dimension, a principle I have utilised in analysing Orokaiva social structure on the basis of the marriage rules.

Dutch scholars such as van der Leeden (1960), Pouwer (1955) and Serpenti (1965) attempted to apply Lévi-Straussian methods to the study of New Guinean societies and at once met with a new difficulty: where unilineality is weak or non-existent, an ethnographer using alliance theory is no more able to find rules[2] which unambiguously determine the membership of marriage classes than a descent theorist can determine the membership of corporate groups. In order to overcome the difficulty, Pouwer has developed what he calls the 'configurational approach', a concept I found very useful. He starts from the supposition, derived from Lévi-Strauss, that there are 'universal mental structures' upon which the social structures found throughout the world are based. The diversity of cultures is explained by ecological and historical contingencies. Lévi-Strauss, however, has actually proposed only very few of these universal mental structures: the requirement of a rule that shall be binding, the notion of reciprocity and the synthetic nature of the gift. Pouwer argues that an ethnographer needs to assume a good number of further universal mental structures if he is to make sense of actual societies (Pouwer 1965). For the analysis of New Guinean societies, he adds to Lévi-Strauss' short list: the vertical ordering principle (descent), the horizontal ordering principle (siblingship), the spatial ordering principle (association with land) (Pouwer 1966). Societies vary according to the relative weight they give to each of these structuring principles. If one principle is clearly dominant, the society will have a well-developed system of clear rules governing social behaviour.[3] On the other hand, if several principles are of somewhat similar weight, rules will often tend to be ambiguous or contradictory. Pouwer would not agree that societies of the latter type (under which he classifies New Guinea societies) are 'loosely structured'.[4] He argues instead that the structure has the form of a configuration in which the structuring principles appear as parameters limiting an otherwise free field of action.[5] In order to explain decisions taken within this free field, Pouwer appeals to Firth's principles of social organisation.[6]

I have used the 'configurational approach' by explaining Orokaiva society as the resultant of the interaction between structural principles: agnation and reciprocity. Pouwer's other two ordering principles (spatial and horizontal) have not entered my analysis as I did not wish to complicate it unduly. The spatial ordering principle probably becomes important only if land is in shorter supply than is usual among Orokaiva.[7] The 'horizontal principle' (especially the brother-sister bond) is highly important but I preferred to treat it as the pivot of the exchange system. Burridge (1959) treated siblingship as a basic structural principle among the Tangu[8] but also demonstrated the symbolic equivalence between the brother-sister and husband-wife relationships. I would therefore suggest, at least provisionally, that Pouwer's 'horizontal ordering principle' is more conveniently dissected into (*a*) bonds between siblings of the same sex, where the principle of seniority is usually emphasised, and which may therefore be accounted for by the vertical ordering principle; and (*b*) cross-sexual sibling bonds which may be accounted for by the principle of reciprocity in the same way as conjugal bonds.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

As I constructed my configuration of Orokaiva society, on the basis of the principles of agnation and reciprocity, it became obvious that the principle of reciprocity is the stronger one in all social relationships except those within rather small corporate groups. This discovery was by no means novel in the study of Melanesian societies. It was made and elaborately documented by Malinowski in his study of the Trobriand Islands. Malinowski perhaps carried his theoretical reflections upon reciprocity furthest in his book on *Crime and Custom in Savage Society* (1926) where he called reciprocity 'the basis of social structure, and explained it by 'the inner symmetry of all social transactions' and 'the inner symmetry of structure (which) will be found in every savage society'. When Schapera (1957: 147) called the use of this phrase 'extremely rash', he was justified because Malinowski seemed to ignore the vertical ordering principle which is dominant in many societies (including those in which Schapera had the greatest interest) and for which Malinowski's generalisation, of course, does not hold.

Nonetheless, we must recognise that for societies where the principle of reciprocity is dominant Malinowski's work is still highly authoritative. He was certainly right in objecting to the overemphasis placed on corporate group relations by some of his immediate predecessors such as Hartland and Rivers. He was also, in my opinion, extremely wise in his choice of the elements of culture which he singled out for special consideration. His first major work on the Trobriand Islands was, in effect, a full analysis of two objects used for the mediation of social exchange: the necklaces called *soulava* and the armshells called *mwali* (*Argonauts of the Western Pacific*, 1922). This was followed by the work already referred to in which it was shown that conflict resolution does not occur primarily by the application of a system of norms but by transactional processes where moral codes appear as rhetorical devices. Malinowski's book on *The Sexual Life of Savages* (1929) was a continuation of this theme in the area where enduring structured patterns of reciprocity, buttressed by elaborate, clearly formulated codes, are most prevalent, namely the area of affinal relations. He concurrently (1965) turned his attention to mythology and magic, treating mythology as the charter of codes of exchange and magic as an unconnected set of acts for the efficacy of which the myths were the charter.

Malinowski treated magic as determined by the structural principle of reciprocity and subordinated to the dynamics of social exchange. He wrote:

> There is not one single magical act which is not firmly believed to possess a counter-act which, when stronger, can completely annihilate its effects. In certain types of magic . . . the formulas actually go in couples. A sorcerer who learns a performance by which to cause a definite disease will at the same time learn a formula and the rite which can annul completely the effects of his evil magic. (1952, reprinted 1954: 86)

Unfortunately, after developing this insight, Malinowski proceeded to treat magic as a pseudo-science without recognising its implications for the theory of reciprocity.

Perhaps more by accident than by design I have in the present work indulged preoccupations very close to those of Malinowski. I do not even have any fundamental quarrel with my predecessor's description of magic as a 'pseudo-

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

12/ [754] science' as long as I may add the qualification that this 'pseudo-science', at least among Orokaiva, is mainly concerned with the manipulation of social relations. As all misfortunes are explained by Orokaiva as sorcery, and all sorcery serves to mediate negative reciprocity, i.e. enmity either on the part of the living or the dead, therefore all counter-magic is similarly part of a cycle of negative or positive reciprocity. If the counter-magic is made by the victim of sorcery, it mediates a continuing negative cycle. If the counter-magic is made by the same person who made the original black magic or *saruka*, this is done in response to conciliating gestures by the victim and signifies that the exchange has shifted into a positive cycle. Sorcery is not considered good or evil in itself nor does Orokaiva society have clearly defined norms to govern behaviour in most of the situations where it occurs.[9] It is easier to assume that the sorcerer (or his principal) has one idea of what the norms are and the victim has a different idea, and that the society will continue to have conflicting sets of norms irrespective of how the particular conflict is resolved. In some circumstances it is advantageous to shift the social relationship into a positive cycle, whereas in other circumstances it is more advantageous to fight magic with magic.

Having thus acknowledged Malinowski as one of the ancestors of the present work, I should also acknowledge the theoretical work in both sociology and anthropology which helped me to reanalyse Malinowski's data in the manner instanced above. Neither Lévi-Strauss nor his immediate followers were much help in this respect as they have not, until very recently, given detailed attention to questions of process. The study of exchange cycles, as developed in the present work, would be of little value if they were nothing but consequences of enduring structural regularities.[10] In that case there would be no difference between my exchange cycles and the 'situational analysis'[11] developed by Gluckman, Turner and van Velsen (1964). 'Situational analysis' provides meticulous data concerning conflicts involving individuals but it is always assumed that the resolution of the conflicts reasserts rather than changes the existing corporate norms.

We have seen, however, that the corporate norms of Orokaiva society are constantly changing. Clans fuse and split, relations with uterine kin go through positive and negative cycles, moiety systems arise and disintegrate, enemies become partners in alliance systems while the only enduring corporate group, the entended family, where 'situational analysis' would yield satisfactory results, is too narrow a unit for the student of the dynamics of society. Within the extended family, conflicts may actually reassert and strengthen group values. But even in a four-generation agnatic group splitting up of the group after a quarrel is normal and far from being a failure of solidarity. It is part of an atomising process which causes no crisis in the overall exchange network.

In these circumstances the prevailing pattern of social relations can be accounted for most easily by reference to a past sequence of positive and negative exchange cycles. When I speak of structure I am not referring to this ephemeral pattern of social relations but to the laws underlying the generation of the positive and negative cycles. In my discussion of the marriage system, I presented the structure as cyclical alternation of direct and complex generalised marriage exchange. One may call this the law of the operation of the marriage system. On the other hand, when I described the prevailing social organisation of

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe and emphasised its resemblance to a moiety system, I explained this form of organisation by a succession of exchange cycles through which it evolved from an earlier situation when Jegase and Seho were not moieties in any sense but enemies.

This approach to the study of process derives from the anthropologists Barth (1959, 1966) and Belshaw (1967, 1970) and the sociologists Homans (1961) and Blau (1964). The relationship between the two disciplines has been complex one as Homans and Blau tend to use anthropological models in the development of their theories and Barth and Belshaw have been significantly influenced by the sociological clarification of these anthropological models. I shall discuss briefly these theories, taking Blau as my starting point. Blau writes: 'Human beings tend to be governed in their association with one another by the desire to obtain social rewards of various sorts, and the resulting exchanges of benefits shape the structure of social relations' (1964: 18). Blau distinguishes two types of benefits: 'extrinsic' and 'intrinsic'. Benefits of the former type are, in principle, detachable from the association itself, whereas a benefit is 'intrinsic' when the association itself is an intrinsically rewarding experience. In intimate relations of intrinsic significance 'individuals often do favours for one another not in the expectation of receiving explicit repayments but to express their commitment to the interpersonal relation and sustain it by encouraging an increasing commitment on the part of the other' (*ibid.*, 6). Explicit repayment is more important when extrinsic benefits are being exchanged. In my work on the Orokaiva I have dealt mainly with relations where intrinsic benefits were included in the exchange.[12]

Blau would not argue that intrinsic exchange is more 'disinterested' or 'altruistic' than extrinsic exchange. Rather, he would say that in the former case partners are more interested in the association itself than in specific benefits. The latter, Blau says, 'are sometimes primarily valued as symbols of the supportiveness and friendliness they express, and it is the exchange of the underlying mutual support that is the main concern of the participants' (*ibid.*, 95). Even in this case, however, one may speak of an exchange of benefits, as each partner offers 'support' to the other.

Blau uses this theory of social exchange to explain various forms of stratification and inequality. Inequality arises when one person needs something another has to offer but has no resources needed by the other, or needed to the same degree. What can a person do when he is unable to reciprocate? 'First, he may force the other to give him help. Second, he may obtain the help from another source. Third, he may find ways to get along without such help.' If none of these possibilities is open, the person has only one course of action left: 'He must subordinate himself to the other and comply with his wishes, thereby rewarding the other with power over himself as an inducement for furnishing the needed help' (*ibid.*, 21–2). In this way Blau explains how persons may become invested with social power, authority, influence, respect and prestige. In unequal relationships there is an imbalance in the benefits the two persons are able to offer each other; at the same time there is a compensatory power imbalance. The total association may nonetheless be said to be in equilibrium as it is gratifying to both parties. The weaker party offers such benefits as compliance, deference and respect. Unequal relationships of this kind are what Blau calls 'unilateral', as

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 one of the partners always offers one type of benefit (e.g. compliance) whereas the other partner always supplies a different type (e.g. protection). A great many exchanges discussed in this book are 'unilateral' in this sense.

Gouldner, who calls exchanges of this sort 'heteromorphic', rightly points out (1960: 172) that their equivalence cannot be determined objectively but only by actors in the situation. All we may objectively discover is whether they are both satisfied with their deal. If they are very dissatisfied they may break off the relationship or respond by negative sanctions such as sorcery, rebellion or suicide. Often such negative responses will be discontinued if the dissatisfied party is compensated and the 'balance' restored. Actors determine questions of equivalence by the principle of distributive justice, fundamental in my analysis of the Orokaiva data and stated thus by Homans:

> A man in an exchange relation with another will expect that the rewards of each man be proportional to his costs – the greater the rewards and profits of each man be proportional to his investments – the greater the investment, the greater the profit. (1961: 75)

Sociologists have carried out many empirical tests, described by Homans and Blau, to show that social relations follow economic principles of this kind. Although the tests were done with individuals from Western cultures, usually in the environment of a small groups laboratory or an industrial enterprise, Homans and Blau have both argued that the principles are of universal validity. I doubt whether anthropologists would dispute this. On the other hand there has been a tendency for anthropologists not to become absorbed in such invariant social phenomena as it is not immediately obvious how their study could help to explain differences between cultures; in most anthropological theory, culture is treated as a variable.

Yet virtually all anthropological work makes assumptions at one point or another about the universality of some underlying mechanisms of human behaviour. In particular, implicit assumptions are constantly being made in anthropological works about what men find rewarding, not just as members of a particular society but as members of a species (Homans, *ibid.*, 383).

Several schools of anthropology have recently attempted to make such assumptions explicit. The ethnoscientists seek to do this by demonstrating their applicability in every single culture they study. Lévi-Strauss seeks to isolate a set of universal mental structures through his present mythological studies. Firth has postulated a number of universal principles of social organisation. Barth and Belshaw have adopted the social exchange theory of Homans and Blau as the basis for an anthropological theory which treats social behaviour as basically economic and which aims to explain social forms by social process (Barth) and to measure the performance of social systems (Belshaw). While this anthropological theory does not significantly diverge from Homans and Blau, it develops in more detail an explanation of the genesis of value systems. It exposes as questionable a traditional assumption made by anthropologists that the value systems with which they are dealing are in a state of perfect integration. Barth showed the co-existence of several 'paradigms' (i.e. value systems) in the same culture and argued that the relative priority of these paradigms depends on transactional contingencies.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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We are thus able to understand Pouwer's 'configurational approach' from a wider perspective. At any one time, a number of paradigms are present in a culture. There is no reason why they should be integrated. After a given time, a number of transactions take place and if conditions change one paradigm may acquire relatively greater weight than the other. In our study of the Orokaiva we found that this was happening with respect to the paradigms of direct and complex generalised exchange. We found two types of changes: a cyclical movement between the two paradigms caused by the internal dynamic of the system and an irreversible change under the impact of an external force. Both types of change were predictable from the model: a cyclical change was determined by the forces within the model itself whereas the irreversible change was predictable from our knowledge of the external force (Australian intervention).

Barth rightly argues that such predictions are possible only if our model of the society in question is economical and reduced to very few basic elements. ('We should not attempt to elaborate a list of all the empirical data on observed relations.') The only weakness in his theory seems to me to lie in his method of arriving at the model. In his essay *Models of Social Organization* he describes his procedure in two different ways which seem contradictory. Taking the example of descent groups and unilineal descent in the Middle East, he first derives his model from a rather familiar discussion by Radcliffe-Brown (Barth 1966: 23). He implies that this theoretical knowledge suffices for the construction of the model. After demonstrating how this simple model can be used to explain why the structure of one Middle East society changed while another rather similar one did not, Barth shyly admits that the Radcliffe-Brown proposition was perhaps not as obvious a basis for his model as he suggested at the outset:

> The form of descent groups and political corporations may be shown to vary according to the clear and definable – and perhaps superficially seemingly insignificant – differences with regard to the specific character of descent rights' (*ibid.*, 31).

If the differences were 'superficially seemingly insignificant', how then did Barth find out about their 'real' significance? It would seem that Radcliffe-Brown's essay on 'Patrilineal and Matrilineal Succession' was not the sole genitor of this model but that Barth (*a*) had to collect vast and precise field data; and (*b*) had to reduce the data to a rather abstract model, which reveals the basic elements underlying the social system. The 'minimum of specifications' to which Barth reduced the empirical data of Middle Eastern society do not differ in essence from abstract models such as might have been constructed by Leach or Lévi-Strauss. Transactionalism and structuralism are complementary rather than mutually exclusive as any structure may be regarded simultaneously and without contradiction from the viewpoint of its genesis and the viewpoint of its fundamental laws.[13]

This ends the catalogue of my principal theoretical debts. The exchange cycle model which I used as my principal tool of analysis closely resembles Barth's and Belshaw's concept 'transaction'. It is more elaborate as it makes explicit the distinction between social benefits (in the sense of Homans and Blau) and objects of mediation by which the recipient is induced to participate in social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange. Although I hope to have shown, in the present work, the practical utility of my model, I readily admit that this is no more than a first step. If intrinsic exchange gifts are 'primarily valued as symbols', as Blau plausibly maintains, then the study of the underlying symbolic systems appears to be a fundamental task for anthropologists. I have not attempted in this book to formulate rules for the construction of exchange cycles. Such rules undoubtedly exist: while the meanings given to the symbols are basically arbitrary, there are still regularities in the manner in which objects of mediation are chosen.

I visualise these regularities as rules of grammar in Chomsky's sense, i.e. an exchange cycle may be called 'grammatical' if it meets certain conditions of adequacy so as to be acceptable in the judgment of a member of the native culture[14] (Chomsky 1957, 1964, 1966). An inquiry into the nature of these conditions of adequacy appears to me a useful next step in the development of a method for the study of exchange.

REFERENCES

1 The fact that Melanesian co-operatives often have millenarian overtones has long been known to both anthropologists and administrators. (See, for instance, Burridge 1960 *passim*; Lawrence 1964: 209.) In the Northern District such somewhat millenarian co-operatives flourished especially shortly after the Second World War. They have been described briefly by Dakeyne (1966), and by myself (Schwimmer 1969: 85–9).

2 Barnes demonstrated this point, I think convincingly, in his well-known essay 'African Models in the New Guinea Highlands' (1962), and in his subsequent rebuttal of Meggitt's counter-claims based on the Mae Enga case (Meggitt 1965, Barnes 1967).

3 Though I do not believe that Orokaiva society can be usefully analysed in this way, I ought to mention that it was done in recent years in the study of Mae Enga (Meggitt 1965), Matupit (Epstein 1964), and Huli (Glasse 1959, 1962).

4 For this concept see also: Brown (1962), Cook (1966), Langness (1964), Newman (1964), Ryan (1959), Vayda and Cook (1964). Barnes (1962) likewise holds that 'apparently arbitrary processes' determine the organisational arrangements of New Guinea peoples. I am more inclined to think that we find an excess of rules and an inherent ambiguity of the rules, as Pouwer also believes. Groves (1963) gives a good example of this tendency among Motu descent groups. Scheffler's analysis of Choiseul society (1964) is also illuminating in this respect.

5 Pouwer provides an enlightening example of his configurational method in his analysis of a Star Mountains tribe (1964). Scheffler's approach (1965) is also configurational. Burridge's studies of Tangu social structure were also in effect following the same viewpoint, though he considered siblingship the dominant principle (Burridge 1957*a*, 1957*b*, 1957*c*, 1957*d*, 1958).

6 'What the concept of social organisation does is to focus on those aspects of dynamics or process in which *choice* is exercised in a field of available alternatives, resources are mobilised and decisions are taken in the light of probable social costs and benefits.' (Firth 1964: 17)

7 For an example of this approach see Salisbury 1956, 1962: 83–4. The theoretical implications of such cases have been clearly demonstrated by Leach in *Pul Eliya* (1961).

Foreword

We were aware before beginning this study that communal plantations in the Northern District had been a failure. The Research Unit is generally more interested in successful ventures than in unsuccessful ones and this is the only failed experiment to have been included in our current land study programme (which includes more than twenty sample studies in various parts of the country). The reason for this study was that detailed comparative studies were being undertaken with other approaches to cash cropping among the Orokaiva and a full comparison could not be made without the inclusion of the communal experiment. 121

For assistance in the field I am particularly grateful to Mr. Edric Eupu and Mr. Cromwell Burau as well as to the people of the many villages we visited in the course of the study. Mr. Max Rimoldi kindly assisted with research from early published reports. The co-operation and interest of the District Commissioner, Mr. L. Williams, and other officials, missionaries and settlers is acknowledged with gratitude. 128 [114]

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245 operated for several months but broke down when the Hoiwo'undi, [578] who felt that they were entitled as landowners to some extra share of the proceeds, again forbade members of other sub-clans to enter the coffee garden.

Since that time only the coffee boss and his family have ever picked the coffee, and they only occasionally. No maintenance has been carried out for some years. The Hoiwo'undi people say they would like to take full control of the block and divide it into individual plots - one for each of the six men in the sub-clan. They would be prepared to grant a portion of the block to the related Akute'undi of Ongoho village who 578 were planting food crops on some of the land at the time the coffee project was started. Some Akute'undi claim that the land is, in fact, theirs exclusively. The other sub-clans want separate and equal divisions for each of the participating sub-clans, arguing that all cleared and planted the coffee. It is unlikely that agreement will be reached.

●121 We subsequently paid brief visits to sixteen other plantations which had been gazetted pre-war to determine the nature of the problems which had led to their abandonment. As time did not permit of detailed investigations, we regard the results as indicative rather than definitive. Details of the situation are set out in Appendix A.[1]

1. [See Category 423, pp. 37-40--Analyst]

agricultural techniques of cash cropping and to regular patterns of work. It is true that most of the individual plantings of coffee since 1956 were made with seeds taken from the old community blocks where the techniques of coffee husbandry had been learned, but it was there also that the people had acquired their distaste for cash cropping.

The fact that all attempts at developing communal cash cropping among the Orokaiva have failed does not necessarily mean that communal planting is never practicable. What it does indicate however, is that to be successful, communal farming like any other farming system, must be coupled with appropriate organizational structures, sanctions and incentives as well as with extension, processing and marketing facilities.(1)

(1) Individual small-holdings do not of themselves lead to higher output. Since 1956, the nine Asigi villages which participated in the Ongoho community block have been encouraged to plant individual cash crop gardens. To date only 33 gardens have been planted (all of coffee). They cover only about 9 acres of land and contain 4,209 trees. Most are little better tended than the community block and fifteen are completely abandoned. Low price, distance to the market and lack of extension services seem to be responsible.

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepo village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 Work in the field was shared by Burau, Ferraris and Rimoldi.
114 Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepo[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepo for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sasembata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

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[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, ova'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land
131 is lower, flatter and comparatively poor and receives about 95 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

1 For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

2 Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

3 After Kaipi, Gulf District and Kubuna, Milne Bay District.

4 However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

time the process of readjustment and restoration was still a major question demanding attention. A few years later the third misfortune occurred.

The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:3). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

After the war, compensation was paid for property of the villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

For our investigations, Sivepo was chosen from the villages in the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

The interest which governed our own selection of a sample of manageable size from among Sivepo villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepo was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

121 that studied at Inonda - was the relationship between localized
125 landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

125 The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close
[614] kinsmen dependent on him (see Genealogy on p.52 for links between households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

121 Our observations at Sivepe were supplemented by less systematic
[124] interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[829] [1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

628 [3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organisation on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

24 178 [36] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

36 178 [12] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepa and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [65] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw, 1951.. [2] See Crocombe, 1964:31.

361 Moreover, the Yega cocoa project[1] has had a remarkable demonstration effect throughout the Orokaiva area; land development along similar lines as at Ombisusu is nearly everywhere under serious [657] consideration and, whenever undertaken, may be assumed to involve some degree of resettlement on individual blocks. It is now government policy in the district to foster this spread of smallholder projects as a matter of high priority.[2]

● 121 We have attempted some comparative discussion by introducing material on another area of closely settled populations, Chimbu.[3] Firstly, this provides contrasts in patterns of residence and mobility, the intensity of subsistence cultivation and in the results of changes in land use. The Chimbu example is an appropriate test case regarding arguments for certain necessary connections between local systems of agriculture, the stability of settlement and the potential for schemes for land development among these Orokaiva. The settlement pattern eventually formed after the eruption affords data for instructive but not conclusive comparison with the pre-eruption situation. Secondly, a consideration of Chimbu land tenure and local organization throws some light on our Orokaiva data.

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[1] This is fully discussed by Dakeyne 1965.

[2] In late 1964 the many individuals interested in these schemes showed considerable interest in the new Land Tenure (Conversion) Ordinance, 1964 (Edric Eupu: personal communication).

[3] See p.72 ff.

425 In such circumstances where the recipient and the original rightholder have lived in the same village or in neighbouring villages which are closely related and have worked together the land in question will be occupied by a person who has already established and maintained an accepted status in relation to the former landholder's group and who often has special relationships to particular kinsmen within it. At the time, accordingly, the transfer is to the recipient as an individual[1] and not to a patrilineal group. After the passing of a generation however it will come to be regarded as part of the heritable territory of his agnates. [428]

Moreover, there may be no immediate change in the use of the land involved and the extent of the rights being exercised may not be clarified for some time. In several cases we noted that a balance was eventually struck in dividing the land between claimants who were co-resident but distantly related patrikin of the deceased rightholder and those who were co-resident non-agnates.

Unfortunately, since our survey was short, we could gather little significant evidence of any disputes which may arise between parties with conflicting interest in such land. Our data include on the one hand instances where a transfer of rights still within memory has been confirmed over time and on the other the stated intentions of members of landholding groups as to the transmission of their rights.

Since the blocks involved are small and the fragmentation and interpenetration of the holdings of patrilineal groups is extensive, there is little concern for the maintenance of the continuity of the territory of these groups.[2]

[428] These transfers which are prompted by individual needs and demographic changes lend flexibility over time in the distribution of land which is a comparatively scarce resource. Population pressure has not resulted in greater conformity to the ideal system of patrilineal inheritance of available land.

171 (ii) Orokaiva and Chimbu land holding and residence compared.
121 We maintain that our account of the mountain Orokaiva shows not only the underlying contrast, in some respects, but also the significant characteristics in common with the Chimbu so that it

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[1] But in some cases a clear identification of the recipient may be arbitrary - e.g., to name him as either an affine or else a cognatic kinsman of the original holder is sometimes rather inaccurate, if the kin of these categories are father and son (see Appendix E, p.111).

[2] See Brookfield and Brown 1963:133.

A, [See Category 428, p.111--Analyst]

is appropriate to argue for the relevance of the hypothesis of Brown and Brookfield (Brookfield and Brown 1963:176-7;: Brown and Brookfield 1959:74-5) concerning the allocation of the land of Chimbu descent groups and the incorporation of non-agnates. They note that among the patrilineal Mae Enga the proportion of non-agnates allowed to reside on and use land in clan territory has been shown to decrease with an increase in population (Meggitt 1958:264) whereas this correlation does not hold for the territory occupied by the Chimbu clan.

In explanation they cite the facts that in Chimbu the major political-territorial unit, the tribe, has a larger membership than the Enga unit and contains not one but several exogamous clans. Political and ceremonial functions are concentrated in the exogamous Enga clan, which has sharply defined territorial boundaries. Only in Chimbu can land needs be easily accommodated in the political unit by means of land transfers between individual kin and affines in neighbouring clans, and it is significant that individual grants are more common means of redistributing land than among the Enga.

We will focus discussion of our evidence by proposing as a reasonable correlate of the largest Chimbu territorial and political unit the Orokaiva district, on the grounds that it was a territorially distinct unit within the tribe.[1]

The first premises assumed are that the scale of difference between Chimbus or Enga and the mountain Orokaiva in respect of pressure on productive land occupied by the heavy local concentrations of populations (e.g., in Orokaiva districts) is not of significance here; and that the characteristic method[2] of ensuring equitable distribution in both the Chimbu and Orokaiva landholding systems is by frequent transfers effected through interpersonal ties.

Moreover, several differences between the 2 societies should be noted:

(1) the district in our comparison may have included an estimated 1,000 persons as against 4,000 in some Chimbu tribes;

(2) unlike Chimbu there were no large-scale peace-time activities or ceremonial in which either the Orokaiva tribe or district emerged as a solidary unit (Brown and Brookfield 1959:5, 45 ff.);

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[1] We could have chosen the tribe, the inclusive effective political unit, without necessarily invalidating our comparison.

[2] Though not the only important method.

(3) the district had a compact territory (unlike the tribe) but its members were not all bound in mutual support in attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

(4) the Orokaiva clans which were scattered, often through several districts, did not have a single territorial focus and were radically different from a Chimbu clan; the latter is much more localised in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

In the present study an adequate discussion of the hypothesis requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. Much of our earlier discussion has dealt with residence and local organisation and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organisation between these Orokaiva and the Chimbu (or Enga, etc.).

Over and above these differences there is in the principles of organisation of the local communities of the 2 peoples an essential similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

171 breaks down between [these] clans with land loans, gifts
121 and membership changes....
62 (Brookfield and Brown 1963:158)

Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-5).

423 Individuality in land control is reinforced in both societies
171 by the absence of formal inherited positions of leadership and a pattern of interpenetrating territories is caused by processes of individual acquisition and retention (see Brookfield and Brown 1963:141, 156).

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 A registration scheme would function best as a mechanism for
423 resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no
[578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

●121 We contend that it is legitimate to extrapolate our local in-
[171] formation by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organisation of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 Finally, we wish to indicate the general significance of the
423 type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ25 Orokaiva QJ25

Preface

The New Guinea Research Unit has undertaken several studies among the Orokaiva as part of a programme of research into systems of land tenure and their relationship to economic development.[1] The present enquiry was designed to extend the information gained from these studies through an analysis of the organisation of work and the patterns of exchange among communities practising both subsistence gardening and cash cropping.

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More specifically, it was concerned to ascertain whether the requirements of the subsistence sector of the economy impose limitations on the expansion of activities in the monetary sector and, conversely, whether participation in the monetary sector involves restrictions on subsistence activities. Within this framework attention was directed to observing the extent of participation in commercial activities, how cash is used, whether periodic peaks of labour occur in the two sectors and whether there are common factors in the backgrounds of people cultivating cash crops. Brief consideration was also given to other phenomena influencing the relationship between the two sectors: the physical environment, the social system, the system of land tenure, the types of cash crops grown and the nature of the people's contacts with innovating agencies (principally the Administration and the Anglican mission).

Method of investigation

Simultaneous enquiries were conducted in two villages, Sivepe and Inonda, in the Higaturu Local Government Council area of the Northern District. Both had been the subject of earlier studies conducted under the auspices of the New Guinea Research Unit and much background information was available. Census data, an inventory of material possessions (including trees and livestock) and details of cultivated areas were collected. Daily records of all activities and transactions for the same individuals were entered on two schedules: (i) work organisation and (ii) acquisition and disposal of goods, cash and services. Diaries were kept to record

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[1] See New Guinea Research Bulletin, numbers 2, 4, 6, 11, 13, 16 and 17.

interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

The survey was conducted over three separate periods during 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of available rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activities.[2] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

The gathering of field data was shared equally between the authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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[1] In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

[2] It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

177 (a) Initial contact

The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

794 177 178 [491] [438] By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

Chapter 5

•121

Organisation of work and labour availability in traditional societies

Central to the economic investigation of behaviour are the concepts of productive and non-productive activity where production may be defined as 'the purposeful alteration and combination of physical material until it reaches some desired empirical state' (Udy 1959:2) and is applied only to the manipulation of those material resources considered necessary to sustain the economic system. Such a distinction permits a rigid assessment of labour requirements and potential surplus by eliminating all socially induced activities.

Work studies are commonly restricted to a consideration of the productive sphere but the approach adopted here is to treat the whole range of activities of the adult residents of the two villages while continuing to allocate each to one or other category. This will facilitate comparison of the data with other available material but avoid any limitations associated with the productivity concept and therefore misleading assumptions as to the level of activity among the Orokaiva and the nature of their economic system.

While the term productive is widely used there is no real consensus as to the type of activities it encompasses and, among dominantly agricultural economies, the range over which it has been applied extends from 'work performed on an individual basis' (as opposed to communal work and wage labour, vide Johnston 1967:23), through strictly agricultural work (Haswell 1953) to the production of food, clothing and shelter (Fisk 1962). In the present study the term is used essentially in the last sense, although it is further extended to cover household tasks (see Table 5:1).

Apart from the specific limitations imposed on data collection through restricting investigation to such a category, more serious criticism must be levied at the customary equating of the terms productive with economic, and non-productive with social or ceremonial activities, as applied to traditional societies, and therefore typing the former as work and the latter as leisure. Activities normally deemed economic are those associated with the production of goods and services in an industrial economy (i.e. those which can be priced by a monetary system). Yet in non-market

[TEXT CONTINUED ON PAGE 69]

Table 5:1

Activities covered by the survey and the categories to which they are allocated

Category Function	Activity: Group	Activity: Individual	Category Sector
Productive	Clearing		
	Subsistence gardening:	Fencing	
		Taro (plant, maintain, harvest, market)	
		Sweet potato (plant, harvest, market)	
		Yam (plant, maintain, harvest)	
		Minor crops (plant, maintain, harvest, market)	Subsistence
	Other subsistence food production:		
		Fishing	
		Hunting	
		Sago-making	
	Other subsistence activities:		
		Preparation of tools and equipment	
		Construction	
	Cash cropping:	Coffee (maintain, harvest, process, market)	External
		Rubber (harvest, market)	
	Paid work		
Non-productive	Household:	Washing	
		Cooking	
		Collecting firewood	
	Social obligations:	Marriage	Subsistence
		Death	
		Other	
		Visiting	
	Sick:	Personal	
		Care of sick	
	External agencies:	Purchasing	
		Council work	
		Meetings	External
		Church work	
		Church services	
	Miscellaneous:	Recreation	
		Other	
		Researchers	

121 subsistence societies those activities which provide the mechanism for exchange are generally excluded since it is assumed that the exchanges are of little economic significance. As will be demonstrated such an assumption is of doubtful validity.

In societies where labour is not specialised and subsistence production dominates, the social and economic threads are closely interwoven. All actions may be considered economic in that they are concerned with the 'maximisation of satisfactions',[1] while the close association of the networks of kin with processes of production, distribution and consumption precludes the drawing of a clear distinction between work and leisure. While the term productive is a useful parameter as applied particularly to material life and in contrasting the nature of the involvement in the subsistence and external sectors of the economy, it comprises only part of the total economy. Production and labour in traditional societies must be considered as an integral part of this broader system, perhaps following Conklin (1957:152) who stresses that Hanunóo 'mixed swidden farming...constitutes a pattern for living rather than only a means of making a living or a source of food or cash income'.

There is a complexity of motives underlying the various activities and to suggest that work is oriented simply towards obtaining material goods and achieving subsistence is to grossly misrepresent the situation. 'The pleasure of craftsmanship, the feeling of emulation, the desire for public approval, the sense of duty towards the community, and the wish to conform to custom and tradition, all these and more find outcome in economic action.' (Firth 1959:175.) The point is not simply one of theoretical significance[2] but is of considerable relevance to a consideration of the development potential in these communities, and it is with this in mind that attention here is directed to the whole range of village activities.

179 433 The IBRD report on 'The Economic Development of Papua and New Guinea' considers efforts should be directed primarily to the exploitation of the two major resources of land and labour, and states (1965:40) that

[464] The mobilization of unskilled indigenous labour for development should not be difficult; the manpower potential is large and there is evidence that many more workers could be recruited for wage employment than are now at work.

121 464 The thesis that a potential surplus of labour is concealed within the New Guinea subsistence economy has been developed by Fisk. While the data which follows vindicates his main argument, two

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1 See Burling 1962.

2 For a detailed discussion of this see Steiner 1957.

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

556 [25] [24] [43] [437] An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting 433 some of the needs of those without yams. In such a case there is no limit to the individual level of production although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. [241] This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

121

would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

125 The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself [124] while, at Sivepe, logistical considerations prevented more than 30 [123] to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

128 Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a way as to cover expected seasonal variations in activity patterns (see Fig.5:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

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[1] Twenty-six in the case of Inonda.

Chapter 9

The theory of reciprocal exchange and its implications for a market economy

121

Theoretical approaches to the analysis of subsistence economies were revolutionised through the work of Polanyi,[1] and his particular contributions to the field of economic anthropology have recently been reviewed by Dalton (1965). Polanyi sought to emphasise

> the uniqueness, historically, of uncontrolled market exchange as the integrating transactional mode of nineteenth century national and international economy...[by demonstrating that] in primitive and archaic economies, the institutions through which goods were produced and distributed in repetitive, structured fashion, were 'embedded' in - a subordinate part of - social institutions: that the 'economy' functioned as a by-product of kinship, political, and religious obligation.... [Production and distribution were organised in terms of] two broad transactional modes that Polanyi called reciprocity (obligatory gift-giving between kin and friends), and redistribution (obligatory payments to central political or religious authority which uses the receipts for its own maintenance, to provide community services, and as an emergency stock in case of individual or community disaster). Reciprocity and redistribution are best regarded as socio-economic transactional modes because they describe internal and external appropriations, allocations, exchanges, and movements of labour, land, goods, and services induced by specific social obligation. (Dalton 1965:2-4)

Polanyi's 'transactional modes' have been further refined by such anthropologists as Sahlins (1965) - although their 'moral' overtones are sometimes questioned - and they continue to serve as the principal mechanisms for the analysis of exchange in subsistence economies. Participation within a market economy represents a radical departure from these practices, and it is in terms of such considerations that Orokaiva exchange patterns are analysed.

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[1] See especially Polanyi 1944 and Polanyi et al. 1957.

431 572 574 only made with people from distant villages, who may or may not be kinsmen, and they always involve a visit to the party making the gift. This may be followed by a return visit at a later date but there is no necessary sequence or routine. Gifts made to relatives coming from a considerable distance to attend a mourning and those received as the specific motive for a visit (as in the case of Orokaiva going to the Managalase to receive di (feathers)) are both categorised as umbare.

121 Such exchanges and transfers of goods can be seen to operate within clearly-defined social contexts. Sahlins (1965:139) notes that 'A material transaction is usually a momentary episode in a continuous social relation'. He continues,

> A specific social relation may constrain a given movement of goods, but a specific transaction - 'by the same token' - suggests a particular social relation. If friends make gifts, gifts make friends. A great proportion of primitive exchange, much more than our own traffic, has as its decisive function this latter, instrumental one: the material flow underwrites or initiates social relations. Thus do primitive peoples transcend Hobbesian chaos. For the indicative condition of primitive society is the absence of a public and sovereign power: persons and (especially) groups confront each other not merely as distinct interests but with the possible inclination and certain rights to physically prosecute these interests. Force is decentralized, legitimately held in severalty, the social compact has yet to be drawn, the state nonexistent. So peacemaking is not a sporadic intersocietal event, it is a continuous process within the society itself....
>
> Even on its strictly practical side, exchange in primitive communities has not the same role as the economic flow in modern industrial communities. The place of transaction in the total economy is different: under primitive conditions it is more detached from production, less firmly hinged to production in an organic way. Typically, it is less involved than modern exchange in the acquisition of means of production, more involved with the redistribution of finished goods through the community. The bias is that of an economy in which food holds a commanding position.... It is the bias also of a domestic mode of production.... It is the bias of a social order in which rights to control returns go along with rights to use resources of production, and in which there is very limited traffic in titles or income privileges in resources. It is the bias, finally, of societies ordered in the main by kinship. (Sahlins 1965:139-41)

Individual exchanges are not, therefore, spasmodic acts. Together they form a system founded on the network of social relations. This

system, or at least those individuals who dominate it in terms of their control over the movement of the bulk of goods and services, serves to regulate the twin features of competition and interdependence among group members. This is achieved in the sense that the principle of sharing provides the group with the greatest security in time of need, and that of the disposal of goods (or capital investment), most of which are perishable, increases an individual's command over wealth and enables him to call upon it as required.

The basic difference between such an exchange system and a monetary one lies in the absence of any generalised medium of exchange and therefore of an open market where transactions are characteristically mechanical rather than moral. In order to develop such an economy it is apparent that the system of exchange must be altered, both to effect satisfactory linkages with the external sector and induce the technological specialisation necessary to substantially increase productivity. Yet it is widely considered insufficient simply to substitute cash transactions for direct exchanges of goods and services, because the particular system within which such transfers are effected inhibits commercialisation. Specifically social systems based on kinship are considered to incorporate 'levelling mechanisms' which inhibit 'aggrandizement by individuals or by special groups' because they 'have a way of scrambling wealth to inhibit reinvestment in technical advance, and this prevents crystallization of class lines on an economic base' (Nash 1966:35-6). Further, they are believed to be incompatible with the division of labour into functionally specialised lines. Not only do the systems encourage such inappropriate consumption patterns but the very practice of reciprocation is unsuited to the individualistic and entrepreneurial qualities necessary for economic growth.

Such assumptions are, in part, founded upon the concept of equilibrium within systems of reciprocal exchange and they disregard some of the very processes by which power is achieved and asserted - through the manipulation of the flow of goods and services.

The following analysis of exchange patterns is concerned with investigating the direction and volume of flow of property in situations where monetary and reciprocal exchanges of goods and services operate side by side. By this means any differences in exchange behaviour, areas of stress or overlap between the two systems, and specific orientations in the movement of property can be identified. Further, where, in the broader context, some degree of individual specialisation is discernible - between subsistence farmer, subsistence farmer plus cash cropper, ex-serviceman settler and wage worker - functions underlying the transactions of specific goods can be determined, as can the extent of interdependence between transacting partners. Thus, in the final analysis, something can be said about the relationship of a non-monetary to a

monetary exchange system in a single society and of the society's social system to the processes of commercialisation. 121

Method adopted

The approach adopted to the analysis of exchange is similar to that of activity patterns, with parallel observations being made on the same sample.[1] To simplify quantification and accurately determine the place of individual households within the exchange system, the basic unit of measurement adopted is the transaction rather than the good or service, the act of giving or receiving being identified as such. Thus, in the case of goods or services exchanged between two members of the sample, each is recorded twice - against the donor and the recipient. While most goods entering the exchange system are only transacted a single time prior to consumption certain items, particularly pigmeat, may change hands a number of times, with some subdivision on each occasion. Therefore the sum of transactions does not necessarily reflect the sum of goods and services exchanged by the sample as a whole but rather that of the sum of its individual members grouped into households.[2]

Five broad categories of goods and services are identified - subsistence produce, cash crops, labour services, storebought goods and cash - but the distinctive nature of each precludes the application of a single system of measurement. Instead three are used - weight (in lbs) for subsistence produce, time (in hours) for labour services, and monetary value (in $) for the others - and each category is discussed separately.

Further, on account of the part-subsistence part-commercial nature of the village economy, transactions fall into two broad systems - subsistence and monetary - within which both the ideal and actual form of exchange is often radically different. Thus, initially, the data are presented in such a way as to demonstrate the total volume of transactions falling within each system; thereafter the two are amalgamated and the seasonal fluctuations in exchanges, together with the area over which they operate and their relationship to kin and to the several socio-economic groups identified, are considered. Finally the exchange patterns of individual households are discussed, to include data on income and expenditure of cash during the eleven months within which the detailed surveys fell (February 1964 to January 1965). 128

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[1] In fact this survey only commenced in week 2 - at the beginning of the week in Inonda and mid-way through in Sivepa.

[2] Although all transactions are related to individuals, intra-household ones are disregarded. In effect, therefore, the 'minimum transacting unit' is the household.

437 uncommon to assist relatives from other villages in such major operations as clearing new garden sites but, with one exception, cash cropping services are confined to the intra-village level.

In conclusion, exchanges are primarily intra- and inter-village, and they operate over a highly restricted geographical range. Further, in the case of cash cropping and during the seasonal food shortages there is a tendency for this range to contract to the intra-village level.

The network of exchanges among kin

433 Apart from the absence of any generalised medium of exchange, it is the strength and ramifications of kinship networks, affirmed by reciprocal exchanges, which are believed to have the most deleterious effects on economic growth by inhibiting the accumulation of individual wealth. Thus, where an individual has access to a scarce resource, for example, money, obligations currently effective with kin permit the latter to register some claim to it, and result in its division and rapid distribution.

121 Murdoch (1949:92) defines a kinship system as 'a structured system of relationships, in which individuals are bound one to another by complex interlocking and ramifying ties'. The most important dimension of this system is 'distance' where, in Murdoch's case, an individual's relatives fall into four major categories - primary, secondary, tertiary and distant relatives. Primary relatives comprise members of the same nuclear family as a person - father, mother, sister, brother, spouse, son, daughter; each of these have primary relatives of their own, most of which are not primary relatives of Ego - for example, father's father, mother's brother, wife's sister - and are spoken of as secondary relatives. Each secondary relative, in turn, has primary relatives who are neither primary nor secondary relatives of Ego, and are therefore termed tertiary relatives - for example, father's brother's wife, father's sister's son, father's father's mother. Distant relatives are more remote than these.

The form and intensity of exchanges are held to be explicable largely in terms of such models of kinship. Sahlins (1965:149), in identifying a spectrum within the field of reciprocity (from 'generalised' through 'balanced' to 'negative reciprocity'), proposes that

> The span of social distance between those who exchange conditions the mode of exchange. Kinship distance...is especially relevant to the form of reciprocity. Reciprocity is inclined toward the generalized pole by close kinship, toward the negative extreme in proportion to kinship distance.

> The reasoning is nearly syllogistic...close kin tend to share, to enter into generalized exchanges, and distant and non-kin to deal in equivalents or in guile.

He does, nevertheless, recognise three aspects of kinship distance, namely, genealogical, segmentary and spatial (or residential) distance. Of the third, he writes: 'It is not only the kinship organises communities, but communities kinship, so that a spatial, co-residential term affects the measure of kinship distance and this the mode of exchange.' (1965:150)

Among the Mt Lamington Orokaiva exchange networks can best be understood in terms of associated kinship-residential groupings, on account of the physical separation of clans into several branches and the frequent juxtaposition of two or more such branches in a single village. Yet, even with this proviso, it is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred (if any important relations exist at all in the context of Murdoch's model) for, not only is the proportion of total production entering into the exchange system small in Sivepa, but the dimensions of the system and the number of persons with which an individual effects significant transactions are also small.

The following examination of the major exchange relationships of six selected individuals[1] (see Table 10:17) reveals that many are founded on a specific set of considerations, involving degrees of economic inter-dependence, rather than on general obligations to a wide range of kindred. The conclusions reached are, to a degree, determined by certain assumptions inherent in the mode of analysis. Firstly, the exchanges of individual members of a household are considered instead of those of the household as a whole although a man and his wife, for instance, clearly conduct exchanges on each other's behalf. Secondly, women are treated as members of their spouse's lineage group since this is the kinship context in which they are considered to be the most effective transacting agents. In spite of such limitations the fact does emerge that exchange networks are not readily explicable in terms of formal models of kinship or of exchange based on such models.

Linton. Although only adopted into Timumu clan, Linton behaves as a full member of it and retains few links with his true agnates, many of whom reside less than one hour's walk from Sivepa. The total volume of transactions effected by him exceeds that of the other selected individuals in all but two aspects: the disposal of subsistence produce and the acquisition of labour services in subsistence activities. In spite of the fact that he

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1 The same six whose activity patterns are considered above. See pp.117-27.

433 experiences with cash cropping such intervention is urgently required among the Orokaiva.

Village life cannot yet be characterised as a 'culture of poverty' in the sense that Lewis (1966) conceives the term or Watters (1967) has applied it. Unlike the Venezuelan campesino the Orokaiva seldom express the 'attitudes of hopelessness, helplessness and resignation that are so inimical to the spirit of enterprise and innovation that is so desperately needed if traditional agriculture is to be transformed, and the modern world ushered in' (Watters 1967:40:1). As this study has shown, Orokaiva villagers are still actively experimenting with cash crops and with new forms of organisation. Despite their past experiences and the scepticism which frequently plagues current attempts, many are willing to work hard and they still seek the 'road' to prosperity. It is evident that if this 'road' is to be found it requires something more radical than the encouragement of limited cash cropping by subsistence farmers. As a prerequisite for real progress there must be a thorough-going reappraisal of the whole village economy and its place in the wider, national economy.

121

Summary of conclusions

While the foregoing study was concerned specifically with investigating certain aspects of the relationship between cash and subsistence cropping, the data gathered are relevant to a much wider field. The main conclusions are therefore summarised here to suggest some of the broader theoretical implications of the data. It is the authors' intention that some of these wider themes will be dealt with in later papers.

The conclusions fall into two general groups - specific statements of fact founded directly on the data, and evaluations which are derived from this factual information. No distinction is drawn between the two in this summary and the listing follows the order in which they fall within the text.

1. A very high proportion of the potential adult male labour force is absent from Sivepe (but not Inonda), while dependents are supported by close kin in the village (pp.37, 53).

2. While there have been significant reductions in the total cultivated areas since the previous surveys, acreages under yams and Xanthosoma have increased substantially (pp.41-4).

3. There have been a number of attempts recently to expand cash cropping activities, both on individual and communal bases, but with little success (pp.44-5, 59-60). Even copra production ceased in Inonda during 1967 due to insufficient trees in excess of subsistence requirements (Oriri: personal communication).

121

4. Both villages were transferred to new sites during or shortly after the survey (Sivepe's move being completed by 1966), apparently in response to economic considerations (pp.45, 52, 154).

5. No clear distinction can be drawn between cash croppers and non-cash croppers - there are various forms and degrees of involvement in commercial agriculture with every household participating in some way (pp.44-5, 60).

6. Most of the technological modifications which have taken place involve substitution of improved versions of the same goods for their traditional counterparts, and so the easing of many subsistence tasks, rather than changes with any commensurate radical innovations (p.64).

7. The processes of production, distribution and consumption cannot be considered apart from their social contexts in societies where labour is not specialised and subsistence production predominates (p.69).

8. Fisk's thesis of a concealed potential surplus of labour incorporates dubious assertions concerning 'productive ceilings' in view of the mechanisms by which power and prestige are achieved in acephalous Melanesian societies (pp.69-71).

9. Much potentially available labour time is lost through sickness and temporary absences from the village (pp.74, 128-30).

10. At least as much time, on average, is devoted to paid work as to cash cropping in Sivepe, although fewer individuals are involved (pp.92-3). In Inonda paid work is considerably more important (pp.141-4).

11. The productive component of time spent on subsistence and on external sector activities differs greatly, and the absolute insignificance of cash-producing activities in the work pattern must be considered in terms of the relatively unproductive nature of Orokaiva involvement in the external economy (p.94).

12. A direct relationship is discernible in Sivepe between the amount of time spent active and the age of the household head; the younger householders are both more active and, almost invariably, the ones with cash crop holdings (pp.94-6).

13. While extended periods of paid work appear to conflict with the regular subsistence gardening activities, cash cropping does not (pp.98, 144-5).

14. The division of labour by sex reflects the formal authority structure in the household where men delegate the responsibility

for meeting routine needs to the women while they concern themselves with the prediction of future needs or with catastrophic aspects of the food cycle (pp.90-101). 12)

15. With increasing age a progressively higher percentage of total activity time is devoted to productive and to subsistence tasks, and only the 25 to 44 years age group participates in all forms of activity (pp.102-4, 149).

16. Where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. Lengthy tasks, such as clearing, are virtually restricted to days free of external commitment (p.106). Those activities which assume a weekly pattern are mostly in response to the dictates of the external sector - so, in Inonda, most social activities are confined to weekends (p.151).

17. While the total time devoted to cash-producing activities is slight, they are apparently disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks, because of their typically long duration (pp.108,151-2).

18. Travelling is a major component of activity time and is recognised to be an important determinant of the level of productivity. It has probably assumed a greater significance since contact with the expansion of the village oecumene because there have been no parallel developments in modes of travel (pp.108-12, 153-5).

19. The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. There is, therefore, immediate scope for improving efficiency at this level (pp.114, 157).

20. Work groups are typically small and seldom comprise more than individual members of a single household performing distinct but mutually compatible tasks at the same location. In most cases large work groups are associated with non-traditional activities and in the few instances where co-operative effort is customary an immediate return against assistance rendered is generally obtained (pp.114, 117, 157, 159).

21. Subsistence sector tasks account for the differences in the general levels of activity in the two villages - the differences being largely explicable in terms of their respective resource bases (pp.169-70).

22. The labour requirements of village transfers do not appear to exceed significantly those associated with the normal rhythm of repair and rebuilding in a village (p.170).

121

23. The Orokaiva economy remains essentially tradition-oriented, in spite of a real need for money and the under-utilisation of available labour; recent changes in the subsistence cropping pattern reflect the need to find an improved food supply during the dry season rather than to economise on effort (pp.172-3).

24. There is no evidence for the expansion of cash cropping and paid work having resulted in any commensurate contraction in the time devoted to non-productive activities (pp.174-5).

25. That labour time which, it is estimated, has been made available through the change from a stone to a steel technology is already fully accounted for by existing external sector activities (p.175).

26. The basic issue in the further expansion of cash-producing activities appears to be one of the organisation of labour and time rather than of its absolute availability, and those cash-producing activities which do not demand a significantly different or longer work routine are likely to be preferred (p.175).

27. A broad equivalence is apparent in the exchanges of subsistence produce (pp.184-5, 233, 235).

28. Many of the purchases of storebought goods are of considerable economic significance, as in the case of food supplementing the diet during the dry season and household and personal goods which have eliminated their traditional counterparts because of greater efficiency or durability (p.191).

29. The gift exchange system serves as an important mechanism for the acquisition of cash, but only a minor part of that entering in this way is distributed in a like manner, income being used rather to purchase goods unavailable in the subsistence sector of the economy (pp.191, 219).

30. Weekly fluctuations in cash income are great and, since turnover is rapid, little capital formation takes place. Further, while there are substantial differences between households in the total value of expenditure, composition varies little (pp.199-200, 207, 248).

31. The volume and value of household exchanges vary considerably in Sivepe and the network suggests the exchange system to be primarily a negotiated and exploitative one, with the ideal of communal interests and group security relegated to a subsidiary role (pp.200, 203).

32. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping. In fact, remittances rank with

121 proceeds from the sale of cash crops as the single most important source of income in Sivepe, and contracts between the Administration and the entrepreneur are the principal source in Inonda (pp.203, 258).

33. As with work, the intensity of exchange or activity in the monetary sector is apparently recognised, at least at the present level of commercialisation, as one criterion engendering respect among villagers (pp.204, 252-4).

34. The circulation of 'wealth' in Sivepe is differentially controlled by each of the three middle age groups, with the 25 to 34 years founded almost exclusively on non-traditional goods, the 45 to 54 years on traditional goods, and the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (pp.211-12).

35. It is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred for, not only is the proportion of total production entering into the exchange system small in Sivepe, but the geographical dimensions of the system are restricted, as are the number of persons with which an individual effects significant exchanges (pp.219-20).

36. A major source of labour assistance in Inonda is non-residents - mainly youths invited to assist in specific tasks. In such an area, where the population density is low, young unattached kinsmen appear to function to some extent as a flexible reserve of labour which can be drawn upon at short notice by people over a considerable distance (pp.263-4).

37. The juxtaposition of monetary and non-monetary exchanges largely conforms to traditional concepts of morality where the principles of reciprocity operates within the 'sympathy group' and monetary transactions are effected, almost exclusively, with indigenes lying outside this group and with institutions (p.278).

38. Casual exchanges comprise only a small proportion of the total volume. Furthermore, in most instances, only a small proportion of total production enters into the distributive system. There is little evidence to suggest, therefore, that the system functions as a major limitation on productivity or individual aggrandisement (p.279).

39. The higher level of transactions at Inonda appears to be associated with the greater socio-economic diversity of the neighbourhood and the almost total lack of absentees remitting cash and storebought goods to the village (pp.279-82).

40. In the absence of a developed market economy and the scarcity of its basic prerequisite, cash, reciprocal exchanges based on

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

121

kinship serve as an effective means of exploiting the resources available to the several socio-economic groups and of providing an important measure of social security (p.283).

41. The very limited development of cash cropping and the diversity of cash-producing activities should be viewed within the context of:

(a) the high cost of transport of goods with a low value per unit weight (p.288),

(b) a low level of productivity which is in itself a reflection of the failure to delegate responsibility effectively in communal ventures, and of inadequate agricultural extension patrols (pp.289-90),

(c) the importance placed on regularity of income and size of individual cash payments, rather than simply of returns to labour, in determining cash-producing preferences (pp.294-6).

42. Major extensions in cash cropping are inhibited by the juxtaposition of two radically different cropping systems in single units of production (pp.298-9).

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

/14 mental health of the indigenes of Papua-New Guinea by Sinclair, McElwain and Campbell (1958). In 1960 van den Hout, McElwain and Ord visited the Schouten Islands in West New Guinea and outlying areas to assess the suitability of the test for these areas. The test was found to be useful, and was employed by the Dutch administration for educational selection.

Ord's work was the first attempt at the construction of a suitable test using modern psychometric techniques. It was, in fact, the first successful construction of a major test of general cognitive ability ever constructed outside Europe or the United States. Most other tests have been specific and have not been put into more general use.

Rationale

●/21 Intelligence or cognitive capacity is mediated through behaviour and is manifest in performance. All behaviour is a function of innate ability compounded with environment. It is impossible to measure one in isolation from the other. However, it is considered sufficient to infer differences in innate ability from differential test performance where environmental influences are held reasonably constant for the members of any group.

The ability of the testee to adopt an intellectual approach congruent with that of the tester will often determine his performance on a test. This was shown by Runkel and Damrin (1961) in the context of university teaching and examining. The method used to find the solution may vary for the one person from time to time and vary widely from person to person. This method is different from the solution itself. It is the tactices or the method of attack on the problem. The testee will usually have available a repertoire of such tactics for problems which he perceives to be of a certain type; one or more of which he will prefer, probably since they have been successful in the past. The testee whose preferred tactic is, in fact, an efficient one for the particular kind of problem will score well because he can solve more difficult problems faster than a testee whose preferred tactic is not so efficient.

It is probably generally true that when the person who constructs the problem and the testee who attempts to answer it have the same cultural and experiential background, then the testee is more likely to have the appropriate tactics available to solve the problem than when the tester and testee have different backgrounds. This intellectual empathy or like-mindedness between the tester and the testee; or more strictly, between the demands of the problem and the preferred mental tactics of the testee, has been referred to as 'serendipity' by Campbell (1963).

121 Thus, one important factor to be considered when designing tests for cross-cultural use is degree of serendipity or congruence. Another concern is the physical aspects of testing, e.g., the way in which testees perceive certain materials and patterns and manipulate spatial forms, and the way in which test requirements are communicated.

Some test designers who have specified their tests as culture free, have meant either implicitly or explicitly that the test is constructed so as to reduce the undue influence of cultural elements when testing cross-culturally. Others, such as Goodenough (1926), have used the term more specifically to mean mere reduction of verbal content (Goodenough and Harris 1950). Such specifications are obviously inadequate.

In addition, however, another source of error arises when testers use such scales inappropriately, with little apparent awareness of limitations suggested by the authors. An example of this is the use by Jordheim and Olsen (1963) of a test designed by Cattell (1944). Cattell designed the test for use in the United States on testees with a European background and validated his study on American, Australian, French and British samples. Jordheim and Olsen used this test with modification (which is itself an uncertain practice) on the islanders of the Trust Territory of Truk and Yap in the Pacific. They reported findings which have been criticized by Kearney (1964).

A more realistic approach is to construct a test which might be described as culture-reduced. Cattell later changed the title of his test to 'culture-fair'. Even with culture-reduced or culture-fair tests it is mandatory that they be standardized on a sample of testees representative of the population with which they are later meant to be used.

The present battery was designed to specifications prescribed by McElwain and Griffiths (1958) and standardized first by Ord (1959). The specifications were that each item type

(i) was known to be a good test of general intellectual capacity for a European population;

(ii) was to be free as far as possible from language skills, reading, writing, listening or speaking;

(iii) should not require bulky equipment;

(iv) should not involve fine manipulative skills.

Over 100 item types from well known and validated scales for European samples were tried. From these, four were found to discriminate well between known bright and known dull testees. Later, as the result of further investigation, another two tests were added.

121 It became evident that the best tests were those that depended least on the translations of test instruction but utilized miming procedures for maximum communication. The performance of the test items and the test itself are part of the progressive communication and elaboration of the task.

The present study

125 [121] Seven different groups were tested. These had been selected previously by the New Guinea Research Unit for special study because of their different approaches to land tenure.

A description of the samples in order of testing is given in Table 1.

It was decided to take a sample of 20 adult males from each group. Many of these had already been included in studies planned by or undertaken in conjunction with the New Guinea Research Unit.

In the village of Inonda there were insufficient adult male testees, so numbers were supplemented by ten from the nearest related group, Hohota, about five miles away. In addition, at the time of testing three men were added to the Sivepe sample from the related village of Binduta to bring the sample size to 20. At Beporo a sample had already been selected from the Kurou clan and this was supplemented by testees from six other clans to complete the sample. The samples at Ongoho and Borugasusu were just sufficient in size to be complete. The ex-servicemen sample had been previously selected for fuller study. They came from Isevene, Sangara and Girua.

[464] Plantation labourers were selected randomly from the lines of Orokaiva tappers and clearers. Plantations often draw upon one type of labourer who may or may not come from one tribe or region. Three plantations were used to reduce any bias. They were 'Awala' plantation, 'Kagana' plantation and 'Mayoh' plantation. These labourers were not the same individuals as those studied by Howlett.

The tests used

121 125 In this study an item is defined as a single unit in a series of similar units. It is complete in itself but when joined together with the other items forms a test. A test then, is a number of similar items following the same rationale. A battery is a number of tests that can be combined in any way, depending on the requirements.

Table 8

Unrotated factor loadings

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Test	Factor I	Factor II	Factor III	Communalities
Cube Imitation	80	-36	-28	85
Bead Threading	-	-22	92	90
Passalong	59	-54	-	64
Form Assembly	83	32	-	81
Pattern Matching	68	28	36	67
Kim Game	72	-37	-	66
Gestalt Continuation	69	63	-	88
Variance	44.8%	17.0%	15.4%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

These factors were rotated using the varimax unadjusted method and are shown in Table 9.

Table 9

Factor loading rotated to a varimax unadjusted solution

Tests	Factor I	Factor II	Factor III	Communalities
Cube Imitation	89	21	-	85
Bead Threading	-	-	95	90
Passalong	78	-	-	64
Form Assembly	46	77	-	81
Pattern Matching	27	69	34	67
Kim Game	78	-	-	66
Gestalt Continuation	-	92	-	86
Variance	33.0%	28.4%	15.7%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

Discussion

In this paper the term cognitive ability is used in preference to the more commonly used term intelligence. The latter term has come to have a connotation by common usage which leads to ambiguity. Cognitive ability is used to mean 'thinking' or 'reasoning' abilities in their broader sense.

121
153

121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[797] to discuss the possibilities that cause this effect. It is interest-
177 ing to note that the village of Beporo is situated beside the Gona
871 Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

153 there is the ability to visualise the 'whole' and how the parts fit together or to complete the Gestalt.

The third factor which accounts for 15.7 per cent of the variance presents a more difficult task of interpretation. Because it has a very high loading on the Bead Threading test and only a smaller loading on the Pattern Matching and an absence of any loadings on all other tests, it is indicated that the factor is almost specific to the Bead Threading test. It could perhaps be associated with some type of manipulative ability, i.e., threading the beads or manipulating the tiles. Definite conclusions cannot be drawn at this stage.

153 From the factor analysis, the structures of the elements of
● 121 cognitive ability measured by the tests emerge more clearly. This is due to the use of more accurate statistical methods than an a priori assumption that each test measures some particular aspect of cognitive functioning. The overall ability level of the seven samples and the three categories are therefore seen in more detail.

The interlocking matrix of cognitive ability is complex but some elements of this are measurable. They do reflect the variation in ability from person to person. People also vary in other facets of behaviour and one examined here in a crude and simple form is productivity in the cash crop economy. The relationship of these abilities has been demonstrated. It would have been better if a more intricate and exacting measure of this productivity had been obtained. Even though productivity is sometimes related to specific influences such as economic, agricultural or even social fluctuations, these may be beyond the control of any particular person. There is also a level of cognitive ability specific to a person that tends to influence the outcome of his personal endeavour.

It would be foolish to assume that all high producers are of necessity of a high level of cognitive ability or that all low producers are of low cognitive ability. However, the trend is clear and significant.

It is often the case that external influences are circumscribed in their effect on agricultural outcome and that personal attributes such as individual cognitive ability are thought to be of only minor importance.

The ability to differentiate between successful and non-successful categories implies the ability to predict such categories and therefore select with higher probability than chance those who are likely to succeed in any venture.

Economic, agricultural and other external influences are important as are individual, social and internal emotional

153 influences. Motivation is of considerable importance but tends to be confused. It is easier for a person to say that he won't do
121 something than to say that he can't. This is certainly the case in the European culture where being poorly motivated is more acceptable than being of poor cognitive ability. The former state can be altered from time to time but the latter state is relatively unchangeable.

It is suggested that in those cases where there is a need to choose between a number of applicants, those with the greatest probability of success should be selected. Close attention should be paid to the individual's cognitive ability and this, together with knowledge of other background and environmental influences, can increase the possibility of success in any selective procedure.

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Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

I

[589] [495] The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. [465] For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage [494] payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

● 121 There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

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[128] [1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

investment in the villages, for there is scope for an astute and influential individual to use them to accumulate cash which may subsequently be invested. On the other hand, an institution such as bride-wealth may be detrimental in that an individual may consider it pointless to earn more cash if a large proportion is to be used to assist kin in exchanges which do not benefit him directly. Also an individual may have difficulty in accumulating cash for investment if social pressures force him to contribute a high proportion of his cash income to non-commercial exchanges.

In addition we have no clear understanding of the degree to which and circumstances under which an individual's participation in ceremonial exchanges involving cash affords him access to the land, labour and capital resources of the group to which he belongs. Some indigenous entrepreneurs minimise their participation in these exchanges while others apparently attempt to use them to advantage.

The following description of an Orokaiva marriage and bride-wealth exchange does not contain sufficient information to allow generalizations about economic implications but may be a useful contribution to a comprehensive study of customary exchanges. The activities associated with the marriage involved people from several villages and hamlets as well as a nearby land settlement scheme. The events spread over approximately two and a half months culminating in the payment and distribution of the bride-wealth at the end of August 1962.

II

Traditionally, an Orokaiva man could acquire a wife by payment of bride-wealth; by exchange of a girl from his lineage, sub-clan or clan for another from an outside group; by elopement; or by capture (Williams 1930:130). When Europeans gained control of the Orokaiva area early in the century, marriage by capture, which had been common, was no longer possible. Since then, other aspects of marriage among the Orokaiva have changed. People may now move freely within the Orokaiva area and elsewhere, and consequently the range of villages from which an individual may choose a spouse is wider than in the pre-contact period. Furthermore, many marriages now take place at least partly in accordance with church practices. Missions[1] have failed to suppress exchanges of bride-wealth and it

[1] The Anglican Mission has been operating in the area for over 50 years and has been the most influential evangelical institution there.

FOREWORD

101 In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are [619] known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

241 During the last ten years there has been considerable development of commercial agriculture within the area. Many 241 people have planted cash crops on land held under customary 413 tenure; some villages have planted communal blocks on land set 65 aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of the land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Nota, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land tenure and work organization.

It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepe, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

(1) Population density in the Saiho census division (which includes Sivepe) is 72.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
36	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager,(1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

(1) He has planted 1,161 cocoa trees.

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

121 ambitious men could be resettled on individual holdings outside Inonda. There is no indication that freehold tenure within Inonda would facilitate improved productivity any more than the Higaturu Council registration scheme.

[241] [493] It is apparent that the highest productivity per man and per acre at present is achieved on the large-scale European plantations and the individual family holdings for Papuans, both of which are financed largely by government loans. The degree to which developments of this type can be extended is limited in practice by the volume of funds available from or through government agencies. The comparative productivity of these two forms of organization is now being analysed and it is hoped that the results will be available in the next few months.(1)

It is likely that at this stage only a few Inonda men would be suitable for resettlement on individual blocks, with development loans, but a number would be both suitable and willing to work as plantation labour. The feasibility of encouraging the ownership of plantations by Papuans seems to merit exploration, for experience elsewhere in the Pacific in recent years suggests that in conjunction with expansion of cash cropping by individuals or families, plantation agriculture operated by indigenous entrepreneurs may provide an important avenue to increased output from commercial agriculture.

(1) A paper on the Popondetta plantation economy is in the course of preparation by Dr. Diana Howlett and another on the government-sponsored family holdings by Mr. R.J. Cheetham. Both will appear in subsequent issues of this Bulletin.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 402 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 402 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected 126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four
472 whose stores had an average monthly turnover of less than $50.00. Group III comprises those with a turnover in excess of $50 a month.

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[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
423 the Northern District of Papua in which land previously held under customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from
124 official files. Where recorded information was not available, estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews
122 carried out between 9 January and 11 February 1966. During these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Humu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below.

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst.]

657 423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

●121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

1 See p. 6.A
A [See Category 241--Analyst]

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy [464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

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[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

Appendix A

Process and costs of tenure conversion in the Northern District

121 This Appendix attempts to estimate roughly the economic costs of tenure conversion. Land tenure conversion can only be justified if the economic and social benefits to be derived from it exceed the economic and social costs of its execution. Information is not available to allow comparison of costs and benefits from alternative methods of promoting agricultural development.

Procedure

659 423 The procedures to be followed in converting land held under customary tenure to individual registered title are set out in the Land (Tenure Conversion) Ordinance 1963 and the Land Titles Commission Ordinance 1962. The country is divided into a number of 'adjudication areas' and within each a 'demarcation committee' (with a majority of indigenous members) is established to prepare demarcation plans marking the boundaries of all native held land within the area. If a group is acknowledged as the undisputed holder of an area of land, members of the group may apply to hold portions of the land under individual registered title.

The Land Titles Commissioner prepares a conversion plan and publishes notice that the application will be dealt with after three months, during which time objections may be lodged. If he is satisfied that all persons with rights in the land agree to the application and that adequate compensation is provided for interests abolished or reduced by conversion, the Commissioner issues a conversion order. Ninety days is allowed for appeal and thereafter the conversion order is sent to the Registrar who registers the applicant as the owner of an estate in fee simple. Upon registration of individual title the land ceases to be subject to native custom and all previously existing rights are abolished.

The procedure followed in the Northern District differed from that laid down in the Ordinance in that conversion began there over a year before adjudication areas were mapped out (in January 1966) and no compensation was paid to persons losing rights to land - nor has any been requested by villagers.

Appendix C

Factors associated with high cash cropping activity

121 Although this study is mainly concerned with land tenure conversion, information was also collected on factors associated with high cash cropping activity which may be of interest when compared with related findings published in earlier New Guinea Research Bulletins.

249 472 Blockholders resident at Ombi-Tara had planted an average of 348 high-yielding rubber seedlings by 1 November 1965. The nine men who had planted more than the average were compared with the remainder of the Ombi-Tara population to determine whether they differed significantly in education, non-traditional experience, age, clan, religion, number of children, sources of income, responsible positions held in the village, languages spoken, cash crops planted before conversion and attitudes as revealed in answers to the questionnaire. In most of these characteristics there was a striking similarity between the nine men and the total population. However, several differences did emerge.

While there was almost no difference between the average number of years spent in paid employment by the sample and total populations, there was a significant difference related to responsibility, skills and locality of employment. The nine above average planters included six of the eight Ombi-Tara men who had been to Port Moresby and two of the three who had been to Rabaul. Jobs held in these towns tended to be of a more skilled and responsible nature than those held by other villagers. In Port Moresby two men were employed as policemen for nine and two years, one worked for two years first as a plumber's assistant and then as a labourer, and the other three each worked for twelve months as a workshop assistant (and later as a survey assistant in Popondetta for four months), an office boy, and a labourer respectively. The two men who went to Rabaul worked as painters with an oil company for eighteen months. The man who spent nine years in Port Moresby as a policeman was also employed as a domestic servant at Kokoda for twelve months, the only Ombi-Tara man to have a job of this nature.

One of the nine men is Charles[1] and another is the clan leader of the Mumu clan. A third is the joint custodian with Charles of

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[1] See p. 11.A

A [See Category 464--Analyst]

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

000 rates of pay than do the plantations. There is, however, disagreement between the indigenes and the mining company regarding the future distribution of profits from the copper.

361 171 Although there is a marked similarity in the structure of buildings in the two areas, settlement groupings are dissimilar, partly because of topographical differences but particularly as a result of the recent changes which have occurred in the Yega pattern of settlement.

●121 The third area of study, that of the indigenous community in Port Moresby, is distinct. It has been included because more and more village people, particularly young educated men, are choosing to live and work in towns and it is rightly recognized that, although the towns contain only a small fraction of the Territory's population, the people living in them are the most politically sophisticated, vocal in their dissatisfaction of their present status and, of all the country's inhabitants, most susceptible to propaganda. The distinction is made in this section between those indigenes who are the traditional inhabitants of the land where Port Moresby now stands, and those whose lands are elsewhere but who now live and work in the town. It is this latter group that is classified as indigenous migrants.

[P4-8)

19: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

RECIPROCITY AND STRUCTURE: A SEMIOTIC ANALYSIS OF SOME OROKAIVA EXCHANGE DATA

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After outlining a semiotic method of studying reciprocity and gift exchange, the vernacular terminology of the Orokaiva system is outlined, with reference to an extremely simple myth. On the basis of a more complex reciprocity myth, a connexion is laid between the rules derived above and the Orokaiva perception of world order. While the Orokaiva rules follow the principle of balanced reciprocity, these rules are in practice so interpreted that actual behavioural norms are close to Sahlins's model of generalised reciprocity.

I

121 Is 'reciprocity' a useful concept in anthropology? A recent article by MacCormack (1975) has answered this question largely in the negative. The purpose of the present article is not to argue with MacCormack, who raised some useful questions, but to clarify the issue with the help of relevant data.

There are two types of reciprocity theory. The first, which we may call naturalist, views reciprocity as a means of maximising economic and social advantage. By this view, the form of expression usually requires minimal explanation. According to the second type of theory, the principle of reciprocity is presented as 'one of a number of structuring principles which underlie the organisation and functioning of the human brain' (Pouwer 1974). More specifically it is, as Lévi-Strauss said, 'the most immediate form of integrating the opposition of self and other' (1967: 98).

Most social anthropologists (including Malinowski) write as though there were truth in both. Sahlins's theory—one of the most useful, in my opinion—blends the functionalist and the structuralist-semiotic approaches. His almost classical subdivision of reciprocity into generalised, balanced and negative is presented in functionalist style: 'A purely formal typology of reciprocities is possible, one based exclusively on immediacy of returns, equivalence of returns and like material and mechanical dimensions of exchange' (1974: 191). Yet, in practice, Sahlins showed deep awareness of subtleties of cultural meaning which make the classifying of reciprocity systems a task of great delicacy, as distinction has to be made between kinds of perceived equivalence. He wrote freely about the 'ideal of reciprocity' (e.g. 1974: 135), about 'rules' to which it gives rise and about behaviour that can be explained by it. In laying such connexions, he was applying structuralist-semiotic

Man (N.S.) 14, 271–285.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

methodology, thus offering himself as a target for MacCormack's above-mentioned criticism.

Functionalist methodology, as we know, studies behaviour and rules stated by informants. From this material it derives empirical generalisations concerning ideal norms, behavioural norms and deviance. When MacCormack criticised exchange theory in general, and Lévi-Strauss, Sahlins and myself (Schwimmer 1973) in particular, for not distinguishing clearly between structuring principles, rules and behaviour, he was applying just that methodology. He did not allow for differences in methodology that inevitably arise out of differences in theoretical orientation. In the present article I shall spell out semiotic methodology as it applies to the study of reciprocity, with the intention of demonstrating that it has its own kind of rigour and interest.[1]

Let us first consider the general relation between the 'principle of reciprocity' and social forms or 'institutions'. The principle of reciprocity is one of the structures around which men organise their thoughts. It is one of a plurality of such principles whose relative importance varies from one culture to another. Each culture might therefore be seen as a 'configuration' of such principles (Pouwer 1966), cultural differences being expressed by the relative weight given to each one. Social forms are therefore represented, with a frequency varying from one culture to another, by invoking a principle that can be glossed as reciprocity. The semiotic study of reciprocity takes as its domain all action and discourse in respect of which that principle is invoked, in the context of specific, heuristically chosen social forms or 'institutions'.

Let us now consider what is involved in the semiotic study of 'institutions'. I shall follow the method proposed by Bouissac (1977), based on Searle's (1969) linguistic theory. Searle's term 'institution' has been retained but does not have quite the same meaning as in functionalist anthropology. In an 'institution', we should distinguish *regulative rules* from *constitutive rules*. Social anthropology has traditionally been concerned with the former, i.e. rules about whether actions are obligatory, permitted, forbidden and so on. Searle (1969: 33, quoted by Bouissac) defines constitutive rules as the condition of possibility of some category of phenomena which we call 'institutional facts' as opposed to 'brute facts'.

We may say about ritualised prestations what Bouissac proceeds to say about circus or theatre performances: they are 'conspicuously institutional facts' and:

> their very existence is conditioned by institutions, i.e. by 'systems of constitutive rules' of the type: 'X counts as Y in context C'. Therefore, it seems that spectacles [*or ritualised prestations*—E.S.] can legitimately be considered as grammars . . .
>
> These grammars not only enable us to form and understand messages of a special kind but also to construct specific contexts for these messages. They include at least some topological rules, proxemic rules, chronemic rules, social behaviour patterning rules, coding rules, syntactical rules, situation patterning rules and performing rules (1977: 144).

In the semiotic study of exchange, it is constitutive rules of the type described here that we need to establish. An institution, such as a feast or theatre performance, may be analysed syntagmatically as a sequence of events.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

We have to establish values for X, Y, C for each episode, i.e. for each prestation. Under 'social behaviour patterning rules', we would need to treat formal and contextual social relations between classes of actors as contexts because a quite different 'meaning' needs to be attached to a prestation according to whether it is made between, for instance, cross-cousins, affines, feasting partners or hereditary friends. (For the Orokaiva, these differences are glossed in Schwimmer 1974.)

We could not retain the otherwise very useful class of 'convertibility rules', first established by Firth (1939), because prestations of taro, yam, areca nuts, pig, different types of ornaments etc. may follow varying 'rules of syntax'. Even if such objects belong to the same 'sphere of exchange', their convertibility as signifiers can never be assumed on the basis of a functional classification but must each time be established by specific semiotic investigation.

To give another example, in an investigation of daily intra-village taro prestations among Orokaiva I found that the meaning of the gifts was systematically affected by their frequency (chronemic rule) and by the distance between donor's and recipient's residences (topological rule). Subtle nuances in social distance could thus be signified.

These examples give some idea of the kind of rigour the semiotic analysis of exchange demands. While most kinds of constitutive rules to be discovered in exchange systems fall into the standard types enumerated by Bouissac, there are two kinds that may be specific to ritualised prestations. These need to be briefly presented. The first kind may be called 'equivalence rules', and specifies the conditions under which two patently different objects will be deemed to be 'equivalent' in the sense that one is fair (balanced) exchange for the other. The term is due to Daniel de Coppet (1968) who gives examples, taken from Malaita ethnography, that show very clearly that the equivalence here is not inherent in the objects exchanged but purely in the representations Malaitans have about what they stand for.

If we use the same symbols as before for constitutive rules, and write a transaction as two prestations P_1 and P_2, and if

$P_1 = X_1$ stands for Y_1 in context C
$P_2 = X_2$ stands for Y_2 in context C

then P_1 and P_2 are equivalent if the recipient in P_2 considers them to be so. Where social relations between exchange partners are, ritually speaking, symmetrical, equivalence will normally be restored by a return gift of objects of the same kind, the same quantity, the same quality. The need for writing equivalence rules arises where role attributes or formal capacities are complementary, and where X_1, X_2 cannot be objects of the same kind so that their equivalence must be established by a cultural rule. The most famous example is the *mwali/soulava* exchange in the *kula*. Malinowski wrote (1922: 356) that the two ornaments are 'equivalent' if of the same quality. Also, 'the armshells are conceived as a female principle and the necklaces as the male.' Moreover, speaking metaphorically of Dobuans (recipients of 'female' *mwali* armshells), Trobrianders said 'they are women'. We may therefore in this case

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land giver/land taker; human partner/spirit partner. In all these cases the equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are 'translation rules', i.e. rules about the translation of sentiments into prestations and about inferring sentiments from prestations received. These rules are elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest equivalent of *why*? is *do eto*?, meaning: what having been done, what having been?) I found that (except for identical return gifts), such questions were usually answered in terms of sentiments felt or professed by the donor towards the recipient. Bridewealth was always explained as a way of appeasing the wife-givers' anger at the taking away of their daughter. This anger is not just in the wife-taker's mind but is expressed by the wife-givers by certain stock actions and phrases (as in any joking relation) behind which there are individual variations in genuine attachment to the daughter, genuine aversion to the affines and shrewd calculation. To give another example, many feasts are made in order to restore amity between groups, in which case the small preliminary gift of betel nut and food accompanying the invitation (*sope ikari*, Schwimmer 1973: 151) would stand for an offer of amity (translation rule) and acceptance of the invitation would signify the prospective guests' willingness to forget past grudges.

Semantically, gifts encode sentiments in many ways: by what is given, how much, of what quality, in what manner, where, when, in the context of what relationship and so on.[2] The recipient decodes: he reads the donor's sentiments in the prestation—the only language that, in the cultures discussed here, does not lie. Words are not to be trusted: but a gift is sacred like a statement under oath. Sentiments do not, of course, objectively explain gifts but the translation rules specify what message a particular gift conveys about the donor's sentiments. While social anthropology may not be interested in sentiments as such, it should be interested in the codes in which they are ritually expressed and in which the receiver is urged to change his own sentiments. To the extent that the principle of reciprocity has weight in a society, conflict will tend to be resolved by prestations that will re-establish sentiments of amity rather than by the interpretation of (often ambiguous) rules of law. Such prestations recompense the distress caused rather than the torts committed.

The rest of this article will present an example of semiotic analysis of an exchange system. This analysis, based on Orokaiva data, starts (part II) by investigating terminology used in discourse about gifts, debts, exchange and reciprocity. It explores the relation between the constitutive rules and the ideology of reciprocity.[3] The second step in analysis (part III) will relate this ideology to the overall Orokaiva world-view, thus demonstrating that the principle of reciprocity is not an observer-improvised category but an integral part of the conceptual system. Finally (part IV), we shall consider the relation between the constitutive rules and transactional practices and test Sahlins's theory of exchange against the semiotic analysis of Orokaiva data.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nûts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

301

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites who tried to make ethnographic maps of the Northern District tried to find the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put on the map, as the *pereho* category included quite different groups according to who was speaking. My concern was here to give the conceptual boundaries of the exchange universe in Orokaiva terms, but there are real geographical boundaries, different for each village, which correspond to such concepts. Williams (1930) already spoke of two systems of Orokaiva morality, one within the 'sympathy group' which is his term for the exchange universe, and another where there is, in principle, a permanent state of total war even though there will always be a few islands where trading partnerships are found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and negative reciprocity, what about Sahlins's most fruitful and original category, generalised exchange? It is possible to find a category of relations among Orokaiva where it is denied that any *tihanga* is ever recognised. There are plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I doubt however whether that particular category corresponds to 'generalised reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

nut or cigarette. Secondly it includes help in most everyday tasks, including help with housebuilding and the like. Thirdly, it includes the very important category of very close kin who are deemed to pool their resources. Thus bridewealth, mortuary and other big prestations involve, as a matter of course, an entire local plant emblem group where every member is expected to put in all he has. Such groups have corporate leaders, usually the oldest agnate and such leaders have supposedly full authority over all the group's resources. Within those narrow confines, they need not cajole like the *hande embo* but theoretically they can instruct. They always told me this. It so happened that I did not know any families who habitually followed such instructions. In any case it is at least theoretically possible to separate out a category of actions based on structuring principles such as 'verticality', 'horizontality' rather than reciprocity.

Orokaiva ethnosociology does not seem to recognise a *category* of rules that lies between incorporation and balanced exchange. Yet, Sahlins has argued, on what seems irrefutable evidence, that in societies such as Orokaiva 'balanced reciprocity is not the prevalent form of exchange' and even that it is 'inherently unstable' (1974: 223). According to him what is prevalent and stable is generalised exchange. Even if we subtract a little from Sahlins's generalisation to allow for the meticulous strategies of some leaders, for the tendency to abandon 'balance' where western money becomes important, for the horror of debt bondage found in egalitarian societies like Orokaiva, for pooling in corporate groups, we are still left with many facts of generalised reciprocity.

We must, moreover, reject any attempt to explain such facts as 'organisational', as mere strategising, in contrast with other tendencies of the system that might be termed 'structural'. Such an assumption, though common enough, implies that it is sometimes possible to explain the relation between a given material condition and a specific cultural norm by the mediation of a symbolic system (as we have been doing above) but that sometimes it is not possible; that when we are dealing with deviations from the norm such deviations require only a 'common sense' explanation.

What then are we to say of the innumerable transactional sequences where, in principle, one of the transactors is in debt, but where nobody is at all interested in balancing the account? The debts are not reckoned but if the creditor feels the need for some help, he goes to his debtor and asks him for it. Can such sequences be incorporated as part of the semiotic model we have outlined? We think they can. We cannot incorporate them as part of equivalence rules, because such rules normally, at least among Orokaiva, do specify strict balance. We can, however, deal with them under the heading of translation rules.

Let us say that for years A has been helping B in a long list of predicaments. B is trouble prone while A is solid. B is generous enough but he rarely has something to give. A tolerates the situation without demur because he likes the B household; he does not at all feel anxious about repayment. Nor does B feel particularly ashamed of his position. In such circumstances, there will be a long series of gifts, for which the translation rule will be something along the

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

lines of 'A feels sorry for B'. As long as that sentiment prevails, the equivalence rule is in abeyance. But it will become operative as soon as there is a quarrel. Then, however, what B will have to pay is not the accumulated ledger. B will have to pay, according to the model I have been using, *for the anger felt by A*.

It has already been often remarked, for instance by Williams in his work on the Orokaiva (1930), on the Kutubu (1976) and on primitive justice in general (1941), that in such societies one has to pay for anger, for slights, for psychological suffering, rather than for what is objectively on a ledger. If A becomes angry, he may use the ledger as his basis of claiming from B; he may just as easily demand vast compensation for 'insulting my sister', an item that does not appear on the ledger at all.

We thus face a paradox: there is an ideology of balanced exchange, but debts claimed are not necessarily those due by the rules of equivalence. By Sahlins's theory, the importance of the ledger increases with social distance. This may well be so, because social distance makes a great difference to the translation rules. In the cases where exchange is meticulously balanced in quantity—where one measured the height of the piles of taro—the translation rules usually specify that the exchanges serve to make peace, to assuage anger, to compensate for something unpleasant. From the semiotic viewpoint I am taking, it is they and not the social distance as material and mechanical fact that determine the importance of keeping a ledger.

There is a final point: balance is not only a matter of ledgers but also of equality. In an unbalanced relationship, there is a narrow line between A feeling 'sorry for B' and A feeling superior. If A should feel superior enough to B to slight him, then the anger caused by the slight would at once wipe out the ledger, at least among Orokaiva. There are peoples who more or less permit a creditor to slight a debtor. Those who do not permit it, like Orokaiva, feel some attachment for equivalence rules.

The scheme outlined here does not make a material and functional classification like Sahlins's unnecessary. On the contrary, such a classification is a necessary control on the kind of analysis here proposed. All that is claimed is that functional classifications should be made to pass through the grid of semiotic systems.

The anthropological task, with regard to reciprocity, does not however end at that point. For anthropology, this model of a closed semiotic system is a tool for resolving other, much broader questions which are best classed as historical. The penetration of Australian capitalism has introduced a very different concept of exchange, a kind of fusion of the balanced and negative modes, destructive of Orokaiva social relations, but profitable economically. The co-existence of the two systems in the same society has given to the Orokaiva exchange system an ideological weight it did not previously have, in that it began to stand for Orokaiva cultural identity as ideology, in opposition to capitalism as ideology. This polarisation had not begun in 1970, but it was strong in 1973, at least in the village of Kiorota.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

CORRESPONDENCE

Virgin birth

Sm,

The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones. A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

614 182 not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled clan patrimony together. It is therefore [842] tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

● 121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories [813] implying causal connexions. It is notorious [824] that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *tanga* leaves fall while the main taro crop is coming up and postulate that it is the dropping *tanga* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

121 an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

114 This point has already emerged from the debate between Leach, Spiro and Kaberry 171 when Kaberry showed evidence that the 842 tribes she studied 'had no idea of the true relation between sexual intercourse and conception' while she admitted that these tribes know empirically that sex relations are a necessary preliminary to pregnancy. She made the valuable point that her informants' empirical knowledge does not logically entail a 'correct' theory of procreation. The Orokaiva case again illustrates that such empirical knowledge may serve as a building block for a wide range of soundly constructed though perhaps 'incorrect' causal theories.

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[p.133-B]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

OCEANIA

A JOURNAL DEVOTED TO THE STUDY OF THE NATIVE PEOPLES OF AUSTRALIA, NEW GUINEA, AND THE ISLANDS OF THE PACIFIC

VOLUME XXI JUNE 1951 NUMBER 4

SOCIAL CONSEQUENCES OF THE MOUNT LAMINGTON ERUPTION[1]

By CYRIL S. BELSHAW

THE eruption of Mount Lamington in the Northern Division of Papua in January, 1951, was accompanied by the immediate and total destruction of Government Station and Anglican Mission Station and the death of about 4,000 people. About 5,000 natives were evacuated from the blast perimeter to refugee camps at Oro Bay and Wairope; the Wairope camp was destroyed by floods a few days later and moved to Ilimo on the Kokoda Road. The villages of over 1,500 of the survivors were either destroyed or considered to be unsafe for habitation. In addition to these people those who had their gardens near the rivers which were fed from the Lamington slopes saw them destroyed by floods, while others on the Managalasi (southern) slopes of the volcano, not directly affected by blast, had gardens ruined by volcanic dust. This article is concerned principally with the survivors directly affected by the blast, that is those people living between Popondetta and Wairope who either had their homes and gardens destroyed or who are acting as hosts to such refugees, and who may be described as the Periho section of the Orokaiva people.

Such a sudden and devastating experience is a shock, not only to the physical and mental systems of the people who suffer it, but to the whole fabric of society. It will be many years before all the consequences can be clearly defined: in the meantime this article may serve as a tentative analysis and in some measure a historical record.

According to European eye-witnesses now in the area, the people were disturbed but not unduly frightened during the five days between the first signs of eruption and the devastating blast. The night before the blast, when the sky was darkened and tremors were felt, large numbers visited missionaries and government officers

[1] This paper is based on a two weeks visit to the area during April and May, 1951. I wish to thank His Honour the Administrator of Papua and New Guinea for making the visit possible; also the re-settlement staff, all of whom were so generous with hospitality and information.

[p. 241]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

individual villagers. The houses were built on a standard pattern, not, as might be thought, to act as warehouses or storehouses or as offices, but as eating places for the co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timbeki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

[12] with limited horizons, so that they may be translated into realistic programmes given available resources. Applied anthropologists should be able to tell when administrators are pressing too hard, or, conversely, not giving enough lead; and what stresses and strains are likely to result when this is the case. To a certain extent this can be done quite rapidly by systematizing the enquiry and concentrating on critical points such as violence or non-violence in family relations, adequacy of resources, and a genealogical approach to land tenure and inheritance. But applied anthropology must attempt to go further than pointing to critical phases of an already-evolving policy. It should be able to evolve a theory which would enable the administrator to avoid or at least adequately reduce crises before they occur; in other words to predict. The existence of numerous variables may be a valid excuse for not achieving perfect accuracy; but the time has come to write our theory in terms of social change, and in such a way that it can be tested in administrative practice, which is anthropological experiment.

Note

[773] The following legend, recorded in a Patrol Report by Mr. Atkinson in 1948, is not without interest:

Long ago a man, a woman and a dog went up into the area which was then flat land with no hills. The man wished to have intercourse with the woman and she consented, thereby doing wrong. They did not return to the village but lived in the area. The people did not see them again but periodically used to ask how they were by shouting into the bush. First they learnt the dog had died, then the man (the man's spirit told them the last fact). The hills appeared and it was always cold and wet on top. It is not good for people to go into the area.

Cyril S. Belshaw.

PREFACE

[121] The following report presents data designed to be used in "A Comparative Study of Cultural Change and Stability in Displaced Communities," a project directed by H. G. Barnett. The report follows closely a list of topics specified as variables in the study. In a preliminary statement on the project, Professor Barnett (n.d.) states the reasons why the Orokaiva, living on the [131] slopes of Mount Lamington, were included in the project. In 1951, Mount Lamington erupted, some 4,000 people were killed, and the survivors were resettled under close governmental supervision. This resettlement, as a consequence of a natural disaster, makes the Orokaiva case comparable to the other 11 cases included in Professor Barnett's study. The focus of our attention must therefore be the social and other cultural consequences of this government-sponsored resettlement.

[731] [101] I should at once note certain differences between this Orokaiva case and most of the others included in the study. Mount Lamington forms the centre of a rather populous district which is [133] segmented into very small units socially and politically, but which forms a definite unity in cultural respects. (See Map I.) [361] Differences in language, social structure, political and economic organization and material culture, in a wide area North of Mount Lamington, and included in the Popondetta, Soho Popondetta and Saiho divisions of the Northern District, are so small as to be almost insignificant. Only one of the refugee camps established immediately after the eruption was outside this culture area, and its occupants were shifted back to the Orokaiva district within a few weeks. From that point onwards, people were no longer separated from their culture but only from their land. As resettlement proceeded, even separation from traditional land holdings was soon terminated, so that the typical "resettled" village, though in a different spot from the pre-eruption village, still had access to the same land holdings.

[121] [731] In these circumstances, many of the traumatic experiences which are the subject of the other case studies in this project are not replicated in the Orokaiva case. There is no question, however, about the serious social consequences both of the eruption and of the large-scale government intervention that followed. To trace these consequences at the present time is no easy task. As all the Orokaiva returned to their own land a number of years ago, a great part of this report is an historical reconstruction and the Orokaiva are neither devoted nor accurate historians. Most happenings are covered over in their memory just as the jungle rapidly covers over past cultivations and past settlements. Some songs, some myths, and the harrowing personal experiences remain.

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory, feelingly recounted. But the fine points of organisation of the resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research
648 procedure. I should also, however, mention one or two general facts as a background to my report. The British Protectorate of New Guinea was proclaimed in 1884; the Territory of British New Guinea was placed under the authority of the Commonwealth of Australia in 1902. The effective conquest and pacification of the Northern District in which the Orokaiva live, occurred between 1894 and, say, 1906. It was to some extent speeded up by the presence of some gold miners who had to be protected and the road from Buna to Kokoda was built towards the end of that period.
[777] After the first world war, Europeans set up rubber plantations on a small scale; the Anglican Mission became established, especially along the coast. The process of pacification was a somewhat bloodthirsty event. If the Orokaiva are asked to state when they discovered what they call the "new day," i.e., modern civilisation, they refer neither to this conquest, nor to the events following the eruption, but rather to the second world war and its aftermath.

The Japanese conquered most of the Northern District in
648 1942 and were driven back, in the beginning of 1943, by the
177 combined Australian and American forces which crossed the Owen Stanley range and defeated the Japanese along the Kokoda trail. Some Orokaiva collaborated with the Japanese and killed or betrayed Europeans who were left behind in the district. When the allied forces came, the Orokaiva were able for the first time to establish really comradely relations with white men who, moreover, were generous with gifts and left behind much valuable equipment. The returning Australian government developed a new colonial policy after the war eliminating the old use of compulsion and corporal punishment while the Anglican Mission and later the government did much to improve educational facilities. Access to trade goods on a major scale began about that time. Training in the handling of cash crops, notably coffee, also dates back to the immediate post-war period. The eruption, which occurred in 1951, certainly had significant social consequences, but it is not easy to keep these consequences, i.e., the modernisation that can be directly ascribed to government measures arising out of the eruption, distinct from the policy of social development that was being followed at this time throughout the district.

731 With regard to the eruption, we must distinguish three types of effect: first, a part of the district, notably that occupied by the Sangara tribe, felt the direct blast and suffered very heavy casualties, while all survivors were evacuated; secondly, a part of the district, occupied by several tribes, was endangered

73 by the eruption though casualties were comparatively light and was also evacuated, though opened up again shortly afterwards; thirdly, a part of the district was not evacuated at all. Some villages in this last-mentioned part of the district became hosts of evacuated groups.

12 In the present study, as in all others included in the project, two villages were chosen for special study, one that belonged to the evacuated category and one other. Furthermore, both these villages were studied at two points of time, namely the time of the eruption and the time of the field study. In order to keep to this specification, it seemed less expedient to choose as the village for special study one of those which had been depopulated by the blast. The survivors of such villages were brought together into much larger villages which still exist today and which form an interesting subject for study but reconstruction of the pre-eruption situation is virtually impossible. Often the few survivors that can be found were very young when they managed to escape and it was precisely the maturer people who almost always died. The site itself has mostly disappeared.

The evacuated village chosen for special study is therefore one where few deaths occurred due to the eruption and where the period of enforced absence was short. The disadvantage of this choice was obvious: the effect of the eruption was comparatively mild; the difference between the resettled village and the pre-eruption village was comparatively small. As against this, there were two considerations: the most traumatic experience for the depopulated villages was, of course, the loss of so many friends and relatives. Here the effect of depopulation was, from every viewpoint, far more severe than the effect of relocation. It would have been almost impossible to keep the focus of the study from shifting away from the variables chosen for comparison. Furthermore, Sivepe, the village chosen for study, had been the subject of a number of previous investigations by the New Guinea Research Unit of the Australian National University, so that useful supplementary data were to hand.

As the control community, I chose Inonda, which had similarly been a sample village where the New Guinea Research Unit had collected data. This village belonged to the category that had never been evacuated, but had played host to a village of evacuees, Sewa, which has close consanguineal links with Inonda. One might argue that a better choice of a "control community" would be one lacking all links with the eruption, but such a village would have been hard to find close to the mountain. I feel sure, in any case, that the presence of the Sewa people after the eruption did not affect the variables in which this study is interested.

While the material on Sivepe and Inonda fulfills the formal requirements of this study, I felt I should present a somewhat

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepa, with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepa a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hohorita, after we stopped residing there. The head teacher, Mr. Harold Haru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Mosy, Belshaw, Keesing, Crocombe, Hogbin, Rimbidi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

Section 3: The Day of the Eruption

121 As the eruption itself is the central event of this entire
128 report, I shall dwell upon it in some detail. I shall discuss it
from five vantage points: the vulcanologist's, the experience of
the Sangara people, the Sivepa and the Inonda people, and finally
133 the action of the administration. The vulcanological aspects have
731 been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption
of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours
on Sunday, 21 January, 1951, a paroxysmal explosion burst from the
crater and produced a nuée ardente which completely devastated a
surrounding area of 68 square miles." This explosion had a marked
resemblance to that of Mount Pelée at St. Pierre on Martinique in
1902, when 29,000 people perished in a few minutes. The effect of
the Pelean type of explosion is very different from the more usual
one which is called "Vulcanian," and which occurred, for instance,
at the famous eruption of Vesuvius described by Pliny. One may
compare it, rather, with the effect of an atomic bomb; the lethal
effect of the nuée ardente seemed to be due mainly to sudden damage
to the respiratory system caused by inhaling hot dust. Almost 4,000
people were killed. Destruction in the inner zone of devastation
was almost complete: the rain forest on the slopes was flattened
and in some places the earth was swept bare, not even stumps
remaining as evidence of the previous forest cover. At Higaturu,
six miles from the crater, only one house remained reasonably
intact; most of the buildings on the government station were
carried away. Of the people who lived in this inner zone of
devastation scarcely a single one remained alive.

Taylor classified a further 2? square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Hohorita came from villages such as Tunana, Seamu, Sebundeturu, all of which lie in the area of partial devastation. From the village of Sombo, on the boundary of the area of complete devastation, one man escaped (Table 1).A

731 I interviewed members of 15 Hohorita households about their
[124] experiences during the day of the eruption. Some of them escaped because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Asbogo immediately

A [See Cat. 116, p. 205--Analyst]

731 during the night. It did not, however, become a rallying point for resettlement organisation. It was too close to the mountain. Half an hour after the eruption, crowds of Orokaiva carrying pigs, dogs and babies, were already rushing past Awala Station westwards along the road to Kokoda. All these people from the Western slopes stopped at the Wasata Mission, a few miles past Awala, as they were reassured by the presence of a nucleus of Australian organisation. The Sivepe people and others who came from a relatively greater distance, stayed at Awala the night of January 21 and some reached Wasata the next day.

Along the Eastern side of the Mountain, among the settlements along the road to Oro Bay, there was no acute danger, but there was fear. Inonda, which was chosen as the control community, was never "resettled "in the sense that its people at any time left their village lands. When they saw the ash and smoke they did, however, consider themselves in danger because of the anger of Sumbiripa. Perhaps in response to police messages, perhaps spontaneously (Inonda informants say the latter) they shifted to the Inonda air strip, which was about a mile along the road in the direction of the coast and there waited for the white man to arrive. Meanwhile, the people of Seva, a related village close to (but well without) the line of partial destruction as shown by Taylor, evacuated their village and joined their relatives at Inonda. This was a more orderly evacuation than most, because the Papuan deacon (who lives at Inonda today and whom I interviewed) had somewhat varied the District Commissioner's message when he delivered it in church on that fatal morning. Though he followed his instructions by advising the adults to remain at Seva, he also said that they had better send their children to Inonda. Thus, when the mountain erupted some time after the service, the children had already gone. Upon arrival at Inonda, the Seva people joined their hosts and camped by the airstrip.

Section 4: The Beginning of Administrative Action

If it had not been for the influence of European administration, this flight from the mountain would probably have been followed by a fairly early return. Administrative measure, at first aimed purely at the relief of distress, soon began to include measures to restrain the fugitives from returning. These measures followed vulcanological predictions, this time based on sound scientific investigation, concerning the likely future behaviour of the
● 12 mountain. In considering administrative action, there are four
128 aspects to be distinguished: first, the investigation as to the nature of the disaster; secondly, the organisation of food and medical supplies and other immediate relief measure; thirdly, a

121 vulcanological study to guide future policy and fourthly, the
128 planning of longer-term resettlement, with which this report is principally concerned.

During the first day, communication was a difficult problem.
731 A plane sent to Popondetta on the day of the eruption could not land. All official radio communication channels in or near the devastation area were broken down. The government in Port Moresby was informed about the disaster by radio through a private transmitter owned by Mr. Searle and operated from Awala. In the afternoon a car containing an agricultural officer and a technician from the Anglican Mission (Mr. R. Hart) traveled from Popondetta to investigate the situation. This car, after making inquiries at Sangara Station, reached Awala and reported to the government. In the evening there was a second eruption, this time without a nuée ardente but noisier than the morning eruption, the fall of ash was heavier and much larger stones were ejected over a larger distance. The fall of ash was heavy enough to warrant the closing of the aerodrome at Port Moresby, some 140 miles away, on the following morning due to limited visibility. Searle has to stop transmitting messages from Awala as too many stones were falling and an electrical disturbance made transmission impossible. He shifted to Waseta which then became the centre of organised activity on the Western side of the mountain.

On Monday 22 January, the full resources of the administration were directed at rescue work. The Administrator, Col. J. K. Murray, and the Director of Health, Dr. J. Gunther arrived at Popondetta. Mr. Fred Kaad, an officer of the Department of District Administration (now Head of the Australian School of Pacific Administration, Sydney, where I interviewed him) was seconded from Lae to head an organisation to help the fugitives. On the Monday, he reached Popondetta and paid a brief visit to Inonda airstrip. The vulcanologist, G. A. M. Taylor, arrived the same day and began to observe the mountain which he continued to do for two years, being present for all the main active phases of the post-climactic period. At Waseta, the immediate food shortage was relieved from Mr. Searle's stores, but soon food, medicines and blankets began to be air-dropped. At Inonda, an expedition was organised to find missing people from Seva; some Seva people who had been wounded by the eruption were flown to Popondetta for treatment. Mr. W. Schleusner, from Sangara Estate, visited Higaturu and reported the devastation; he counted 200 dead. A district office was set up at Popondetta, to replace the destroyed office at Higaturu; from this office it was decided, on the same day, that refugee camps were to be established at Cape Killerton, for the Sangara survivors and all others from the Eastern and Northern side of the mountain, while the people from the West, now mostly gathered at Waseta, were to be encamped at Wairope, by the side of the Kumusi River.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Mongi to Agenahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [629] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Waseta, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

121 128 657 Under this heading there are three aspects to consider: the participants, the procedure and attitudes towards the necessity of relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

CHAPTER 2: Physical Environments

Section 1: General Remarks

731 I have shown in the last chapter that the surviving victims of the Mount Lamington disaster were resettled on land they owned (or close to land they owned) prior to the eruption. Thus, resettlement did not lead to a lasting change in physical environment. Certainly, upon their return, the people found their houses beyond repair due to damage done by stones and other volcanic materials; the village grounds were gutted with holes and some trees destroyed. It did not take them longer than a year, however, to build a new village. After the first year, they no longer needed government supplies for subsistence; they were able to plant out their own taro seedlings and re-establish their traditional crops.
[121] Nonetheless, certain minor changes in topography and resources occurred at Sivepa, and these must be briefly mentioned.

121 It will also be necessary to refer to differences in physical environment as between the community chosen for special study (Sivepa) and the control community (Inonda). It would undoubtedly have improved my research design if the physical environment in the two villages could have been more or less identical. I should therefore explain why this flaw could not be avoided. Ecologically, certain definite differences exist between land close to the volcano and land on the lowlying flats to the North and East: differences in soil composition, rainfall and population density, to mention only a few basic ones. Though these differences are overshadowed by near-identity in culture and language, they will inevitably intrude in a study as detailed as the present one. It would have been ideal if a control community could have been found which resembled Sivepa in ecology but which had not experienced resettlement. Such villages, however, did not exist, as all the Orokaiva on the slopes of the volcano were evacuated and underwent, in some form or other, the same kind of experiences as Sivepa. Hence, in the present chapter, a comparative study of the ecologies of Sivepa and Inonda must be undertaken.

There is a second question to which brief reference must be made here, namely the effect on physical environments of changes in land utilization. Throughout this report we shall be comparing conditions at the time of the eruption and the present. In the intervening period, cash cropping has become established among the Orokaiva on a significant scale and other significant cultural changes have taken place. We should therefore inquire what effect

121 these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout the year, both in Sivepo and Inconda. The Inconda people think that the nights at Sivepo (and on the mountain generally) are rather cold and it is true that in Inconda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [821] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [789] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geerts, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inconda rainfall is somewhat below that of Popondetta; Sivepo rainfall is significantly higher than at Awala. Thus Inconda usually gets 80 to 90 inches of rain per year while Sivepo gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [821] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepo; in May-September at Popondetta and Inconda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

In October the heaviest rains begin and this is the period 132 when crops grow fastest. Thus the crops planted during the dry 241 period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the ideological pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

731 The experience of the eruption led to outside contacts that
177 would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the
121 eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

571 We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which
619 displayed a true corporate unity. Thus village A would have close
628 relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

571 Patrilineages were very shallow in genealogical depth.
613 Though the kinship structure would need to be classified as
591 predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

571 The social universe of the different families diverged markedly from one another; the small number of extended families composing a minor patrilineage (marked by the possession of a common plant emblem) would share each other's social network and obligations to a large extent, but the same could not even be said for clansmen of different plant emblem groups. In such a culture, the term "outsider" must be situationally defined. For certain situations, only those who share a clan emblem are insiders; for other situations, only clansmen; for others, only residents of the same village, while I can also think of situations where the group of "insiders" embraces a much larger group. We may list the following set of widening concentric circles, as useful for the present study:

(a) Closely allied villages (especially Sivepa, Garoubi, Binduta)
(b) The Sasembata district: defined as comprising Sasembata parish or the three Sasembata local government council wards. This is an area close to the road from Kendata to Boru, and never more than an hour's walking distance away from it.
(c) The wider solidarity group to which Williams and several other earlier authors have referred as the "Waseta tribe" (see map)
(d) The indigenous population of Ilimo camp
(e) The "Orokaiva" people
(f) Papuans and New Guineans other than Orokaiva, without special administrative roles
(g) Papuans and New Guineans with offices in the administration, and the Church
(h) Chinese traders
(i) Persons referred to as "kaupa" (white men)
(k) The Americans (a special, and by this time somewhat mythical category)
(l) White men believed to be dead ancestors who have returned

For the purpose of this study, I have avoided systematic reference to social structure and emphasized residence rather than kinship. The Inonda pattern resembles, in general, that of Sivepa, except that the sparseness of the population makes the immediate [628] social environment somewhat simpler. Sivepa has significant relations of one sort or another with dozens of villages; Inonda's social universe hardly comprises more than half a dozen, and small ones at that. On the maps Inonda is shown as part of the Sausha "tribe," but Crocombe and Hogbin treat Sausha as simply another clan in the vicinity and it is likely that the larger military grouping of which they formed part were Monckton's dreaded Dobuduru.

121 It is our task to consider changes in the patterns of contact with each of these 11 categories of outsiders (as between

January, 1951 and 1967), both in Sivepa and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

The concept of a "closely allied" village is a difficult one: it is not often, in these days of peace, that a village really acts as a corporate unit, so that contacts between villages tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Hohorita, with 400 inhabitants, when an old man died at Soubou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepa, Inonda,

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts [651] generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

●121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly [178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

As I am at present discussing only unorganised contacts
464 between villagers, I can give only one clear instance of changing
166 attitudes and this is in Popondetta itself. Popondetta, the new
633 administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts [162] of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other public questions, and develop a wider interpretation of the situation
633 of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

fraternised with them. In fact, the friendly atmosphere created by both the American and Australian troops during the war gave the Orokaiva a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

In all the villages I visited, people listened to the news broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange: it was a great pity that those American boys were being killed in Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

The self-group image of the Orokaiva has undergone a profound change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8, to set out first the present self-group image and its general development over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indians), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was
121 a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

PART II: INTERNAL INFLUENCES

CHAPTER I: Size and Distribution of Relocated Community

Section 1: Statement of the Problem

121 This report is intended to answer one general problem: what has been the effect of collective evacuation and resettlement upon one Orokaiva community ((Sivepa) directly affected by the eruption of Mount Lamington. In order to establish this effect, we are studying Sivepa as well as a control community (Inonda) that was not evacuated and resettled. In the first part we have made one assumption which obviously can never be accepted without question and which, in fact, we shall find to be partly false: namely, that the two communities can be regarded as homogeneous. We have tended to speak of "Sivepa" and "Inonda" as though internal variability could be ignored. At the same time, I did stress at various points that I thought one of the differences between Sivepa and Inonda might be that in Sivepa acculturation had proceeded relatively homogeneously whereas in Inonda the range of variation was wider.

A hypothesis of this sort can be tested only by a systematic study of internal variation in the two communities. In this and the following chapters I shall introduce a number of classificatory principles, commonly used in social anthropology. After classifying individuals in Sivepa and Inonda by these principles, I shall be able to compare the two communities in respect of internal patterns. The first principle to be chosen is that of spatial arrangement. Closely associated with this are the principles by which the Orokaiva themselves view their communities as subdivided into bounded social groupings. My procedure will be, first, to state what are the Orokaiva principles of classification, which apply to both communities alike. Secondly, I shall set out how the two communities under consideration can be classified according to these principles and in what respects they exhibit similar or dissimilar patterns. Where patterns are dissimilar, an explanation for the differences will be attempted and I shall consider whether the post-eruption experiences may have been a factor.

Section 2: Spatial Arrangement

621 The Orokaiva concepts connoting residence units that may be
361 found in a village are mainly three: da--village, bande--house and

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16) shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a bridepri.e to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals who seemed to play a key role in development. The study of these key individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilance when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

CHAPTER VIII: Factionalism

121 In the preceding chapters I have invoked a number of principles
621 of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), acculturational categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 In Sivepa we found political membership groups (clans) which
665 showed marked differences in certain acculturational indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepa, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepa, though perhaps it was easier to challenge in Inonda, where there is a "big man" as
665 leader. Another classification, namely between male and female,
562 should also perhaps be briefly considered as, under the impact of the women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepa, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

To what extent can one speak, in these villages, of factionalism?
● 121 This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt to take sides along this predictable lines of division. Among the
[578] Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepa, were hardly ever repeated from one occasion to the next. Factionalism in Sivepa was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined. In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

In an earlier chapter I described a ceremony for children about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the village boundaries. When the children came back to the village (which was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little different for my interpreter who had been to Martyr's School and who therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

425 trespassing there. Bishop David recalled, in my interview with him,
65] how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two
[361] miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

361 The shift from Irihambo was a gradual process, during which
657 several groups set up new villages independently. Today, the population of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Sasembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the
[177] Sengara people had become rather rapidly acculturated. By the criteria
[73] used in the present study, acculturation had progressed rather more rapidly than at Sivepa, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepa: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

It was the general hypothesis of this comparative study of ten
73] displaced communities in the Pacific that displacement would lead to
177] accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the
[121] relocated community but lacking the experience of relocation. In the case analysed in the present report, the experience of displacement at Sivepa was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A [See Cat. 116, p. End Map 12--Analyst]

731 to the pre-eruption village. Furthermore, the control community
177 differed in minor ways from Sivepa both in ecology and in traditional social structure. Certainly this report has pinpointed a number of differences in the acculturation history of Inonda and Sivepa; it has probably been rather less successful in determining whether these differences are due to the displacement experience (and subsequent government and mission initiatives) or to the ecological and cultural differences which existed between the two communities at the time of the eruption, and which were further accentuated when Popondetta became the administrative centre, thus placing Inonda appreciably closer to the centre than Sivepa.

121 I made a study of Hohorita because I felt it would perhaps provide more cogent evidence. Here resettlement followed a cataclysm during which over 90% of the population died; furthermore, the ecology and culture of Sangara was very close indeed to that of Sivepa. I was struck, during my study of Hohorita, by the evidence of far more rapid acculturational changes than I found at Sivepa. Hohorita, to put it briefly, produced more intellectuals and also more coffee than other communities that had been less afflicted. This seems to suggest I might have done better to take Sivepa and Hohorita as my sample communities, as I would have been able to show more striking differences in spite of greater ecological and cultural similarities. I rejected this idea because my study would then have been methodologically anomalous in the framework of the total project in which the nine other investigators had used a different research strategy.

Nonetheless, the study of Hohorita is of very special anthropological importance as it shows strikingly how a primitive community reacts and adjusts to a cataclysm. The fact that the presence of the Australian government and mission provided the community with some additional adjustment opportunities hardly detracts from the interest of the case. It is impossible to do justice to the subject in this epilogue. Not only would this take too much space, but the time pressure under which this report is compiled also makes it impossible. As Hohorita has a population of 348, the genealogies, lists of educational, occupational, residential data, the statistical evidence of the inter-village relationships are all most complex and will need to be analysed out of 650 pages of field notes. These notes are at present no more than lists of names related to individual families. All I can do here is to give my own preliminary impressions of the material, coupled with general descriptive data. Nonetheless, I hope that I can thus show some of my findings from Sivepa in a broader setting and draw attention to a few basic issues.

2

Appendix

0121 Outline of variables influencing change and stability.

I. External influences

A. Circumstances contributing to the decision to relocate.

1. Initiating conditions--land shortage, volcanic eruption, drought, factionalism, isolation, economic depression (as in 1930's and post-war), etc.

2. Source of suggestion to relocate--government, native leaders, example of other communities which have been relocated, etc.

3. The decision to relocate.

a. The participants--total community, native council, individual families, etc.

b. The procedure--presentation of the argument for removal, advance inspection of new location, voting, emergency evacuation, etc.

c. Attitudes toward the necessity of relocating--differences, if any, between individuals or classes such as men, women, young, old, leaders, government officials, educated, prosperous, differences at time of removal and later, between early and later emigrants, etc.

B. Physical environments

1. Climate-effects of temperature, storms, seasonal fluctuations, etc. on clothing, housing, subsistence activities, outside contacts, etc.

2. Topography--effects of size, relief, beach area, streams, water table, reefs, etc. on village ground plan, paths, roads, location of farm land, groves, internal communication, subsistence activities, etc.

3. Resources--availability and exploitation of local products for food, construction or commercial purposes.

4. Location with respect to other islands--effects on visiting, wage labor, canoe construction, commercial development, acculturation, etc.

121 C. Social environments.

1. Opportunity for contacts (both before and after relocation) with individuals who do not belong to the community.

   a. Identity of the outsiders--Australians, Americans, British, French.

   b. Status and role of outsiders--administrators, missionaries, other natives, ships' crews, armed forces, tourists, employers, traders, guests at celebrations, etc.

   c. Differential opportunities--young, old, men, women, chiefs, officials, spokesmen, etc. (e.g., do women of the community have opportunity to meet British women or British men; do only leaders of the community have appreciable contact with outsiders, etc.?)

2. Actual amount and kind of contact by young, old, women, etc.--daily, periodically, planned, casual, incidental, impersonal, commercial, social, etc.

   a. Intermarriage--rights and obligations with respect to affinal kinsmen, economic cooperation, etc.

   b. Friendships with outsiders.

3. Locale of contacts--within the village or outside it.

4. The initiators of contacts--village members or outsiders.

5. Differential reactions to categories of outsiders--Americans vs. British, Europeans vs. indigenous neighbors, traders vs. guests, etc.

6. Attitudes toward neighbors--superior, suspicious, hostile, aloof, critical.

7. Attitudes of neighbors toward them--hospitable, indifferent, resentful, contemptuous, etc.

8. Self-group image--misunderstood, mistreated, unlucky, indomitable, leaders, pioneers, representatives of their people, failures, etc.

121

9. Acculturation--learning new skills from contacts, adopting outsiders' customs, accepting alien foods, becoming involved socially or ceremonially with outsiders through intermarriage, employment, entertainment, accepting favors, etc.

10. Impact on community organization with respect to:

    a. Leadership.

    b. Interpersonal relations, including those among kinsmen.

    c. Work groups, including labor for village benefit.

    d. Social and recreational groups, and the occasions when they function.

    e. Religious activities.

    f. Cooperatives and other commercial enterprises.

    g. Individualism and independence of primary kinship groups.

    h. Expedients and temporary procedures and patterns of behavior.

B. Contacts with congeners, of which there are three categories: 1. Contacts before relocation (such as Gilbertese and Ellice Islanders living and working together on Ocean Island, Tarawa, and Canton). 2. The relocated community maintaining contact with homeland (such as the Kioans and their friends and relatives on Vaitupu). 3. Two relocated communities in communication (such as Sydney and Gardner or Kios and Rambi).

1. Kind and frequency of contact--visiting, correspondence, returnees to homeland, new immigrants, joining relocated community, celebrations, reciprocal exchanges, schooling of children, etc.

2. Encouragement of contacts or the lack of it.

    a. Government policy.

    b. By community leaders at home and in relocated community.

[p.231]

121

3. Congener contact and morale of relocated community--homesickness, insistence upon maintaining identification with homeland and its customs, severance with traditions of the past, pride as pioneers, dissatisfaction or self justification resulting from comparison with others, fear of losing land and other rights and privileges at home, etc.

E. Disease

1. The community as a carrier of disease.

2. The community as a victim of unfamiliar disease.

3. The community's perception of new location as healthy or unhealthy.

F. Government welfare efforts. In all instances attempt to determine extent of government efforts to a) adapt measures to traditions of community, b) plan measures in consultation with community leaders and c) whether an action, a procedure, or an innovation was proposed by a government official or by a member of the community.

1. Relocation plans and their implementation.

a. Reasons for choosing the site for relocation.

b. Relocation procedure--reconnaissance party, resettlement officer, advance work party, "waves" of immigrants, assistance in construction of village, initial living arrangement for settlers, etc.

c. Relation of settlers to homeland--renounce land rights, foreclosure of possibility of return, other persons or groups permitted to occupy vacated lands, payment for expropriated homeland, income from produce of homeland (e.g., phosphate), etc.

d. Traditional value placed on land ownership--basis of social control and prestige, secondary to use rights, fishing rights, and other forms of property, etc.

e. Land tenure in new location--government policy, communal lands, individual ownership, system of allocation (e.g., by drawing lots, by priorities, by individual choice), size of plots, the unit of allocation (e.g., individual, family, or clan), land survey, temporary or permanent assignment, use right or ownership, etc.

121

f. Duration of relocation (i.e., does this variable affect adjustment?)

g. Number of relocations.

h. Actual or alleged governmental encouragement of hopes to 1) return to homeland or 2) relocate a second or third time.

2. Health measures.

a. Provision of dispensaries, hospital service, medical aides, drugs, etc.

b. Public health programs--mosquito control, innoculations, latrines, sanitation regulations, etc.

3. Economic assistance.

a. Subsistence--issue of cuttings and seeds, advice and demonstration by government agricultural and fishing experts, etc.

b. Issues of food in initial or other stages of the community's development.

c. Advice and assistance in commercial enterprises--rewards for land clearing, subsidy of cooperatives, provision of transportation for copra, logs, purchase of products, price stabilization funds, abeyance or imposition of land or head tax, import or export duties, etc.

4. Education.

a. Extent available--in or out of village, boarding schools, both sexes, etc.

b. Extent required--e.g., compulsory, age requirements, standardization of curriculum, etc.

c. Sponsorship--government or church.

d. Teachers--source of pay, training of, ethnic affiliation of, family status of, language of instruction, etc.

[p.233]

121

e. Provision of school buildings, educational materials.

f. Attitudes toward government.

C. Mission welfare efforts--consider all items above (under "Government welfare efforts") that are relevant.

1. Others--including recreation, community projects (e.g., house improvement, health campaigns), teacher-preacher combination, ethnic identity of pastors, religious affiliation of pastor, change in religious affiliation with relocation, pastor's identification with community, community support (material and otherwise) of the pastor.

B. Selection of emigrants.

1. Non-selection, i.e., all members of the community relocated.

2. By government--regulation of removal by establishment of quotas and priorities by such criteria as age, family connections, status, skills, labor potential, health, amount of land available at new location, poverty at home, etc.

3. Self-selection, i.e., community members individually or collectively decide who is to relocate (Examples: Kioma, Catholic families on Giso moved to Loga).

a. Reasons--join kinsmen, support aged family members, join co-religionists, factionalism, etc.

4. Piecemeal vs. total removal at one time--effect on family and community solidarity, cooperation, leadership, morale, mutual assistance, subsistence potential, manpower available, etc.

II. Internal influences

A. Size and distribution of relocated community--concentrated in one village, segmented in two or more hamlets or villages, dispersed on individual homesteads.

1. Attitudes toward maintaining (a) concentration, (b) separation from neighbors.

|12|

B. Socio-economic factors--age, sex, marital status, divisions of labor, money income, occupational skills, available manpower, eligible mates, dependents, education, etc. of community members.

C. Homogeneity or heterogeneity in background of community members--all from one village originally, or from one island, or from one region (e.g., Kios and Kili vs. Sydney and Giso communities). Differences with respect to dialect, traditional histories, affiliation with groups not represented in community, etc.

D. Degree of acculturation at time of relocation--missionization, government regulation, abandonment of indigenous customs (i.e., those antedating contact with Europeans and Americans), adoption of foreign dress, foods, house types, etc., wage labor, use of money, formal education, bilingualism, etc.

E. Familiarity with new homeland at time of relocation--limited to reconnaissance by community representatives (e.g., Kili, Sydney, Giso), known from visits prior to time issue of removal arises (e.g., Paume and Epi), known by tradition or hearsay (e.g., Rongerik).

F. Addition and loss of members--births, deaths, intermarriages, adoptions, friendships, repatriations, continuing immigration, community segmentation, residence in urban centers or on plantations, etc.

1. Reasons, when relevant, e.g., desire to reunite divided families, securing heirs, joining adherents of same religious faith, government policy and regulation, land shortage, labor opportunities elsewhere, schooling outside of village, etc.

G. Key personalities within the community; i.e., individuals who have had a significant influence on the course of events in the community's history.

1. Non-native as well as native residents of the community--resettlement officers, advisors (e.g., Kennedy, Laxton)

2. Other native residents as well as community members--teachers, pastors, policemen, spouses, etc.

3. Social isolates, marginal individuals, "loners", "trouble makers", etc.

121 H. Factionalism--religious, political, ethnic, generational, acculturational, etc.

I. Adherence to tradition.

1. Actual vs. alleged--optional observance of customary patterns of behavior, informants' description vs. anthropologist's observations, rationalizations for deviations from traditional norms (e.g., "it is temporary," "we can't get what we need," "young people don't care," "it is too much trouble").

2. Controls operating for and against continuance of tradition--training of young people, regard for elders, fulfillment of reciprocal obligations to kinsmen and community, sensitivity to opinions of friends and relatives at home, ease of escape from community obligations, formal mechanisms for reward and penalization (councils, police, courts, committees).

J. Esprit de corps.

For what is intended under this caption refer to Ralph Linton's Study of Man, pages 92-94.

[p. 236]

23: Keesing E-5 (1951) 1952
OJ23 Orokaiva OJ23

The Papuan Orokaiva Vs Mt. Lamington: Cultural Shock and Its Aftermath

Felix M. Keesing

What happens when people are subjected to unexpected catastrophic shock, dislocating their whole round of life and making a sudden break in cultural continuity? This occurred to some 9,000 Orokaiva in northern Papua when Mt. Lamington erupted on January 21, 1951. Some 4,000 Orokaiva and all of the approximately 50 whites at the Government and Mission stations in the main blast zone were killed. The survivors were forced to flee from ash-choked homes and gardens.

At the request of the Administrator of Papua and New Guinea, the writer and his wife visited this area some weeks after the main eruption and shortly after a second major blast. The purpose of the visit was to make a brief survey of the relief and rehabilitation operations set in motion by the Australian authorities and to give any advice possible. This area was one of the great battlegrounds of the Pacific war—the Kokoda-Buna-Oro Bay area—and since there are still a number of usable airstrips and jeeproads, it was possible to cover the emergency camps and other Government and Mission operations by plane, and then by jeep, canoe, and on foot, and to get some sense of the consequences of this catastrophe and of the problems involved.[1]

This paper does not purport to be based on profound knowledge of the situation for it will take a long while before its total dimensions can be properly assessed. Rather it is designed primarily to raise questions: some of theoretical significance, particularly regarding the responses of such people to cultural trauma of the first magnitude, and others from the "applied anthropology" aspect, relating to choices possible in official and mission policies in the wake of such a destructive experience.

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1. The actual field survey, covering approximately five days, was made in the company of Colonel Elliott Smith, District Commissioner in charge of relief operations, and included discussions with virtually all of the Government technical personnel, with representatives of the one Mission body operating in the area (the Anglican Mission), and through interpreters with some of the Orokaiva leaders. Discussions were held, too, with the Administrator, Colonel J. K. Murray, and other administrative personnel at the capital, Port Moresby, all of whom had been in an out of the devastated area from the beginning, and relevant official records were made available by them.

[p.16-A]

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and so the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[744] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

73 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimulation and education of a voluntary and permissive type. Con-
121 sidered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p.22-B]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

11

WHAT DID THE ERUPTION MEAN?

Erik G. Schwimmer

INTRODUCTION

121 How should anthropologists study a nonrecurring event? It is obviously of interest only if it is paradigmatic of some social law. But what kind of law? The question has often been faced and, most of the time, one of two answers has been given. The literature on this question has recently been surveyed by J. Kingsley Garbett in an essay, "The Analysis of Social Situations" (1970).

Garbett defines a social situation as "a temporally and spatially bounded series of events abstracted by the observer from the ongoing flow of social life" (1970:215). He summarizes the two types of analysis that have been made as (1) depending on some concept of a typical actor as performer of roles and (2) depending on a concept of the typical actor as a manipulator, the limits of whose rationality are specified.

Neither of these methods accounts for the "social situation" discussed in this chapter—the eruption of Mount Lamington in the Northern District of Papua (map 14). I therefore turned to a semiotic approach based on methods developed by Lévi-Strauss (1960) and Barthes (1964b). Semiology, as defined by Saussure, is "a general science of signs." This science studies systems of signs according to methods which will be indicated in the course of this chapter. The term "semiotics" was introduced by Margaret Mead. If this method is to be applied to the study of nonrecurring events,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

121 the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

731 Such an asumption is legitimate in the case of the eruption of
787 Mount Lamington. In the view of the great majority of my Oro-
823 kaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would cal forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

[121] Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that [184] emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of hese systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological dfferences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transacions.

121 Such data aise several questions that merit close examination.
731 If all Orokaiva had placed the eruption within one logically con-
823 sistent framevork of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present
184 case we find bur ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one anotier in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

121 Another question is whether ideological discourse about the
731 cause of the eruption deals with all or some or any of the basic
829 conflicts identified in the society by ethnographic study and analysis. My data dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

agree, nonetheless, with Sebeok's contention (1970) that semiotics is not merely concerned with a "secondary language" but is an independent discipline for decoding sign systems which are often not at all linguistic.

Among the concepts drawn from linguistics is the notion of a "sign" composed of a signifier and a signified. While many linguists do not concern themselves with the signified (which they tend to relegate to the realm of psychology), in semiotics the relationship between signifier and signified is the chief object of study. We may put this differently (with Hjelmslev and Barthes) by saying that a sign has a level of expression and a level of content. Furthermore we may distinguish, at each of these levels, between form and substance. Semiotics differs from linguistics in that the signifiers often do a great deal more than just signify something. For instance: the eruption of Mount Lamington did a great deal more than emit an utterance; it emitted enough substance to change the landscape of the entire district.

Semioticians argue that whatever object we use to serve our needs and whatever object affects our destiny obtains a semantic value, becomes a sign. Wearing a raincoat not only protects; it also signifies some fact about the weather. In Papua, wearing a banana leaf signifies that it is actually raining; wearing a raincoat may mean no more than that it is likely to rain. Barthes speaks, in this connection, of "functional signs": on the level of expression, the form has semantic value but the substance is utilitarian, going beyond signification.

Our concern in this chapter is to describe the frameworks of meaning attached to the eruption of Mount Lamington. Therefore we are dealing with what Barthes has termed complex semiotic systems. To show why this is so, let us first consider the primary sign system. Hjelmslev (1963) represents a sign by the formula ERC, where E is the level of expression, C the level of content, and R the relation between the two. To give a semiotic example, in the Road Code the level of expression (E) is made up of the colored signals and the level of content (C) is a set of orders given to drivers of motor vehicles. The relationship (R) between the lights and the orders arises out of a system of legally sanctioned conventions. The total sign is ERC.[2] Here the level of expression (E) is made up of volcanic phenomena and the devastation they caused. At the level of content (C), informants explain that the anger of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

121 mountain or of God is demonstrated by geophysical phenomena. But several other questions at once present themselves: Why was the mountain or why was God angry? To discuss this question we need a metalanguage in which we can define terms such as "anger," "Sumbiripa (the mythical master of Mt. Lamington)" and "God." Hjelmslev and Barthes call this a "denotative system": the level of content (C) is made up of a second system of signification (ERC).

There is another system of signification, called a "connotative system," which has been studied far less than metalanguages but is of great importance in semiotics. For instance, wearing a raincoat and wearing a banana leaf do not, for a Papuan, have the same connotation. Wearing a banana leaf connotes that one is a simple villager; when a Papuan wears a raincoat, it connotes that he is going to town or for some other reason wishes to emphasize his familiarity with European custom. A connotative system is a system (ERC) whose level of expression (E) is itself made up of a full system of signification.[3]

Differences in the signifier which are insignificant in the primary system (a raincoat and a banana leaf both protect against rain; there is no difference on the level of content) become significant in the connotative system as signaling differences in social position. Connotative systems are frequently used in the art of persuasion. If one wishes to persuade another person to choose one alternative over another, a frequent technique is to invoke an appealing ideology by the use of appropriate rhetoric. Thus an advertiser may evoke in the reader's mind an image of a desirable way of life and then persuade him, by a clever use of analogies, that a product he wishes to sell opens a way to this mode of life.

The difference between systems of connotation and denotation is not always easy to mark in the material analysed in this essay. For instance, discourse about the eruption not infrequently served the purpose of proving that one tribe was better than another, that white power will disappear, that white man's science is the road to Papuan salvation. Could one seriously maintain that the meaning of the eruption lay in propositions of this kind? One may rightly say that those who put forward such propositions, while ostensibly explaining the eruption, were in actual fact using a rhetorical device to promote their own ideology. On the other hand it is impossible to go far in the analysis of Orokaiva or Yega metalan-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

guages without ending up with a construction of the type just quoted.

What Lévi-Strauss demonstrated for primitive thought in general applies in large measure to the thought of the Orokaiva: metalanguages are constructed in such a manner that associations between signs provide causal explanations. Hence, in a purely formal sense, there may actually be no "level of content" in Orokaiva discourse, but only an endless chain linking different signifiers together by principles of association.[4] Thus every metalanguage among the Orokaiva is reducible to systems of connotation.

In the circumstances it may be argued that the distinction made by Hjelmslev and Barthes between systems of connotation and denotation ought to be abandoned. I think, however, that it has some utility in distinguishing phases of the Orokaiva thought system—that is, a phase where the main concern seems to be explanation and a phase where the main concern is rhetorical and ideological.

In this chapter, I have applied semiotics in the context of the anthropology of development. I shall deal with several hierarchically ordered systems. The largest is the regional colonial macrosystem, comprising on the one hand the Papuans of the Northern District and on the other the colonial power foci, administration and mission.[5] Below this is the tribal level, consisting of an Orokaiva and a Yega cognitive system. In the Orokaiva system, several subtribal systems exist in opposition to one another. Two of these, the Waseta-Isivita and the Sangara system, are considered in this chapter. As each person is at the same time a member of a subtribe, a tribe, and the regional communication system, each person has access to, and potentially draws upon, a plurality of systems of thought, so that contradictions normally exist between the various views held by the same person within the context of different systems.

Environmental circumstances act on these various semiotic systems not by creating them but rather by changing the emphases placed on some of the available systems at the expense of others. Thus cultural changes become apparent as changes in the emphases placed on alternatives present in semiotic systems. This raises a problem of obscurantism. Since the evidence for a semiotic system is made up, in the first instance, of informants' statements, it may reflect no more than a "conscious model" of the system while highly important aspects may be suppressed for ideological reasons. For instance, if the evacuees desired a "new age,"

why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

THE EVENT AND ITS SETTING

On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor 1958:7).[6] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1).[7] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homogenous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

rather than security was the main motive. Villagers were able to use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hospital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[1]

My research included three intensive studies of single villages. The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 persons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[2] This third clan group returned to Sivepe early in 1952. Sivepe was rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was concerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

tion to the mission station. The government had demonstrated in the most tangible way that it accepted broad responsibility for the people's welfare in a time of crisis and would act with great generosity in such circumstances. The mission, which likewise had established close relations with the people of Ilimo, had subsequently remained to develop those relations.

As a control group for the study, I used the small village of Inonda, 12 miles from the crater and outside the restricted zone. Inonda differed from Sivepe in that its population was never evacuated or relocated. It continued to use its own land. The comparison of Sivepe and Inonda thus provides a measure of the effects of actual relocation as distinct from other experiences the two villages had in common. In Inonda only one-fifth of the land is arable; none of it is as fertile as the volcanic loam of the Mount Lamington foothills; rainfall is lower than in Sivepe and so distributed that lengthy droughts are not uncommon. Drainage is inferior while population density is only ten persons per square mile.

Inonda acted as host for the population of Sewa village who fled their homes on the morning of the eruption. Among the fugitives was a mission teacher who set up a school in Inonda. When he was later transferred to another district, Inonda pleaded fervently and successfully to get him back. Today Sunday services are given by a lay preacher and children attend a mission school several miles away which teaches up to grade two.[10] Interaction with government and mission authorities was far less intensive at Inonda than at Sasembata.

The third village I studied was Hohorita (population 348), 7 miles from the volcano, with soil largely similar to Sivepe's, good rainfall, good drainage, and a population density of 135 persons per square mile. Hohorita is made up of the survivors of the Sangara tribe, once 4,000 strong, which was almost entirely wiped out by the eruption. The survivors were evacuated to camps along the coast and then allowed to return to the boundary of the restricted area, where they built a village called Irihambo. They were ordered to leave this village some years later (as it was situated on crown land intended for the settlement of Australian ex-servicemen) and then established Hohorita in 1957–1959. The Hohorita people, like other relocated groups, had had intensive contact with government and mission personnel. An unusually large number entered skilled occupations, partly because the San-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

Connotation	Explanation			
	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that instead of timeless constructs of primitive philosophers we are occupied with a series of historical events both before and after the eruption, all of which became signs much in the same way as the eruption; the explanation will take the form of the tracing of associations between these signs. There are, however, some stable principles governing these connections. We turn to these first.

I have argued elsewhere that the social structure of the Orokaiva is characterized by a weak patrilineality with small corporate groups but that exchange transactions between these groups are, in many respects, highly structured (Schwimmer 1970a, n.d.). These exchanges follow rules which are justified by an elaborate system of thought arising out of the principle that gift making is the source of social potency and exchange is the measure of that potency. Such a system, by its very nature, makes no assumptions about the permanency of social associations, as it is only the success of exchange transactions that allows associations (outside the small corporate groups) to endure. Decisions about the upkeep of particular associations are of necessity determined by criteria of allocation. According to Orokaiva ideas, associations go through alternating periods of positive reciprocity (friendship) and negative reciprocity (war). Whereas in Western thought permanence is considered normal and quarrels a deviation from the norm, the Orokaiva do not envisage either friendship or enmity as permanent states but rather as alternating temporary states.

The implication of this philosophy for social relations (and this includes Orokaiva-white relations) is that they never are what a Westerner would call "friendly" or "hostile." It would be more correct to say that at any given time they may be going through a positive (friendly) or negative (hostile) cycle. Movements from positive to negative cycles tend to be gradual, since in the Orokaiva view social relations tend to deteriorate constantly, little by little, until they become hostile. On the other hand, movements from negative to positive cycles tend to be highly dramatic and ritualized—usually through reconciliation feasts and gifts. In relations with Europeans, reconciliations are harder to effect since there is no commensality between the ethnic groups.

If it is natural for social relations to deteriorate constantly and gradually, it is still possible to decide that one will allow an association to deteriorate before one takes active steps to restore it. Such a choice is determined by many factors: intrinsic attraction

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

construct a higher-level system which accounts for all the explanations taken together.

Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

None of these reasons would have sufficed to kill the movement had there been, in the 1950s, a strong opposition to the administration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a care-free life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthropologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Part III

Friendship and Kinship: An Attempt to Relate Two Anthropological Concepts[1]

5

Erik Schwimmer

THE PROBLEM OF A DEFINITION OF FRIENDSHIP

121 A universally applicable definition of friendship is difficult to arrive at. Nonetheless, the sentiments attached to the concept of friendship have, to anyone with anthropological experience in non-Western societies, the appearance of being universal. But even if the sentiments are universal, it is impossible to designate categories of persons, recognized in all cultures, between whom the sentiments of friendship normally prevail. The term 'friend' is, in many languages, non-existent or indistinguishable from 'kinsman.'

One may argue, as Paine has done (this volume, pp. 117–37), that friendship is a relationship found only in societies of a certain type. Thus, friendship would be personal and private and have characteristics such as autonomy, unpredictability, and terminality. Paine argues that societies which have friendship in this sense tend to be technologically advanced and complex in their socio-political structures. While one can find no scholarly objections to this approach, it leaves unsolved the question which concerns me in this essay: can we find a definition of friendship such that the symbolic idioms in which the sentiments of friendship are expressed in all cultures can be comparatively analysed?

Clearly, we cannot do so directly as these symbolic idioms are part of a vast variety of classificatory systems found in different societies and the place of friendship in these systems depends on their overall arrangement. We can, however, start from a universal type of association which is initiated by mutual attraction and which is maintained by the exchange of intrinsic benefits (benefits arising solely or largely out of the association itself). We can then inquire whether there is a universal relation between this phenom-

101 122 [114]

1 This essay is based on research carried out in the Northern District of Papua in 1966–7 and 1970 (with the financial help of the Canada Council and of the *Project for the Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific*, directed by Dr. H. G. Barnett). My wife, Ziska, helped in data collection, especially for the section on *jao* relationships. Dr. T. F. S. McFeat and Mr. A. Tanner read the manuscript and made useful suggestions.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

121 enon and kinship, which is another universal type of association. Blau's psycho-sociological analysis (1964) clarifies how the exchange of intrinsic benefits among men is generated and by what universal psychological laws it is conducted. We would be unwise to call it friendship, since it normally exists among kin as well as non-kin, and if we referred to all kin as friends, our terminology would become idiosyncratic. I propose to use the Greek term *philia* for this type of relationship, in homage to Aristotle who first formulated it in a way which can be utilized by social scientists.

Aristotle distinguishes between good, useful, and pleasant forms of *philia*; he regards as best those relationships which combine the three forms. Thus, one may say that between consanguines, there is some form of *philia* or else a state of enmity. In practice, many of these relationships are imperfect, being merely good (but not pleasant or useful) or merely useful (but not good or pleasant). Outside the kin system, the objects of *philia* are, to a far greater degree, the result of free choice. The selection of the few individuals – kin or non-kin – with whom a person can have the highest type of *philia* relation (combining all three forms), and the duration of such a relation once established, is never determined by positive rules. A frequent pattern in primitive societies – it being almost an institution – is the selection of a 'favorite' brother, sister, uncle, or other relation; usually only in such relationships of favouritism can the ideal norms of the society be realised.

Aristotle distinguishes further between *philia* born or not born of membership in associations, and between *philia* joining equals and non-equals.[2] Some (equal or non-equal) personal *philia* relationships are extremely intimate, as in the case of the partners identifying psychologically with one another. In all *philia*, there is a tendency to exchange benefits according to a principle of distributive justice.

Aristotle regards kinship and affinity as special forms of *philia*, combining the good, the pleasant, and the useful so that they represent, in their character as well as in their long duration, *philia* in the fullest sense of the word. Aristotle's discussion of the husband-wife relationship is a complex one: it has aspects of inequality (man being the superior) and of equality (a pooling of contributions); of association or corporateness (joint ownership of the children); and of reciprocity (helping each other out, their obligations being based on the principle of exchange).

Unlike modern Western philosophers, Aristotle does not propose a con-

2 Institutionalized friendship in the sense of Eisenstadt (1956b) would be equal and arising out of associations. Friendship in the sense of Paine (this volume) would be equal and not arising out of associations, but rather private and personal. Studies of unequal *philia* have been conducted recently by Dumont (1966) in India and by Nakane (1970) in Japan. For unequal forms of *philia* not arising out of associations, we must look at many of the recent studies of patron-client relationships and of Big Men in Melanesia. An excellent analysis of this type of relationship is offered by Aristotle in his discussion of *megalopsychia* in Book 4 of the *Ethics*.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

121 cept of friendship which *excludes* kin. The quality of *philia* can bind together kin and non-kin alike. He does not exclude purely political and economic forms of *philia*, though he regards them as being on a lower level; that is, useful but not necessarily pleasant or good. In this essay, I shall disregard them, restricting myself to relationships in which intrinsic benefits are exchanged.

In addition to kin relations, then, *philia* includes a residual category of affective relations between non-kin. In the first instance, I shall define friendship as this residual category. I recognize the feebleness of such a definition and can understand why Paine (this volume, pp. 117–37) rejected it. There can, in fact, be only one justification for setting up this residual category, and that is that our analysis is able to reveal in it a structural principle.

My main purpose in this essay is to demonstrate how we can arrive at such order or structure in one specific case: the Orokaiva of the Northern District of Papua. But the entire discussion requires the use of concepts which are by no means familiar from previous literature. Hence, I have provided a preliminary survey of some empirical illustrations of these concepts. First, if we make a conceptual distinction among *philia*, friendship, and kinship so that the *philia* set is always equal to the sum of the friendship and kinship sets, then four real possibilities exist: 1) there may be no friends at all (but I know of no cases of this supposedly primitive pattern in Oceania); 2) all persons designated as 'friends' are primarily classified as 'kin'; 3) all persons designated as 'kin' are primarily classified as 'friends'; and 4) there are two sets of persons known to every individual who classify some persons exclusively as friends and some as kin.

Secondly, a society may have a notion of *philia*, but it may classify the members of the *philia* universe by criteria other than the presence or absence of consanguinity. Theoretically, there could be an infinite number of ways of subdividing the *philia* universe, but let us limit ourselves to three: 1) consanguinity is the basic criterion; 2) consanguinity is no criterion; 3) consanguinity is only one criterion among many.

I shall clarify these preliminary points by illustrations from different parts of Oceania.

OCEANIC NOTIONS ABOUT KINSHIP AND FRIENDSHIP

171 Theoretically, we might expect to find in all societies three different systems of discourse about social associations: a kinship system, a friendship system, and the more comprehensive *philia* system. In practice, we may find a good deal of overlapping in specific societies, but even then, the distinction between the three systems may prove to be analytically profitable.

For instance, some societies do not have a distinctive membership group outside the kin group where *philia* relations are maintained. An example

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970). Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

562 through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. 614 Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant [582] emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

602 In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

121 In this essay, I shall present data on the friendship universe and show that 572 Orokaiva have institutionalized friendships of several types, some of which 602 are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

101 Between the districts where the data were collected, there are slight differ- 197 ences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata 601 district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

601 Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

121 concerned with the syncronic structural aspect. To set up a friendship with a stranger is to set up an irresolvable paradox, for the Other remains a stranger (autonomous, unpredictable, and always apt to withdraw; see Paine, this volume, pp. 117–37) while at the same time claiming and receiving the benefits bestowed by the *philia* universe. How does man manage this paradox?

Our analysis hints at the solution to this problem. Every culture sets up its own system of classification within the *philia* universe, and the rules prevailing within each category are buttressed by mythology, ritual, and moral philosophy. These rules are thoroughly learned and symbolized. I would suggest that the friendship relation is modelled after the most appropriate of the available *philia* categories. The obligations laid upon kinsmen may not be as fully exacted from these recruits, but the general pattern of the relationship follows the principles of one of the categories. To show that this happens in our own society, or in any other, would require a detailed analysis that cannot be undertaken here. But we may find that the friends of whom our spouses are especially jealous belong to the type modelled after the conjugal relationship (even though, like the Orokaiva *simbo*, the friends may be of the same sex).

It may happen, as in our own society, that friends are far more numerous than recognized consanguines. Yet it still seems that the models man uses in conceptualizing friendship relations derive from the basic categories of his *philia* system, and these basic categories tend to be built out of the symbols of kinship. How do friends differ from kinsmen? I suggest it is mainly in the fact that friends are raw recruits to the *philia* system; special efforts are needed to attract them and hold them, and special processes lead to friendships being broken and restored. For instance, we exact fewer obligations from our friends and accord them fewer rights than we grant to the "true" members of the same category of the *philia* system.

We need friends because in the complex lives we lead, the ascriptive members of the *philia* system often cannot provide the benefits for which we look from a particular *philia* category. Thus, fresh relations with strangers are undertaken to provide us with allies in areas where we need allies and where we would otherwise be alone. But for such gratification, we would not seek friends. We enjoy the openness of our social universe. However, open or closed, our universe is limited to a small range of basic relationship patterns present in our conceptualization of kin patterns.

If historical developments such as urbanization and industrialization have added to this basic repertoire, what could be the nature of such additions? Certainly the Aristotelian model of the "good friendship" (Paine, this volume, pp. 1–14) cannot be claimed as a modern invention. My Maori and Papuan informants were able to describe to me in detail their experiences with this kind of *philia*, often involving a father or uncle or elder brother.

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26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

STRENGTHENING THE STRUCTURAL METHOD

Objects of Mediation: Myth and Praxis

BY ERIK SCHWIMMER

The study of material culture formed an important part of anthropology until fairly recently. It used to be considered a proper part of an ethnographer's work to come back from the field with a good catalogue of cultivated plants and objects in common use, together with a full description of their mode of manufacture. Nowadays few ethnographers feel an obligation to carry on such systematic fact collecting, for they go to the field with a "problem." They will collect facts meticulously, but only if it helps to solve their "problem." As a result, records of material culture have fallen off.

Over the last few years, the emphasis on material culture has been on the increase in several schools of anthropology. Cultural ecologists have been meticulous in collecting such material culture data as are relevant to their input-output analyses. Ethnoscientists have been equally meticulous when compiling systems of classification of plants, animals, ritual activities, and processes of manufacture. The structuralist method, with its em-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis,-and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

corresponded to restricted exchange, the taro network corresponds to a complex system of generalized exchange. We find both these types of pattern in the Orokaiva marriage system; we find them again in the exchange of objects other than women. 824 571 431

To a large extent, these hierarchies are formed by free choice. Both sides are able to regulate the degree of intimacy by speeding up or slowing down the rate of taro gifts. While thus the taro network offers a good deal of opportunity for subtle *political* manipulation, one crucial criterion is missing from the taro network that is required in a political *system:* conflict is never expressed in terms of taro, except in one case, to which I shall refer below. The fact of not receiving a gift of cooked taro is never, by itself, a *casus belli,* but only a sign of coolness. It may signify no more than a development in a relationship from intimacy to mere amity. It is unlikely to cause anger, unless there are other sources of conflict at the same time.

Male taro gifts, occurring in the context of a feast, should according to the rules not be competitive in quantity. A visiting village expects to receive in return no more and no less than what it has given. If the other side gives more than it has received, this is regarded as an act of hostility. One cannot compare such an act to the potlatch behavior of the Indians or Polynesians, because it is a violation of the Orokaiva rules—a provocation that frequently ends in actual war. On the level of ideology, it is still valid to say that taro gifts can be used, as ritual statements, only to express pseudo-commensality, intimacy, and affection. A quite different rule says that any excessive return gift (whether of taro or something else) serves to express hostility. I shall return to this point elsewhere (Schwimmer, 1974).

CONCLUSION

The purpose of this essay will have been achieved if I have been able to show how objects, in such societies as the Orokaiva one, are "total phenomena," or, perhaps more accurately, multivalent phenomena. Certainly one understands little of the Orokaiva way of life if one does not perceive that a taro, for 121 824 431

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

instance, is not just a food, or an economic value, but also a kinsman, also a form of power, also a sacrament.

In a more theoretical vein, we may regard this essay as a corroboration of two remarkable essays by Marshall Sahlins (1968, 1970) in which he elucidated the philosophy of Marcel Mauss and the Maori concept of *hau*. With some modifications, required to fit Orokaiva rather than Maori thought, we can say that a gift object such as a taro has a certain potency which enables it to perform an otherwise impossible act, such as convert an enemy into a friend. During the first stage of the transaction, when the taro, identified with the *vegetable* form of Totoima, is offered up to the marauder (= enemy, guest), the host, likewise identified with the taro, parts with it irrevocably. It is then snatched by the guest, who eats it and thus enters into communion with the host, now identified with Totoima. The force that compels the making of a return gift becomes effective by the act of communion. As Sahlins rightly argued, the transaction becomes meaningful only if it is considered within the context of the state of war which, in the absence of this sacrament, would prevail between the partners.

A question of some difficulty is the relation between the Totoima myth and the taro, coconut and areca rituals. I have proceeded in this essay without distinguishing what is conventionally known as mythology from what is conventionally known as ritual. Thus a key element in the *mythological* analysis was the fact that there are ritual ways of giving away raw and cooked taro. In this respect I followed a distinction which was recently (1971:598) proposed by Lévi-Strauss, namely, between "explicit" and "implicit" mythology. He argues that many mythical representations exist only in the state of notes, sketches, or fragments scattered in glosses and exegeses which appear in the context of ritual. He describes such representations, in other words, the cognitive aspect of ritual, as "implicit mythology."

Lévi-Strauss would thus restrict rather narrowly the scope of the ritual level to what would appear to be systems of paralinguistic signs in a sacred (or at least the opposite of everyday) context. By imposing this restriction, Lévi-Strauss pointed at a weakness in much writing about ritual (including the present

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

essay) in that gestures, tone of voice, the choice and manipulation of ritual objects tend to be neglected in favor of what he calls "implicit mythology." Yet, after admitting this weakness, we may still retain the point with which we started: an analysis of the semiotics such as coconut, areca, taro presents the Melanesian world in its concreteness. Without fragmenting the ethnographic data into preconceived "aspects" of society, it brings out from the start cognitive categories implicit in the Orokaiva data. Unlike the ethnoscience approach, the structuralist approach followed here aims at the building of models comparable to other models of the same family. In the present essay, only one society was analyzed, but anyone who knows Oceanic myth can see many parallels of the man-killing coconut girl, corresponding to ritual in which woman appears as dangerous and a source of pollution.[4] My data on the raw/cooked opposition are a variation of the main theme explored by Lévi-Strauss in *Mythologiques* (1964, 1967, 1968, 1971).

Finally, even if we restrict narrowly the scope of the ritual level, we must regard the magical act of offering up a gift as distinct from the myth which explains this act. I do not know whether we should here refer to levels of action and thought, of *vécu* and *conçu*, or of network and code structure. Whatever term we use, we would agree with Malinowski that, from one viewpoint at least, the myth may be regarded as a charter of the act. If the anthropologist asks the informants, "Why the act?," they will quote the myth; or when they tell the myth, they will conclude with a remark that it explains certain customary actions of the present time. Yet, as the present essay has clearly shown, the divergence between code and network structures is too basic to be ignored. As it was merely my purpose to introduce the subject of the ethnography of objects, I have dealt with both aspects and showed their complementarity; but this was at the cost of leaving both code and network analysis in a provisional state.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

NOTES

1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

3. "A principle of gradation by which elements are related to the whole of which they form part."

4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

THE SELF AND THE PRODUCT:

Concepts of Work in Comparative Perspective

ERIK SCHWIMMER

Introduction[1]

121 The cross-cultural comparison of concepts is part of the anthropologist's trade. Whatever the concept, we find ourselves asking whether anything resembling it exists among the people we study. The concept presents itself very often in English: law, government, religion, friendship, reciprocity. A school of thought often arises which holds that the concept is not universal but confined to a limited set of cultures, inevitably including our own. Such a suggestion is usually opposed by others who propose definitions of the concepts so as to make them look universal. The concept of *work* is clearly of that type.

There are good reasons for thinking that this concept is a product of 18th century Europe and the industrial revolution. Work as a concept is based on the assumption that, from a certain viewpoint, all economically useful activities are fully comparable by a yardstick transcending their diversity, in other words, that labour has become a commodity and that the technical and administrative direction of that labour has become part of the same kind of commodity. This is a perspective with which we have become familiar through Mandeville, political economy and Marxism (Baudrillard 1973; Dumont 1977). On the other hand, it has been shown that the Ancient Greeks had no corresponding concept (Vernant 1965) and it is not difficult to show that the Melanesians did not have it either, until they came into contact with western capitalism. One of my Orokaiva informants was categorical on this point: "The people of olden times," he said, "did not take up work (*pure*) for it was only Jesus Christ who gave them work (*pure*) to take up."[2]

[461] [177]

On the other hand, some very prominent authors have presented 'work' as a universal concept. One of them was Karl Marx to whom the concept 'work' was just as much a universal as man's supposedly perpetual 'transformation of nature to human ends'. In his theory all modes of production have their 'labour force'; what he opposes is

[p. 287]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 that capitalism has turned this labour force into a 'commodity'. In that state of communism, work will become "le premier besoin vital" (Manuscrit de 44). As for Freud, when he was asked (according to an anecdote) what should be the main preoccupations of the normal healthy adult, he answered: "Lieben und Arbeiten". In this respect he appears to have taken the same view as Hesiod, in whose world view "la fécondité et le travail apparaissent comme deux fonctions opposées et complémentaires" (Vernant 1965: 188).

Faced with such complications, two possibilities are open to anthropologists. The solution most frequently adopted is to avoid the difficulty and to rely, instead, on concepts that are easier to define and operate. Thus economic anthropologists working in Melanesia have given up measuring labour force participation and concentrate instead on the concept of 'time allocation' as a measure of socio-economic relationships (Lawrence 1964), cost and value (Salisbury 1962; Belshaw 1949, Appendix IX) or price (Godelier 1973).[3] Another possible solution, which is beginning to find adherents in anthropology, is to subject the concept to what one might call comparative semiotic analysis.

This solution was, in fact, suggested by Sir Raymond Firth at the present conference when he said: "it is pertinent for anthropologists to enquire more systematically into indigenous definitions of work . . .". What would such an enquiry involve? As not all cultures have a concept of work, there are some cultures which, strictly speaking, could not be called upon to define it.

There are some simple, practical ways of coping with this problem. Michel Panoff, for instance, in a paper presenting concepts of work among the Maenge of New Britain (1977), suggested glossing the term 'work' by "des activités visant à la production de l'utile" (p. 7). Undoubtedly this provided an operational definition. On the other hand, as Panoff himself acknowledges, terms like 'production' and 'useful' raise problems of precisely the same order as a term like 'work'. Cultures which do not differentiate 'economics' as a category from political, social, religious etc, phenomena could not very well class together some of their activities (but not others) as 'production' and even less could they subdivide the category so obtained into useful and useless. Panoff counters: "On ne commencerait jamais s'il fallait, chaque fois, réinventer totalement le vocabulaire".

Needless to say, Panoff had to pay the price of his haste. Thus, he finds a Maenge equivalent for 'activities' in gardening (*kuma*) and tells us they take, on the average, four hours per day. Next, he proceeds to admit that his informants do not conceptually

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

12.1 distinguish 'productive' from other activities (such as sleeping, eating, etc.). On the other hand, they do have a concept for 'toil' (*milali*). Evidently, they cannot say, in their language, whether they are 'working' but they are perfectly able to say whether they are 'toiling'. Moreover, in transactions with affines (p. 11) a man may sometimes claim compensation for *milali* he has done in an affine's garden, but he could never claim compensation for *kuma*. After all this, one wonders whether the latter word is fully covered by the gloss 'une dépense d'énergie' (p. 15).[4]

Panoff is correct in saying that it would be futile, every time a concept is explored, to reinvent the 'vocabulary'. I suppose he means by this the finding of an ingenious phrasing that gives an impression of universality. On the other hand, a semiotic investigation of a concept ought to tell us what ontological commitments are normally implied when members of the culture in question refer to the concept. Such implications may not become fully clear unless one knows the myths, rituals, ideology, behavioural norms of the culture in which the concept is embedded.

In other words, there is a corpus of information that must be presented before we can have even an approximately clear idea about what a Maenge means when he uses the concept *kuma*. No doubt such understanding will always be approximate and a 'full' investigation would be of infinite length. As in any ethnographic investigation, it would be professional practice to continue enlarging the corpus as long as this continues to add appreciably to our understanding of the concept and to end the investigation when a certain degree of clarity has been obtained and returns begin to diminish.

With regard to the concept of 'work', the first such investigation was not, to my knowledge, made by an anthropologist, but by a classical scholar, Jean-Pierre Vernant, in a series of papers brought together under the title *Le travail et la pensée technique* (Vernant 1965; 183–247). It will be useful briefly to review these papers both from a comparative and a methodological point of view.

Concepts of Work in Ancient Greece

Vernant's central interest lies not so much in agricultural work but in concepts of craftsmanship (ΤΕΧΝΗ) and of what one might roughly call practical intelligence (ΜΗΤΙΣ). To the latter topic he has recently devoted a book-length study (Detienne and Vernant 1974), with the special purpose of giving its due to a form of intelligence that our own culture has tended to grievously undervalue in favour of theoretical and literary intelligence. This neglect

27: Schwimmer E-5 (1966-1970)/1979 OJ23 Orokaiva OJ23

[12] appears to Vernant (a Marxist) like an aspect of class warfare in western society, though its ideological armoury was forged, without doubt, in Ancient Greece, more particularly by Plato.

Even though Vernant's central interest in the 1965 compilation lies in the concept TEXNH, he includes agricultural labour in – as one might say – his semiotic domain. It is for this reason that comparison of his analysis with Melanesian data (the focus of my present study) becomes highly relevant. Vernant nowhere explicitly defines his semiotic domain but from internal evidence I suggest it comes down to Prometheus' gift to man. Marxist though Vernant may be, he does not fall into the trap of defining his enquiry in other than Hellenic terms. Use-value, exchange-value and alienation are used as tools of analysis, not as boundaries of a semiotic domain. Though Prometheus, in Attica at least, was specifically the god of fire, pottery and metallurgy, and was specifically linked with the social category of artisans, the semiotic domain defined by Prometheus must include all the implications, as perceived by Ancient Greeks, of Prometheus' conflict with Zeus (1965: 186).

From this viewpoint, the Prometheus figure is as relevant to agriculturists as to artisans, a fact that is reflected in Hesiod's treatment of Prometheus in his *Theogony* as well as in *Works and Days*.[6] Hesiod, in fact, presented the deity mainly, in the latter work, as the god of the peasants and thus linked with Pandora, celebrated as goddess of fertility.

It is largely in Hesiod's terms that Vernant presents to us what we may call the Greek peasant's concept of work. While we may regret the paucity of informants, Hesiod's credentials are satisfactory: both he and his contentious brother are genuine peasants whose father had come to Boeotia destitute. The myths on which Hesiod's conceptual system rests are specifically those of his social class in a society where "every social class has myths of its own" (Jaeger 1946: 61).

In this, context, then, we are offered a definition of EPΓON and its related verb EPΓAZEΣΘAI. The verb

> paraît spécialiser son emploi dans deux secteurs de la vie économique: l'activité agricole, les travaux des champs, TA EPΓA et, à l'autre pôle, l'activité financière . . .

It has some more general meanings besides, but cannot be substituted as in English for the notion of action (ΠPATTEIN) or the notion of manufacture (ΠOIEIN) (ibid. 198). These are matters of semantic detail: if we wish to grasp more deeply the meaning of a term such

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

as ΕΡΓΟΝ, it can emerge only from Hesiod's account of the myth of the conflict between Zeus and Prometheus which explains both the trouble and toil inseparable from human life and the origin of culinary fire, source of man's nurture and survival. The concept of toil (ΠΟΝΟΣ) is therefore traced directly to Prometheus.

The conflict between deities, as told in Hesiod's myth, ends in a compact whereby the gods promise riches through labour and toil and whereby those who labour become a thousand times dearer to the immortals. Work (sweat of the brow) becomes a way to virtue (ΑΡΕΤΗ), a term which expresses not only a moral quality but also (in Greek) welfare, success, repute.

Several other key concepts are likewise defined in this system, in direct relation to the concept of work. For instance, strife (ΕΡΙΣ) is defined in terms of the strife between Prometheus and Zeus, and therefore as ambivalent – producing both good and evil. Strife or struggle, in its positive aspect, is labour in the fields whereas, in its negative aspect ΕΡΙΣ acts by violence, lies and injustice. It is thus that the Prometheus myth becomes linked to Hesiod's key concepts of ΔΙΚΗ, translated by Vernant as 'justice' and ΥΒΡΙΣ (*démesure*). The argument appears to be that in view of the primacy of strife, man faces the alternatives of settling by submitting to arbitration and accepting compensation or judgement; or of proudly rejecting such a settlement and thus rejecting the intervention of the gods, relying on his own strength instead (Vernant 1965: 39–40).[6]

It is by tracing connections of this kind that we begin to understand what 'agricultural activity' would connote in the mind of a Greek peasant. 'Work' in such a culture implies a relationship with woman, with fertility, with disease (ΠΑΝΔΩΡΑ), an experience of toil, trouble, misfortune (ΠΟΝΟΣ), with culinary fire, with contentions and litigations, and finally also, with a belief in moral values and their material efficacy. Up to this point we may expect to find rather similar concepts in Melanesia, even though their cognitive organization is somewhat different.

Vernant shows that the cultivator's concept of work, briefly sketched above, was in opposition to the artisan's concept of making or creating (vb. ΠΟΙΕΙΝ noun ΠΟΙΗΣΙΣ). While the peasant, as a strong man and toiler, could always take arms and turn his ΑΡΕΤΗ towards the defence of his own country, the artisan was by his mode of life far removed from toil or danger. Agriculture, to the Greeks, was no craft. Trades have secrets but the earth has no secrets. All it demands is 'husbandry' (ΕΠΙΜΕΛΕΙΑ).

Vernant argues that this difference between tradesman and

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

[12] peasant is due to the fact that "l'activité de l'artisan appartient à un domaine ou s'exerce en Grèce une pensée déjà positive" while agriculture remains integrated within a system of religious representations. Farming is not considered as transformation of nature to human ends, but as participation in a supra-human order which is natural and divine at the same time (ibid. 204–205).

It is interesting that Vernant is nonetheless not presenting trades as fully secularized. The model he presents is highly relevant even in a study focussed on swidden cultivators where little specialization of work is found, because many of the characteristics here attributed exclusively to artisanship will be found structurally similar to concepts developed by these cultivators in a purely agricultural context. The model, very briefly summarized here, operates on two levels.

The first level is that of the artisan's customer who pays for the work and who, by commissioning it, causes it to be done. Thus, the practice of artisanship begins when the principal actor (who is of course the customer, not the craftsman) perceives a need (ΧΡΕΙΑ) for the object. The next step is for the principal actor (again, not the craftsman) to decide upon the plan or design or templet of the object (ΕΙΔΟΣ), even though here the customer and prospective user has to respect the traditions and the limitations of the craft in formulating his commission. The customer's right to decision is justified ideologically by the fact that he alone will have the use (ΧΡΗΣΙΣ) of the object and will therefore know what requirements it has to satisfy; he will be the best judge of it.

Vernant demonstrates that throughout this transaction, it is the user who acts independently and freely on his own behalf (ΠΡΑΞΙΣ) and it is the craftsman who obeys. The technical function (ΠΟΙΗΣΙΣ) is thus in a subordinate position. This does not mean, however, that craft, in Greek ideology, was equated to a purely mechanical operation, as it is in the contemporary West. The category 'craftsman' (ΔΗΜΙΟΥΡΓΟΣ) comprises, apart from wood- and metal-workers, also diviners, heralds, healers, poets. Divine craftsmen, in Greek mythology, helped to create the world. They require not only specialized knowledge, apprenticeship, trade secrets, but also a particular power (ΔΥΝΑΜΙΣ) inherent in individuals as natural qualities (ibid. 212). By means of this special power, craftsmen may give material form to their 'model' (ΕΙΔΟΣ) of good health or of a house, but in the end the artifact is handed over totally to the person who commissioned it, so that the maker retains no connection with it: 'un ouvrage

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 extérieur à l'artisan et étranger à l'activité qui l'a produite' (ibid.: 223).

Vernant reaches two conclusions: the Greek craftsman was producing use-values rather than exchange values;[7] he was 'alienated' from his labour in the sense of losing all control over it when finished. In this last respect he was evidently unlike the Greek peasant as well as unlike the "active man" who commissioned and used what the craftsman produced.

From the viewpoint of Marxist theory, the position of the Greek craftsman is certainly somewhat special. In a mode of production where labour is a generalized commodity and where the division of labour serves merely to improve efficiency in the production of exchange values, one may well predict 'alienation' of the labour force. But how can alienation occur when the creative power of each individual craftsman is freely acknowledged and when the full unfolding of this creativity is hampered by no managerial constraints? The fact that the product is intended to be used by some alter would not in itself cause alienation, or else no craftsman, in the wide sense intended by Vernant could even be free of it. Are all physicians alienated unless they heal themselves? Nor can we simply put the phenomenon down to relations between social classes because there would be no class difference between, for instance, a flute player and a maker of flutes.

It would be easier to believe that 'alienation' refers merely to a particular relation of production rather than to a relation between categories of persons, because, after all, a flute player is not only a user of flutes but also a professional in a musical craft. User and creator roles are normally combined in the same person.

Is there something, then, in the Greek concept of craftsmanship that is distinctive to Greece and causes alienation? This is a question raised but not answered in Vernant's essay of 1965. It is raised again and more nearly answered in the Detienne-Vernant study of 1974. Whatever the Greek data eventually yield about this question, it is plain that technical intelligence is still grossly undervalued today while abstract intelligence is overvalued. It is also plain that the undervaluing of technical intelligence became, somewhere along the road, part of the ideology of the western ruling classes.

However, this be, alienation can clearly not be identified with a particular mode of production or a particular criterion of value. Not only is alienation apt to arise in societies where exchange values are unknown but its opposite, identification, is by no means absent even in a capitalist mode of production.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Works of Art

[121] To test this possibility, let us consider a major subculture of capitalism, namely that of literature, music and the arts. Here, work is manifestly being converted into exchange rather than use values. Works of art today, even if 'made for' or 'dedicated to' particular persons, are not really made primarily for their use or personal edification, but rather a kind of communication between the maker and the world or universe. Unlike the craftsmen of Ancient Greece, they do not (except reluctantly) produce work after a design imposed by their paymasters; they do not subscribe to any 'alienating' reduction of their work to 'average labour'. Moreover, on the juridical level, they have continuing rights in the product of their labour even if they 'sell' it – rights that are codified and enforceable in law. They live by the market value – the exchange value – of this labour. Clearly we have here a system that combines exchange value with identification.

This configuration: identification + exchange value is not, of course, unproblematical. What is a fair price for a poem or painting? In practice, this depends entirely on reputation. In other words, it is normal to spend several years in a garret until one has acquired sufficient reputation to be able to claim a rate of remuneration not less than, say, the basic wage for the 'socially necessary labour time' that goes into one's poems or paintings.

There is a vast perceived difference between the various value estimations: the exchange value (very low), the use value (very high if the work is 'good') and the value based on socially necessary labour time, i.e. what the poet or painter would receive if he became a 'government artist' in a Marxist-controlled economy.

If the artist wishes to avoid starving in a garret, he can always take a 'job', i.e. sell his labour not as an artist but as a teacher or clerk or carpenter or whatever. This labour will in his estimation have much less use value than his art, but it has far greater exchange value. He will tend to feel alienated from his 'job' whatever it is [461] but identified with the art which is his 'real' work. Sedentarized Indian hunters in Canada and urbanized Orokaiva taro-cultivators see a rather similar relationship between their 'jobs' and their 'real work'[8] (cf. also Cohen, this volume).

Towards a Melanesian Definition of 'Work'

The present enquiry concentrates on the analysis of concepts of work found in a specific society, the Orokaiva of the Northern Province of Papua New Guinea. These concepts, described as an indigenous semiotic system, are presented with reference to two

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

(121) oppositions assumed to be universal or at least to be suitable for cross-cultural study.[9]

Vernant's study already implied such a double perspective: he developed the folk model upon a mythological frame while including ethical, ritual and organizational specifications. Next, he interpreted this model in terms of

a) the extent to which the yield of labour was a market commodity (an exchange value, EV) as opposed to serving specifically to satisfy the needs of a particular user (a use value, UV) (cf. Vernant 1965: 222);

b) the extent to which the maker was 'alienated' from the work he produced.

Vernant did not fail to note (ibid., footnote) that alienation, in the Marxist sense, is not supposed to come into being except in a mode of production where commodity production is the dominant category. He tried to overcome this difficulty by presenting the social formation of Ancient Greece as transitional between what one may call elliptically a UV and an EV formation. If, however, we consider a wider sample of societies than Vernant, we soon recognize that alienation existed in this world long before there were any Greek tradesmen, for it is present in the simplest social formations.

Likewise, the implied opposite of 'alienation', viz. identification between man and his work, is by no means confined to formations where the use value category predominates, as our example of the contemporary art world has demonstrated. The present paper proposes that it is useful to study work concepts not just with the aid of the one opposition UV/EV as Vernant has done, but with the aid of a second, independent opposition between identification and alienation (I/A).

This theoretical innovation requires, however, that we first redefine, for our purpose, the rather vague term 'identification'. Our starting point, in defining occupational identifications, is Lévi-Strauss' discussion of caste in *La pensée sauvage* (1962) after the analogy of totemism. Here the occupational identity of castes and sub-castes is signified by a set of rules and prohibitions setting up ideological boundaries between them while implying their interdependence. It comprises many levels of conceptualisation: social, culinary, moral, philosophical as well as occupational.

Two papers develop further our understanding of identity as arising out of the *karma* of occupational castes in India. Searle-Chatterjee's (this volume) analysis of polluted castes shows that occupational identity implies a pattern of collective ritual and

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

[121] psychological characteristics. Not only the work but also the worker are classified as polluted.[10] Parry's (1979) paper about polluted Brahman caste groups[11] presents their occupation as involving identification ("consubstantiality") with the deceased at funerals. The payment they receive for this act of autopollution is represented as gifts they undertake to transmit to the dead. Parry raises the question that these gifts to the Mahabrahmans are not followed by "counter-prestations" in the sense of Mauss (1924). Might not therefore their pollution result from their thus retaining riches they should have passed on or recompensed? This is an important suggestion which it will be convenient to develop a little further.

Let us first, however, return to Vernant's point that man's occupational identity is closely linked with his fertility and sexuality. It is therefore as normal to identify with the work one does as with the sexual activity one emits. In this respect, we would disagree with Baudrillard (1973) who believes that to identify with one's work is to espouse a "puritan ethic". Alienation would then occur if the self is somehow denied further contact with work done, whether this be in the occupational sphere or whether it concerns children, sexual partners etc. Alienation occurs when the yield of such "production" of the self is taken away by others who retain control over it and who return no equivalent gift.

The occupational task of the two caste groups referred to above is to take away productions of other people's selves. The musician sub-castes make and use exclusively passion-arousing music, thus taking away the equanimity of a man's soul; the Mahabrahmans take away with them the deceased they embody. Both groups are essentially abductors who are polluted because it is their occupational role to alienate.

Now, the question is if and how this concept of alienation, derived from Mauss by Parry, relates to Marx's own concept. Mauss (if we may rely somewhat on Sahlins' (1974) interpretation of his argument) represented exchange as involving three partners; a first donor (A), a first recipient (B) and a second recipient (C) who makes a return gift to B. In Mauss' and Sahlins' discussion, there is no suggestion that A is out to make a profit but only that he claims from B some part or all (it is not clear which) of the yield of his gift. If B makes no such return the original gift is 'alienated' from A. In a formal sense, then, the polluted caste groups are *ex officio* in the position of B.

But let us now consider[12] the position, if A is a worker, B an employer/entrepreneur and C a customer. If C pays a remarkably high price, then by the principle just put forward, A would feel

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 entitled to part or all of this yield, but if B will pay nothing except the minimal wage needed to keep A alive, A will feel alienated. He is not kept informed of the true yield of his labour and is allowed no rights over it. Marx's concept of surplus value and Mauss' concept of yield (*hau*) appear therefore to be homomorphous, though bearing on different modes of production. It is for this reason that we believe that identification and alienation in the meanings used here are truly opposites.

What then is the relation between the two sets of oppositions we have developed here? It appears, in the first instance, to be a difference between types of economy and types of conceptualization. When we contrast formations where UV or EV are dominant, we are contrasting types of economy. When we contrast occupational identification/alienation, we contrast types of conceptualization. In the second instance, we may apply the same distinctions within a social formation having more than one mode of production. The Orokaiva social formation falls quite obviously into that category today. We may thus, within that society, distinguish four systems of work concepts, classifiable by the following properties:[13]

1. identification where UV dominant: congruence
2. alienation where EV dominant: congruence
3. alienation where UV dominant: incongruence
4. identification where EV dominant: incongruence.

Possibilities 1 (the 'traditional' system) and 2 (the 'cash income' sector) are congruent in the sense that the concepts of work they present fit ideologies well adapted to reproduce the respective modes of production. Possibilities 3 and 4 are incongruent in the sense that the concepts of work they present do not fit the ideologies serving to reproduce the respective modes of production, but appear to be part of variant or deviant ideologies. The latter two possibilities are often neglected in analysis, but need to be explored if we are to exhaust the logical possibilities or our semiotic domain. It is by envisaging these two possibilities that Orokaiva may be led to conceive of radical changes in patterns of social relations.

How can we test whether the four possibilities we have generated by purely logical processes have a real existence in the case of the Orokaiva social formation? If each possibility represents a system in the sense of Vernant's analysis, then we ought to be able to find in each one a mythological framework, an ethic, a body of ritual and organization. As we shall see, such a demonstration will meet with little difficulty in respect of possibility 1 (the traditional system, with its deities and myths), possibility 2 (where a dominant role has been allotted to Jesus Christ, as we saw above) or possibility 4

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 (supported from the outset by the vast Melanesian cargo cult literature). On the other hand, alienation where UV are dominant, is a possibility for which documentation is rare indeed. All we appear to have are sporadic cases of cruel exploitation by Melanesian managers.[14]

Yet, if we take a wider view, such exploitation is no isolated phenomenon. Even in societies lacking slavery, we may find instances of it among the defeated in warfare, and in groups of notable political weakness, ruthlessly exploitable by stronger neighbours. For irrevocably alienated individuals only one hope remains of restoring the balance, namely posthumous salvation which often involves vengeance by the ghost after death. While belief in vengeful ghosts is extremely widespread, there are few ideologies where ghostly vengeance constitutes the chief principle of interpretation of the laws of the universe. One such is the ideology of the Kutubu as presented in much detail by F.E. Williams (1976) where the chief myths, deities and religious practices concern disease caused by such vengeance. These facts do not suffice to set up possibility no. 3 as a system among Orokaiva, but they appear to justify some investigation in the framework of the present investigation of work concepts.[15]

It will be possible to define, for each of the four possibilities, distinctive work concepts, forms of management, fields of specialization in skills and crafts, forms of toil, notions of virtue, a principle of strife. Furthermore, for each possibility there is a separate corpus of knowledge, different operating models, techniques, supra-human powers.

The fact that we end up with four such categories (instead of, say three or five) has no special significance. The categories have been logically generated and provide a possible principle of data sorting. But data sorting has no virtue as such. Our categories have the advantage of showing how a culture reacts to the basic contradictions that exist within it. It forms, not only a plurality of ideologies, but of action systems as well each informed by its own ideology.

While there is no need for semiotic classifications to be binary, they do have to be logical rather than experiential. There is a connection between the contradictions that objectively exist and the concepts that are generated. The main point is that there is not only a traditional and a cash system (and on this everyone will at once agree), but there must also be two intermediary logical forms which come down to a cooperative and an exploitative system. These two systems are the traumas generated by the contradictions

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gaiha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[23] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

tended to play down such a possibility. While the concept of exploitation is perhaps more directly relevant to Marxist theory than alienation, it has certain drawbacks that are now widely recognized. Where use-values are predominant it is common practice to set up not so much a division of labour (Vernant has rightly argued one cannot call it that) but rather an allocation of tasks to persons or social categories who are thought to have special competence for them. Thus, as the most common example, certain tasks are allocated on the basis of criteria like age and sex. Now, this is not in itself exploitation though obviously it may well lead to exploitation. We therefore need a criterion, other than that of the task allocation itself, to determine whether exploitation in fact occurs.

I shall press this point by citing one counter-instance. Among the Orokaiva only women are considered competent to harvest. Men never do it and claim that, if they did, the taro supply would be exhausted too soon. As an exception, they do harvest taro for feasts, and this exception only goes to confirm that they would be far too prodigal to act as daily harvesters. Is this just a story to exploit women? When crops are being marketed, the rule among Orokaiva is that the men carry the coffee and are paid for the coffee, but taro and other subsistence vegetables, when taken to market, are taken by women who also retain the money. Their right to the produce is maintained not only for the daily food supply but also when there is money to be earned. Their right to the product of their labour does not seem to be questioned. Thus, by the criteria we have been using, Orokaiva women are not an alienated labour force and it will be seen that *alienation* is more convenient in an operational sense than the concept of exploitation, which may be too broad.

While studies of alienation in Melanesia are rare, it is possible to give some indication of the patterns. M. Panoff, in his study of Maenge suicides (1970), did not question the generally accepted model of Melanesian society as governed by certain strong exchange and 'equivalence' principles. He points out, however, that there may well be a minority of marginal individuals who are somehow too weakly established to be within the range of those principles: they may at times press their rightful claims, but without success. Panoff shows that the male suicides among the Maenge occur as a general rule against this background of ruthless and unlimited exploitation. In fact it is only suicide that sets a limit to exploitation in such cases. The proportion of people Panoff places in that category appears to be of the order

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

Our discussion of the culture hero Jesus Christ was necessarily incomplete. For he did not institute merely payment for labour – a real gift to man but, as we have seen, somewhat limited in scope, but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.
2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: *'Iji aramiko ambo ainge esora. Amina pure mo umbse. Amora pure re Keriso na Ikena umbesi ea avo.'*
3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.
4. M. Panoff reports that *kums*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 tasks but also travel, rest, meals and miscellaneous "other tasks" – the most mentionable of which are cooking and washing. The phrase "dépense d'énergie" must thus be taken very broadly.

5. The present author's knowledge of Greek antiquity is at undergraduate level. From an anthropological viewpoint, an interesting general discussion of Hesiod will be found in Jaeger (1946). But see also Vernant (1965: 19–47) and Detienne and Vernant (1974: 59–124).
6. The translation of ΔΙΚΗ as 'justice' obscures an interesting difference made in Greek between two kinds of justice. *Themis* (ΘΕΜΙΣ) justice as dispensed by the early kings and nobles whereas ΔΙΚΗ appears to be a system of dispute settlement by compensation payments to the injured party. The fundamental meaning of ΔΙΚΗ is 'due share' (Jaeger 1946: 103). ΥΒΡΙΣ would then be to refuse compensation and seek justice by force.
7. Vernant's explanation (p. 222) of this classification is as follows: "Dans la perspective de la valeur d'usage, le produit n'est pas vu en fonction du travail humain qui l'a créé, comme travail cristallisé; c'est au contraire le travail qui est vu en fonction du produit, comme propre à satisfaire tel besoin de l'usager . . . Marx écrit, de façon frappante, qu'en qualité de valeur d'échange, la marchandise n'est plus envisagée au point de vue du service qu'elle rend mais du service qui lui a été rendu par cela qu'elle a été produite." (*Critique de l'Economie politique*, p. 32.)
121 8. It has been objected that a work of art differs from a taro in that the former is a statement about patterns in the universe while the latter is not. My own view of taros, however, is that in the sense of Hjelmslev, they ought to be regarded as sign as well as substance; as signs, which they are whenever handled ritually, they do contain statements about the universe. On the semiotic issues involved see Hjelmslev (1953), Schwimmer (1977a, 1977b).
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114 9. For relevant ethnographic data on Orokaiva, see Williams (1928, 1930); Waddell and Krinks (1968); Schwimmer (1967, 1969, 1973, 1974a, 1979a). For specifically semiotic investigations on Orokaiva, see Schwimmer (1974b, 1977a, 1979a, 1979b.)
121 10. Searle-Chatterjee demonstrates that group identity among the polluted caste groups remains firm and positive. It appears to be threatened only by the attempted suppression of the notion of caste by the central government. If this should ever succeed, caste identity would be threatened, because public belief in its toughness, hotbloodedness, honour etc. would be lost.
11. While I have learnt a good deal from Parry's fascinating analysis of the Maha-brahmans, I wish to dissociate myself from Parry's comments on Louis Dumont, as it would not be very difficult to reconcile Parry's findings with Dumont's theory.
12. I wish to acknowledge a debt to Mr. Edwin Ardener who suggested this argument to me during conversation at the York conference. He is not responsible, of course, for what I did with it. A rather similar point is made by Dumont (1977: 118, 182).

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingenoa, eti atimbenoa, i umbenoa, umo timbanoa; donda deire tapa emo aisi oa eto tunga osaga umbanoa.' Ainge ena. Ainge ivu ta ena: 'Adam, umo ainge hogoro umbanoa, andaga aisi oa*
993 *eto i gaipi oa, pure firembani oa; iji vevere tunga osago hamo memega re*
177 *tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikana avo embo Eave te*
539 *Adam te ainge ena: 'Ainge dombo dago tapa andata emo ainge do aisi aje eagova: pure te deire amo tapa hamo memega te tunga osaga te tapa pumone ainge ga eurova, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo eurova. Eto donda matu manuga ena avo indie bretere avo. Aravorate, ungo kisekiae eto God na taekena avo umbuto India. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irova.*" Robert, Sivepe, 1966.

694 20. The text: "*Embo handa piriti embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pumbuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da piriti embo na samani eo pumbuto re koto ea, amiko donda aravo porakau aravo pure puruna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xanthosoma* sp.) for classical taro (*colocasia* sp.)

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

ACKNOWLEDGEMENTS

This research was made possible through my appointment as an assistant to the Department of Anthropology at the University of Oregon. I was commissioned to write a report for a project directed by Professor H. G. Barnett, entitled 'A Comparative Study of Culture Change and Stability in Displaced Communities in the Pacific'. This commission enabled my wife and myself to visit the Northern District of Papua for one year. I also received help from the Canada Council and the Killam Foundation.

I should acknowledge here the contribution made to this research by my wife, Mrs. Ziska Schwimmer, who not only bore with it but made many valuable observations which have been incorporated in this work. Among others who were helpful, kind, encouraging and inspiring in the field I should mention: Dr. R. Crocombe, executive officer of the New Guinea Research Unit of the A.N.U.; Miss Nancy White, a missionary and collector of valuable Orokaiva texts; Mr. M. Lean, head teacher of the Sasembata mission school; Dr. A. Radford, director of the Saiho hospital; Mr. C. Searle, a planter of Awala; their wives; and many other individuals attached to the mission and the administration.

My Papuan interpreters, research assistants and chief informants were the following: Mr. Stephen Oriri of Inonda; Messrs. Harold Heru, John Douglas and Brian Orua of Hohorita; Messrs. Robert Nanisi and Leon Bhagi and Miss Patricia Jove, of Sivepe; the Rev. Albert McLaren of Sasembata mission station, and Mr. Walter Waki of Popondetta. I owe a very special debt to Mr. Cromwell Burau who stayed with me for three weeks and communicated to me some of his deep insight into Orokaiva culture: and to Samuel Jovareka, our Orokaiva father, of Sivepe.

I should like to thank also some of the scholars who, for better or for worse, have helped in the development of this work by their encouragement, criticism and information; in alphabetical order: Dr. Homer G. Barnett, Dr. Cyril S. Belshaw, Dr. Kenelm O. L. Burridge, Dr. A. Capell, Dr. Peter Carstens, Dr. Jan Pouwer and Mr. Adrian Tanner. Finally I would thank the Social Sciences Division, Scarborough College, University of Toronto, for excellent secretarial services.

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125 interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

121 The survey was conducted over three separate periods during
101 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of avail-
101 able rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activi-
101 ties.[2] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

101 In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

114 The gathering of field data was shared equally between the
128 authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

128 The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of
122 it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst
114 them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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1 In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

2 It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

Preface

125 In this study, carried out between February and April 1963, [101] seven groups of adult male Orokaiva were tested using a culture-fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

●122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

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10: Dakeyne K-S (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

continues, a pattern of farmsteads set in consolidated, individual holdings may well replace today's villages and hamlets with their fragmented, widely-scattered landholdings. 361 178

Acknowledgments

This paper is portion of a wider study of Yega land use and settlement. The author gratefully acknowledges assistance and advice from colleagues in Australia, from officers of the Administration in Papua and from members of the A.N.U. New Guinea Research Unit. Field work was financed by research grant from the University of Sydney. 128 122

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Foreword

121 This paper is concerned with an experiment initiated in 1964 in
423 the Northern District of Papua in which land previously held under customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from
124 official files. Where recorded information was not available, estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During
● 122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Mumu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

I am indebted to the New Guinea Research Unit of the Australian National University for generous financial assistance. I wish to thank the Chief Commissioner of Land Titles (Mr D.J. Kelliher) and members of the Commission in Popondetta and Port Moresby; officers of the Department of Agriculture, Stock and Fisheries in Popondetta, and of the Department of District Administration in Popondetta, who discussed various aspects of the project and assisted me in every possible way; Mr Cromwell Bureu, Mr Russell Clarke and Mr Napier Boraba who helped greatly by interpreting both Orokaiva language and culture; Mrs Yvonne McMahon who typed a manuscript which was at times barely legible; and the Ombi-Tara villagers whose warmth, hospitality and enthusiastic co-operation made our stay so enjoyable. Helpful comments on an earlier draft were made by Dr R.G. Crocombe, Mr E.K. Fisk, Mr G.R. Hogbin, Dr R.T. Shand, Mrs S. Faircloth and Mr W. Standish. I am particularly grateful to Dr R.G. Crocombe, Executive Officer of the New Guinea Research Unit, for his advice and encouragement at all stages of the project.

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[124]
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18: Dakeyne K-5 3 (1962-1964) 1969
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Yega

ACKNOWLEDGEMENTS

000 The Author wishes to acknowledge the assistance of the following persons and organizations:

The Departments of District Administration, Lands, Agriculture, Stock and Fisheries of Papua-New Guinea and their field officers in Northern Papua and Bougainville; missionaries of the Anglican Mission (Papua), the Roman Catholic and Seventh Day Adventists Mission (Bougainville); Dr D. G. Bettison and Dr R. G. Crocombe of the New Guinea Research Unit, Port Moresby, and Miss Dawn Ryan, now of the East-West Center Hawaii.

122 The University of Sydney, the ANU New Guinea Research Unit and Conzinc Riotinto of Australia Ltd., provided financial assistance to cover the costs of field work.

128 Friends and colleagues who read the draft and offered helpful criticisms are Dr H. I. Hogbin, Department of Anthropology and Dr D. N. Jeans, Department of Geography, Sydney University, Mr C. D. Rowley, Director, Institute of Aboriginal Studies, and Mr N. D. Oram, New Guinea Research Unit, Australian National University. Messrs K. O. Clifford and B. McGee gave valuable help with the illustrations.

000 I wish to acknowledge especially, my debt to Mr Oram whose research findings were used extensively in the chapter on Port Moresby. For the opinions expressed however, I accept responsibility.

128 Special thanks are accorded to Mrs Susan Levine for her help in the arduous task of typing and checking the manuscript.
[p.40-B]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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121 broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

101 Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepa, [122] with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepa a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. [114] Fortunately, we had extremely competent research assistance at [124] Hohorita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

123 The basic source of the material that follows are my own field notes. These are supplemented by government records, the 129 publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimbidi, Waddell. I also collected tape recordings containing 50 basic 126 documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans 115 who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. 127 Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Part III

Friendship and Kinship: An Attempt to Relate Two Anthropological Concepts[1]

5

Erik Schwimmer

THE PROBLEM OF A DEFINITION OF FRIENDSHIP

121 A universally applicable definition of friendship is difficult to arrive at. Nonetheless, the sentiments attached to the concept of friendship have, to anyone with anthropological experience in non-Western societies, the appearance of being universal. But even if the sentiments are universal, it is impossible to designate categories of persons, recognized in all cultures, between whom the sentiments of friendship normally prevail. The term 'friend' is, in many languages, non-existent or indistinguishable from 'kinsman.'

One may argue, as Paine has done (this volume, pp. 117–37), that friendship is a relationship found only in societies of a certain type. Thus, friendship would be personal and private and have characteristics such as autonomy, unpredictability, and terminality. Paine argues that societies which have friendship in this sense tend to be technologically advanced and complex in their socio-political structures. While one can find no scholarly objections to this approach, it leaves unsolved the question which concerns me in this essay: can we find a definition of friendship such that the symbolic idioms in which the sentiments of friendship are expressed in all cultures can be comparatively analysed?

Clearly, we cannot do so directly as these symbolic idioms are part of a vast variety of classificatory systems found in different societies and the place of friendship in these systems depends on their overall arrangement. We can, however, start from a universal type of association which is initiated by mutual attraction and which is maintained by the exchange of intrinsic benefits (benefits arising solely or largely out of the association itself). We can then inquire whether there is a universal relation between this phenom-

101 122 [114]

1 This essay is based on research carried out in the Northern District of Papua in 1966–7 and 1970 (with the financial help of the Canada Council and of the *Project for the Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific*, directed by Dr. H. G. Barnett). My wife, Ziska, helped in data collection, especially for the section on *jao* relationships. Dr. T. F. S. McFeat and Mr. A. Tanner read the manuscript and made useful suggestions.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.

2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: '*Iji aramiko ambo ainge esoru. Amina pure mo iumbae. Amora pure re Keriso na ikena umbasi ea avo.*'

3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.

4. M. Panoff reports that *kuma*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER III

THE IDEOLOGY OF INTERTRIBAL EXCHANGE

1. *Experiences with the Exchange System*

Many authors have been fascinated by Melanesian ideas of reciprocity and exchange. Malinowski was the first to show in detail that these ideas are a central theme in Melanesian cultures; his lead was followed by Bateson, Belshaw, Burridge, van der Leeden, Pouwer, Reay, Sahlins, Salisbury, Strathern, Wagner, Young and many others. The literature on Orokaiva exchange, however, is less comprehensive than for some other parts of Melanesia. Williams, the principal ethnographer, has written a great deal on reciprocity and marriage exchange among Papuan groups, but this was mostly in his later works (1934, 1936, etc.), which do not deal with the Orokaiva. Some phenomena, as he records in his later ethnographies, might in some instances just as well have been found among the Orokaiva, and here it will be my role to fill in the record. Very recently, Waddell and Krinks (1968) have collected detailed statistical data on Orokaiva exchange. Valuable as this material is, it is concerned with economic geography rather than social organisation and ideology.

All ethnographers who have worked among the Orokaiva seem to be well aware of the importance of the exchange system. Whenever I met one he soon came up with the key question: 'How did you get on with *hoija*?', *hoija* being an Orokaiva word meaning 'exchange between non-kin'. Fieldwork in any area probably has its tensions; among the Orokaiva the initial distrust of, perhaps the hostility towards, the fieldworker finds its expression in the rather aggressive offering of (sometimes unwanted) gifts and services, followed immediately by peremptory demands or ceaseless wheedling for return prestations. Every fieldworker thinks of some 'solution' to this problem: accepting everything (because according to Mauss the acceptance of gifts is obligatory), accepting just a little from everyone, accepting prestations from only a carefully defined and limited group, or maybe accepting nothing, though I cannot imagine this. What all these anthropologists are talking about, though from a purely practical rather than a theoretical viewpoint, is how they should behave as exchange partners, given their own peculiar status. It should be a comfort to them that Firth has recently (1967) challenged Mauss' proposition that the acceptance of gifts among primitives is obligatory. They will now probably have fewer uneaten potatoes and German taro lying on their verandahs!

In all the villages I visited events followed the same kind of sequence. I always received an effusive welcome and many gifts for which no return was asked. This

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 phase would last about two days. Villages where I made very brief visits never
123 passed beyond that stage, thus remaining in my memory as exceptionally endearing in their generosity. Before I understood the system, I harboured romantic notions of going to live in these villages. In the second phase there would be frantic *hoija*. Everyone brought gifts, asked for tobacco, salt, kerosene, and rides in the car. People appeared to be most hurt when I would not drive into Popondetta every day, and take the whole village with me. Whenever I was offered any gifts or service during this period there would be an immediate demand for some desired benefit.

436 After some weeks, this rather aggressive barrage diminished. I found myself
123 with a number of regular exchange partners who brought me what it was presumed I needed and who asked me for more or less standard return benefits.
431 Two sorts of partnership developed: one type of partner expected a return gift immediately upon bringing me his own; the second type made gifts for which he asked nothing – they were represented as gestures of pure affection. Yet in the future an occasion would arise when I would be asked for, or would spontaneously offer, something in return. But this second type of partnership was far more similar to the kind of gift exchange the village people had among their fellow villagers or close associates. As more and more people shifted from the first to the second type of partnership, I could see something like a genuine exchange network building up. People trusted me enough to allow me to be in their debt for a while. I was thus approaching the stage when I would be regarded as a desirable exhange partner, or, to put it in Orokaiva terms, as a man of some moral virtue. It seemed to me that it was on my behaviour as an exchange partner that my status would ultimately depend.

431 Most of the significant events in which the village was involved were also concerned with exchange. While marriages, deaths, feasts and initiations were all occasions for ritual and magic, the gifts always loomed largest in everyone's interests. It would usually take at least a year, but often far longer, to accumulate the gifts needed for such occasions. During this period members of the family, local clan branch or village (whichever was the donating group) would be constantly on the lookout for money or gift objects that could be stored up. People would go looking for jobs. They would keep unused some
[628] clothing they had been given by a relative. Whenever a visit outside the village
[574] was contemplated, an essential part of the preparations was the getting together of the gifts that would have to be taken. Or when a visitor arrived, there was stealthy activity in the background to prepare the gifts without which he would not be allowed to leave. The size of the gifts would always be carefully planned, in accordance with the importance of the visit, the extent to which it was thought politic to do homage, and the availability of supplies. But the making of the gift would always be done in so casual a manner that one might easily believe it was totally spontaneous.

This manner must be affectionate and humble. But the wise man, in making a gift, puts his partner in his debt as much as possible without suffering undue expense, while at the same time enhancing his own status. At a later time, he will use his status as creditor to the best advantage. His concern is to foster a social relationship while at the same time seeking the acquisition of some scarce resource. Social and economic ends are pursued simultaneously. Thus Melanesian

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
829 Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
● [123] Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total
437 work output of the worker for the period he is on the job. The Orokaiva,
177 however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
177 *l'individualité du donateur.*' It rests on a notion that both worker and

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would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

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The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself while, at Sivepe, logistical considerations prevented more than 30 to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

[124]
[123]

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Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a way as to cover expected seasonal variations in activity patterns (see Fig.5:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

[1] Twenty-six in the case of Inonda.

438 proportion formed by pitpit is due to the fact that it was only in season during the first twelve weeks of the survey (see Table 11:4). Yams, Xanthosoma and sago are similarly seasonal and in certain weeks are more prominent than shown here. Of the other cultivated products, areca nuts are important although they amount to only 93 lbs acquired and 39 lbs disposed over the survey. One lb consists of approximately 24 areca nuts, so that about 86 nuts were acquired and 36 nuts disposed of by the village as a whole each week. In other words, there is a regular traffic in areca. Inonda people are dependent on outsiders for the nut because the palm does not grow well on their land.

It is noteworthy that the total acquisitions and disposals of subsistence items are very close to balancing - the excess of the former amounts to only 76 lbs out of a total of 14,000 lbs. However, the reservation should be made that the balance is achieved by equating all items on the basis of weight, and this does not exactly reflect Orokaiva methods of calculation. It is, nevertheless, probable that the outflow of the most favoured foods - taro (800 lbs) and pigmeat (375 lbs) - helps to balance the inflow of services and storebought goods and that this is an expression of the Orokaiva ideal of reciprocity in relationships.

437 [431] (ii) Labour services. The exchange of labour services is to some extent a matter of individual inclination. Where an obligation exists, it has not necessarily been incurred through an equivalent service, nor is reciprocation in this way essential - it may, instead, be through a gift of garden produce and obligations and reciprocations may be separated by a time-lag of a year. For this reason and others discussed below, the pattern of services over a period varies from individual to individual and acquisitions and disposals are not often in balance. In Table 11:1 the excess of acquisitions over disposals of labour services in the subsistence sector reflects large amounts of labour given by people from other villages, mostly young men staying for a few days or weeks with kin in Inonda. They contributed 42 per cent of subsistence services, in such tasks as house-building, sago-making and gardening. If it is assumed that people who are temporarily absent from Inonda follow the same work patterns as people temporarily resident, this apparent excess would be considerably reduced.

439 431 [123] (iii) Storebought goods. Table 11:1 also shows the values of goods derived from trade stores that are circulated through the gift exchange system. Thirty-seven per cent of the total value of acquisitions shown was in gifts from research workers. One-third of this was in the form of a parcel of clothing from a research worker in Australia and the rest was contributed during the survey. The most significant contributions were of trade tobacco, mosquito nets (shown as 'personal goods'), clothing and a suitcase given to the leading man for his journey to Port Moresby.

125 (iii) Test administration

Testing was done individually during daylight hours at the testees' home villages. The time spent in testing varied considerably depending upon the quality of the response.

123 Establishment of adequate rapport is important in all psychological testing. A number of factors contributed to its establishment in the present case. The field staff and the New Guinea Research Unit were well known to the testees, personally in the majority of cases, and at least by reputation in the remainder. This led to a readiness to co-operate in the research programme. The physical material of the test is itself attractive and appealing. Testees do not become bored or stressed during testing as the item type changes fairly rapidly.

125 A card table approximately 3 feet square was used to provide a flat surface on which testing took place.

(iv) Scoring systems

There are currently a number of scoring systems available for use with this battery. The first of these was devised by Ord (1959). This utilized time bonuses and credit for partially correct responses. Other systems were developed by Kearney (1962). Test scores derived from the different scoring systems were correlated by the product-moment method in a 27 x 27 matrix. When one marking system is correlated with any other marking system for the same test, the correlation did not fall below r = 0.9 except in one case where r = 0.85.

One system of analysis used simple binaries (i.e., 1 mark if totally correct, 0 marks if incorrect) to avoid any contamination of the results by a marking effect. It might have been thought that delection of time bonuses and part marks would render results less sensitive to small changes in performance, but the above results have not borne this out. There were time limits but these did not make the task rely on speed but were imposed so as to have a standard discontinuation time when the testee was unable to complete the item.

The simple binary system makes no assumption about the relative weightings of various items or ideal time bonuses. In this analysis this system has been used.

Results

153 The means and standard deviations of the test score are presented in Table 3.

notably generous with gifts. It might otherwise be expected that he would have avoided the ceremonies or aligned himself with the bride's group, especially as the husbands of his daughters received shares of the bride-wealth. However, he contributed goods worth $2.55. 583

Of the five households in Inonda which did not contribute, the heads of two were brothers from the Jego'undi clan (not the Jegotumo lineage). Their mother was of the Joremba'embo lineage of the Andiriha and they therefore received a small share of the bride-wealth. The head of another of the five households was the bride's brother. The heads of the other two households were brothers and were considered by the villagers to be members of the organizer's lineage (Darafa'embo) because their father had been adopted into the Darafa'embo after being captured from a Managalasi tribe. In contrast with the organiser who had a dominant role in the contributing group, they received small shares of the bride-wealth at least partly because their mother was of the bride's lineage, and possibly because one of the brothers married the sister of the bride's brother's wife.

7. Households of the groom's matrikin. These were the households of the groom's mother's brother and his stepmother's brother, both from Urio village about seven miles from Inonda. No others of the groom's matrikin contributed.

Of the heads of the 20 households which contributed, only six were from the Andiriha clan and four of the six were of the Jegotumo lineage. If the bride had been a member of another clan, other Andiriha households probably would have contributed. Most of the 12 householders from Hohota II who contributed had no close genealogical relationship with the groom. They may have contributed because his father had lived there for many years before shifting to Inonda. However, the obligations could have been primarily to the organizer, a Hohota man.

V

The analysis of the distribution of the bride-wealth is not entirely satisfactory for two reasons. First, there were difficulties in observation. For example, some of the pork and other food was cooked and eaten while the distribution was taking place; some was handed to people to be given to others; and valuation of the pork cuts was impossible. All households which shared in other components of the bride-wealth were given pork, the choicest portions going to those which received the largest shares of other items. Some household utensils given in the bride-wealth were used 583 123

583 to cook and serve the food. The ultimate recipients of these were
123 not ascertained. Secondly, most recipients were from Mosou and Ajoro, villages in which there were many clans. Complete analysis was not possible because detailed genealogies were not collected and because both the father and mother of the bride had genealogical links with Mosou village. Nevertheless, sufficient information was collected to indicate some of the principles underlying the distribution.

583 Households which shared in the bride-wealth have been catego-
[123] rized according to the head's approximate relationship to the bride (see Table 4).[1]

Category 1 included the households of the bride's father and brother. These men controlled the distribution of the cash and retained just under 90 per cent, each taking $35. Although the father directly controlled the distribution of the more valuable traditional ornaments almost all the non-monetary components went to other households.

Two other local households of the Andiriha received shares of the bride-wealth (category 2). Their shares were small, possibly because they were of neither the bride's nor the groom's lineages and were therefore to some extent in a neutral position regarding the marriage (see also page 96).

Only one household of the Andiriha clan from a distant village (category 3) shared in the bride-wealth and the share was very small. This parallels the small contributions of the two distant households of the groom's lineage. The only Andiriha households known by the Inonda people to have taken no part in the marriage were from Hanakiro, a village about 20 miles away.

A large number of households with heads affinally and matrilineally related to the bride's father (category 4) received modest shares of the bride-wealth. The genealogical ties of three of these households were reinforced by assistance which the heads had given with the ceremonies performed when the bride attained puberty, at which time her father was absent from Inonda. Some households in the category had genealogical ties to the bride's mother as well.

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[1] It is possible that I was not aware of some cases where two or more recipients lived in the same household and if so, they have been listed in Table 4 as separate households. For example, an aged woman and her son may have received separate shares. Their relationships to the bride, as described to me, would not indicate whether they were in the same household and they would be recorded as separate households.

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepa, with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepa a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hohorita, after we stopped residing there. The head teacher, Mr. Harold Heru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimbidi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

829 returned ancestor, but have principles for distinguishing between
769 those who are and those who are not ancestors. A territorial distinction that was suggested to me was that the Northern Hemisphere is generally regarded as inhabited by spirits and ancestors. (It was an educated informant who suggested this.) Some Papuans who went to England for the Queen's coronation could not believe that the buildings, the elevators, etc., had been built by ordinary men. A parcel of clothing, taken from England by a visitor was thought of as a gift from the ancestors.

Israel, Egypt, the Red Sea and other places mentioned in the Bible are especially so regarded. One example of the sacredness ascribed to these places was evident in the reception given to a popular missionary in the Kokoda district who returned to his parish after a visit to the Holy Land. The festivities with which he was received were very much out of the ordinary, and I was told this was because the ancestors had gone to these places.

In accordance with the usual Melanesian pattern, Australia, being the country exercising political and commercial control, was excluded from the vague area to which the ancestors had supposedly gone. On the other hand, New Zealand was not necessarily regarded in the same way as Australia. A young New Zealand geographer who paid a brief visit to Mamuni (in the Sasembata district) and to myself at Sivepa had been showered with gifts and one man had pressed money upon him which he was asked to invest in New Zealand, in which case it was expected to multiply a thousandfold. The young man was prudent enough
123 to decline the offer. I do not quite know how my wife and I were
829 regarded in Sivepa, but there was evidence that the surrounding villages
769 likewise regarded us as returned ancestors; I was once drawn into a discussion with a branch of the Jegase clan group at Kiorota, four hours' walking from Sivepa, where it was known that we were living closely with the Jegase clan group. I was asked point-blank whether I belonged to the Jegase clan; later, the Sivepe people told me what the meaning of this question had been. It would seem that this identification with returned ancestors was due less to our geographical provenance than to the type of relationships we had developed with Orokaiva people; both the geographer and we were living in villages, eating with the people and sharing with them; my wife was gardening; our behaviour was not that of the taupa. To this point I shall return.

177 It must be due to reasoning of this sort that Americans were
829 placed definitely in the category of returned ancestors. I was told
769 they were very different from other taupa (or rather, they were not really taupa at all). The American forces, it will be remembered, fought the Japanese at the Kokoda Trail and drove them out of the Northern District in 1942-1943. Both they, and the Australian troops accompanying them, maintained friendly relations with the Orokaiva who helped them in various ways, supplied them with whatever food they had in return, received very generous gifts. The American soldiers ate with the Orokaiva, which Australian officials hardly ever do, and

yet been completed (which was true) and that these ought to have priority. The women then became impatient; after which they explained to me that the women had talked to them insolently and they had told them to build the house themselves (which was a male task; it would have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

About three months before our departure from Sivepe, a mission teacher told me that his wife intended to teach Sivepe women a coastal women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence. I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

At all these practises, the mission teacher sat and watched at the centre of the stage. His wife played the role of the teacher; later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

its efforts upon what were then the Jegase and Timuma clans, to the exclusion of Seho. When my wife and I came to Sivepe, Jegase at once claimed us, built our house for us and was ready to perpetuate the familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of Jegase did not actually make much difference. Seho grew just as much coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to Standard 6) at Sasembata School; so far only one has gone further. One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

individual names to become part of village history. The anthropologists who had been in the two villages, under the auspices of A.N.U., were all very well remembered by name. When we included in a questionnaire a request for the names of Europeans our informants knew well, we were given a list including all the anthropologists, by their first names, and nobody else. This was almost a standard reaction. I am not at all sure that this close acquaintance made the anthropologists into key figures in development or that they were more influential in socio-economic development than the mission and government servants who, though anonymous, may have achieved more in this direction. A.N.U. personnel have made presents of coffee hullers, both in Sivepa and Inonda; one anthropologist taught his key informant in Inonda to drive a car, as a result of which this man found a permanent job with the administration. These certainly were tangible moves in the direction of economic progress.

I found that among the Orokaiva, unlike the New Zealand Maori, I was never asked my opinion when some community decision was to be made nor was any greater interest displayed in the views of my predecessors. I was usually told when something had been decided (and decisions almost always seemed to be reached in my absence) and naturally I always expressed pleasure at receiving the information. The pattern was different only when I myself was directly involved. On the other hand my participation in community activities was sought and much appreciated. Our behaviour was closely observed and some minor innovations in housekeeping (the making of washing lines, airing of blankets, etc.) may be due to my wife. Everybody seemed concerned that our presence should not disturb the precarious balance of power--and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as key personalities, it is because Orokaiva attach special importance on the kind of relationships that are thus established with whites. I have already mentioned some hints we received that we might be returned ancestors; even if imagination does not go so far, the daily relationship established with the anthropologists comes close to what Orokaiva would regard as tolerable and human. It is in the texture of life that grows up between the population and the anthropologist rather than specific innovations that the importance of his visit lies; perhaps without realising it, he nurtures an ideology.

One of the significant mediators during my time in Sivepa was the head teacher of Ssembata school. His case will provide an example of the dangers of generalising about expatriates who are in fact an extremely complex group very imperfectly known. This man, aged about 28, had led a somewhat bohemian life in Australia, as a photographer, broadcaster and advertising agent. His decision to join the New Guinea mission was in part a conversion, in part a search for identity, in part a search for an assured place in the world. He married a mission teacher met in New Guinea. He found, in fact, that none of the fixed expatriate categories quite fitted him: he had absorbed, while in

Australia, enough of contemporary thought in literature, art and allied subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

Though membership is open to persons of any ethnic group, it seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority. The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasombata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader.
177 A leader, he said, must be very smart and understanding, have a lot
623 of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[157] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegasa. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence disliked, Robert, my neighbour. He was a man of about 32 who had most
[559] of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

123 to help others; he spoke softly and gently but when necessary could be
554 firm and tough; furthermore, he had a relatively wide experience of
159 the outside world. He had been a hunting leader before this task was transferred to the representative of the church council; he was also a leader in football. He came of a lineage with small land holdings in the Sivepe area, but his father had bought rights to additional holdings (with money Robert had earned) and his mother's brother had given him the use of other blocks Robert will eventually inherit.

159 When we came to the district he had just started his new house and was living, like many others in a small older one he had brought from Old Sivepe. He sold us his new house and stayed in the smaller one until we had gone. Though his house was thus among the most primitive in the village, it attracted more village visitors than any other; Robert and his rather attractive wife were popular. When the woman's club house was to be built, and when Lawrence had given the land, it was Robert to whom the women turned as a work leader. It was also Robert who decided that the work on the village houses and the mission hospital had more urgency (and that the clubhouse had better wait until it had ceased being a pawn in female factionism). Robert went to Port Moresby for a few months after a violent episode in his tumultuous marriage, hoping he would earn enough money to open a trade store.

He had about four years of working experience outside the village, as a houseboy, with the A. P. C. and on road work. Since then it was his ambition to start in business; in the early sixties, Jegase seems to have made some attempt at a trade store with disastrous results. He hoped to do better the next time, but a trade store opened up in an offshoot of Sasembata village just next to Sivepe, so that this is destined to remain a dream. Robert composed several songs over the year, and was constantly practising his drum. People usually waited for him before a dance practise could start, though he was not formally the dance leader. He also managed all the diplomatic manoeuvres necessitated by our presence. He did this with great honesty; I
[123 could always rely on all he said. Indeed, if it had not been for him
115] and his father, I wonder whether I could have come to grips with Sivepe at all. He also piloted us through the maze of the Orokaiva exchange system. He was the only person who never imposed on us, never asked for gifts. There was perhaps some calculation in this, as we were more disposed to respond to generosity than to the sharp trading engaged in by some others.

He had stood as a candidate for the council two years earlier but had been defeated, partly due to opposition from his affines. His first formal leadership role (apart from hunting and football) was as representative for Sivepe on the land adjudication committee. His father-in-law would have been better qualified, as he knew the land boundaries better, but he could not hold both committee posts simultaneously. It was interesting to see that in this situation, where the

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepa, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepa, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the woman's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were thought extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepa, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepa was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepa, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interprat a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepa was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepa leadership.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
754 walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
always a dangerous one; the calling down of spirits with bullroarers
782 in preparation for a feast (viz. Williams) was also, according to
178 Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepa and Hohorita

My subject of study obliged me, both in Sivepa and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepa, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pajetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[A] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. It was the people who chose the site for the village; the Bishop hoped that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

431 But recruitment to this status is not restricted to specific categories; any two
572 people can become *namei*. These bonds provide some measure of control
574 over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

572 (b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-
[591] law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated
[582] to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit
[431] each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

● 123 Unfortunately, a male anthropologist cannot plumb the mysteries of this
572 relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

628 If two unrelated young women of district A are *jao* and marry in villages
572 B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ACKNOWLEDGEMENTS

This research was made possible through my appointment as an assistant to the Department of Anthropology at the University of Oregon. I was commissioned to write a report for a project directed by Professor H. G. Barnett, entitled 'A Comparative Study of Culture Change and Stability in Displaced Communities in the Pacific'. This commission enabled my wife and myself to visit the Northern District of Papua for one year. I also received help from the Canada Council and the Killam Foundation.

I should acknowledge here the contribution made to this research by my wife, Mrs. Ziska Schwimmer, who not only bore with it but made many valuable observations which have been incorporated in this work. Among others who were helpful, kind, encouraging and inspiring in the field I should mention: Dr. R. Crocombe, executive officer of the New Guinea Research Unit of the A.N.U.; Miss Nancy White, a missionary and collector of valuable Orokaiva texts; Mr. M. Lean, head teacher of the Sasembata mission school; Dr. A. Radford, director of the Saiho hospital; Mr. C. Searle, a planter of Awala; their wives; and many other individuals attached to the mission and the administration.

My Papuan interpreters, research assistants and chief informants were the following: Mr. Stephen Oriri of Inonda; Messrs. Harold Heru, John Douglas and Brian Orua of Hohorita; Messrs. Robert Nanisi and Leon Bhagi and Miss Patricia Jove, of Sivepe; the Rev. Albert McLaren of Sasembata mission station, and Mr. Walter Waki of Popondetta. I owe a very special debt to Mr. Cromwell Burau who stayed with me for three weeks and communicated to me some of his deep insight into Orokaiva culture: and to Samuel Jovareka, our Orokaiva father, of Sivepe.

I should like to thank also some of the scholars who, for better or for worse, have helped in the development of this work by their encouragement, criticism and information; in alphabetical order: Dr. Homer G. Barnett, Dr. Cyril S. Belshaw, Dr. Kenelm O. L. Burridge, Dr. A. Capell, Dr. Peter Carstens, Dr. Jan Pouwer and Mr. Adrian Tanner. Finally I would thank the Social Sciences Division, Scarborough College, University of Toronto, for excellent secretarial services.

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5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*zivo*). A man

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

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(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepe village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 114 Work in the field was shared by Burau, Ferraris and Rimoldi. Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepe[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepe for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sasembata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

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[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

121 that studied at Inonda - was the relationship between localized
125 landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

125 The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close kinsmen dependent on him (see Genealogy on p.52 for links between [614] households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

121 Our observations at Sivepe were supplemented by less systematic
[124] interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[829] [1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

628 [3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

121

> would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

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The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself while, at Sivepe, logistical considerations prevented more than 30 to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

[124]
[123]

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Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a way as to cover expected seasonal variations in activity patterns (see Fig.5:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

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[1] Twenty-six in the case of Inonda.

pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

The most important trees in the Inonda subsistence economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work, they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

In addition to the rights of those born in Inonda, some wives claim rights to use economic trees in their home villages. They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four whose stores had an average monthly turnover of less than $50.00.
472 Group III comprises those with a turnover in excess of $50 a month.

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[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in the Northern District of Papua in which land previously held under 423 customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from official files. Where recorded information was not available, 124 estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During 122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were 115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Mumu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a [121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

I am indebted to the New Guinea Research Unit of the Australian National University for generous financial assistance. I wish to thank the Chief Commissioner of Land Titles (Mr D.J. Kelliher) and members of the Commission in Popondetta and Port Moresby; officers of the Department of Agriculture, Stock and Fisheries in Popondetta, and of the Department of District Administration in Popondetta, who discussed various aspects of the project and assisted me in every possible way; Mr Cromwell Burau, Mr Russell Clarke and Mr Napier Boraba who helped greatly by interpreting both Orokaiva language and culture; Mrs Yvonne McMahon who typed a manuscript which was at times barely legible; and the Ombi-Tara villagers whose warmth, hospitality and enthusiastic co-operation made our stay so enjoyable. Helpful comments on an earlier draft were made by Dr R.G. Crocombe, Mr E.K. Fisk, Mr G.R. Hogbin, Dr R.T. Shand, Mrs S. Faircloth and Mr W. Standish. I am particularly grateful to Dr R.G. Crocombe, Executive Officer of the New Guinea Research Unit, for his advice and encouragement at all stages of the project.

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[124]
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19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

Of the 12 months spent in the Territory of Papua, my wife and I lived in Orokaiva villages for more than 10 months, dividing the rest of the time between Port Moresby and the administrative centre of Popondetta. Most of the field period was spent in Sivepa, with three weeks in Inonda and five weeks in Hohorita. In Inonda we made use of a house previously used by the New Guinea Research Unit; in Sivepa a village house was built for us while at Hohorita we were squatting in an uncompleted village house--an unsatisfactory arrangement which accounts, in part, for the brevity of our stay. Fortunately, we had extremely competent research assistance at Hohorita, after we stopped residing there. The head teacher, Mr. Harold Haru, prepared extremely good genealogical records, showing residence of matrilateral and affinal kin as well as clan structure and residence.

The basic source of the material that follows are my own field notes. These are supplemented by government records, the publications on the Orokaiva and the eruption published by F. E. Williams, Reay, Belshaw, Keesing, Crocombe, Hogbin, Rimoldi, Waddell. I also collected tape recordings containing 50 basic documents in the Orokaiva language; transcriptions in Orokaiva and translations into English are available. A number of Europeans who were concerned with the administration of the temporary refugee camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C. Searle, Mr. R. Hart and others too numerous to mention. Miss Nancy White, a mission teacher at Hohorita, apart from giving other help, put at my disposal a valuable collection of her diary notes, important letters written to her and Orokaiva texts collected at the Sasembata mission school in the years 1952 - 1953.

Section 3: The Day of the Eruption

121 As the eruption itself is the central event of this entire
128 report, I shall dwell upon it in some detail. I shall discuss it from five vantage points: the vulcanologist's, the experience of the Sangara people, the Sivepe and the Inonda people, and finally
133 the action of the administration. The vulcanological aspects have been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption
731 of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours on Sunday, 21 January, 1951, a paroxysmal explosion burst from the crater and produced a nuée ardente which completely devastated a surrounding area of 68 square miles." This explosion had a marked resemblance to that of Mount Pelée at St. Pierre on Martinique in 1902, when 29,000 people perished in a few minutes. The effect of the Pelean type of explosion is very different from the more usual one which is called "Vulcanian," and which occurred, for instance, at the famous eruption of Vesuvius described by Pliny. One may compare it, rather, with the effect of an atomic bomb; the lethal effect of the nuée ardente seemed to be due mainly to sudden damage to the respiratory system caused by inhaling hot dust. Almost 4,000 people were killed. Destruction in the inner zone of devastation was almost complete: the rain forest on the slopes was flattened and in some places the earth was swept bare, not even stumps remaining as evidence of the previous forest cover. At Higaturu, six miles from the crater, only one house remained reasonably intact; most of the buildings on the government station were carried away. Of the people who lived in this inner zone of devastation scarcely a single one remained alive.

Taylor classified a further 2? square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Hoborita came from villages such as Tunana, Semmi, Sehundeturu, all of which lie in the area of partial devastation. From the village of Sombo, on the boundary of the area of complete devastation, one man escaped (Table 1).A

731 I interviewed members of 15 Hoborita households about their experiences during the day of the eruption. Some of them escaped
● [124] because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Ambogo immediately

A [See Cat. 116, p. 205--Analyst]

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous villages. I collected the kindreds, up to two degrees removed, of [124] 51 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9 shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; meeting them less than once a year would not be quite right. [794] Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

Section 4: Other Contacts with the Waseta "Tribe"

While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matriline, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Isivita villages and with Togahou. The links with Soroputa and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Avala (three miles from Sivepe) also has a special explanation beyond [438] [323] common clanship: Sivepe people were dependant upon Avala clay for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

A [See Cat. 116, p. 214--Analyst]

829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

CHAPTER VI: Government Welfare Efforts

Section 1: Relocation Plans and Their Implementation

657 After the second world war, the Australian government became strongly oriented towards economic development of the indigenous population in its Territories. While before the war, the policy emphasis was perhaps more on the maintenance of law and order and the development of expatriate industry, it is after 1946 that we begin to find the active encouragement on a wide scale of co-operative societies, agricultural extension projects, marketing projects, rural progress societies, and later Native Local Government Councils, as well as other political and economic programmes. Even after 1946, progress was slow and in a recent survey, R. S. Parker suggested that "relative inattention to economic development up to 1960 have left a great leeway to be caught up under insistent pressures of time and external change." (1966: 189)

In 1951, shortly after the first eruption of Mount Lamington, the Hon. Paul Hasluck became Minister for Territories in the Australian Cabinet, and Sir Donald Cleland became Administrator of the Territories. One of the chief concerns of the new administration was to increase the scale, the level of technical competence and the concentration of effort in the departments concerned with indigenous development. (Parker. ibid. 195) The relocation policy in the Northern District is more easily understood if it is remembered that in 1951 a new central administration was eager to make rapid strides in economic and social development while the staff establishment and the "basic craftsmanship of the service" (Hasluck quoted in Parker, 1966) was not yet adjusted to these new objectives.

In considering Australian relocation policy, we must therefore keep in mind that there was a disparity between the more sanguine development objectives and the available resources. Furthermore, there was no real consensus in the administration on the scope that [124] should be given to the development objectives. When I interviewed persons concerned with the events of 1951, everyone told me that the establishment of the camps and the resettlement villages was principally a rescue operation, and that wider development objectives were only incidental. On the other hand, it was possible, from published [731] statements by Belshaw, 1951; Keesing, 1953; Plant n.d.; and interviews with Bishop Hand, Mr. F. Kaad and others, to piece together a quite different attitude to the disaster that must have been current in 1951 among high-level development-minded officials. According to this approach, the disaster offered a unique opportunity to try out some

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was
121 a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any of the others. He was the only one to have recognised that our [176] civilisation actually does have some moral values. I recorded stories from a great many informants on tape--the subjects being usually [179] selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 157 To conclude these impressionistic sketches, I shall suggest a contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned service-man's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepe, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepe, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the women's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were though extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepe, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepe was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepe, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interpret a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepe was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepe leadership.

Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined. In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

In an earlier chapter I described a ceremony for children about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the village boundaries. When the children came back to the village (which was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little different for my interpreter who had been to Martyr's School and who therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

really stood. In this, there may have been a certain hollowness; I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

Children were trained by their parents in the prevalent system of custom and belief, as modified by recent changes; they maintained their traditional regard for their elders, not regarding their school knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the village, including ourselves, were expected to fulfill reciprocal obligations in the community; the acculturated young were certainly expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepe. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

The penalty threatening an absentee who neglected his kin had to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

125

125 TESTS AND SCHEDULES--description of tests used (e.g., intelligence, projective); schedules and questionnaires employed (e.g., preparation, pretesting); administration of tests, schedules, and questionnaires; sampling techniques; methods of scoring; use of control groups; special experiments; census-taking by author; etc. See also:

Results of tests of sensation and perception . . 181
Results of aptitude and intelligence tests . . . 183
Results of personality tests 187, 189

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

824 773

4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 125 592 between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

824 431 621 128 To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

[737] In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was [166] helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

824 431 571 621 Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing [101] 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was [464] closed for recruiting but this did not solve the problem of the [799] supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepo was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
●125 manageable size from among Sivepo villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepo was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

that studied at Inonda - was the relationship between localized landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close kinsmen dependent on him (see Genealogy on p.52 for links between households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

Our observations at Sivepe were supplemented by less systematic interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

[3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

423 clansmen or other kin of members of the group. But this takes the
[614] form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among
●125 members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 3 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together to their gardens, but each household then cultivates its garden [462] alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Preface

The New Guinea Research Unit has undertaken several studies among the Orokaiva as part of a programme of research into systems of land tenure and their relationship to economic development.[1] The present enquiry was designed to extend the information gained from these studies through an analysis of the organisation of work and the patterns of exchange among communities practising both subsistence gardening and cash cropping. 121

More specifically, it was concerned to ascertain whether the requirements of the subsistence sector of the economy impose limitations on the expansion of activities in the monetary sector and, conversely, whether participation in the monetary sector involves restrictions on subsistence activities. Within this framework attention was directed to observing the extent of participation in commercial activities, how cash is used, whether periodic peaks of labour occur in the two sectors and whether there are common factors in the backgrounds of people cultivating cash crops. Brief consideration was also given to other phenomena influencing the relationship between the two sectors: the physical environment, the social system, the system of land tenure, the types of cash crops grown and the nature of the people's contacts with innovating agencies (principally the Administration and the Anglican mission).

Method of investigation

Simultaneous enquiries were conducted in two villages, Sivepe and Inonda, in the Higaturu Local Government Council area of the Northern District. Both had been the subject of earlier studies conducted under the auspices of the New Guinea Research Unit and much background information was available. Census data, an inventory of material possessions (including trees and livestock) and details of cultivated areas were collected. Daily records of all activities and transactions for the same individuals were entered on two schedules: (i) work organisation and (ii) acquisition and disposal of goods, cash and services. Diaries were kept to record [101] 1250

[1] See New Guinea Research Bulletin, numbers 2, 4, 6, 11, 13, 16 and 17.

125 interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

121 [101] The survey was conducted over three separate periods during 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of available rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activities.[2] [101] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

[101] In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

114 128 The gathering of field data was shared equally between the authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

128 [122] [114] The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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[1] In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

[2] It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964) the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

A, [See Category 163, p. 307--Analyst] B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

433 subsistence holdings in Sivepe, three individuals had no producing staple foods in their gardens.

592 Three of the fifteen households surveyed comprise only a single member. Two of these were a married couple who were considered, for the purposes of the survey, as separate households on the grounds that the wife lived for only short periods with her husband, dividing most of her time between her brother's and her father's houses instead.[1] The husband and the third individual, an old man, lived in their own houses, although the former abandoned his on departure from the village in August. One widowed woman and her children had no house of their own but shared those of primary kin until the end of March when she left to marry a man in another village. A second family left at about the same time, in search of wage employment. Thus, by November 1964, the number of households had fallen to twelve while for most purposes the separated woman (household 8) had become a member of her parent's household (14).

All the identified households cultivated separate gardens. For most of the survey period, two households had attached to them the wives and children[2] of two men at work outside the District. Both household heads, in establishing a garden, set aside a portion for the sole use and responsibility of these women, as they were expected to contribute to the household's food requirements.

(a) Food gardens

24 125 A detailed survey was made of the holdings of seven households, selected to provide a cross-section of the community in terms of status of head, structure of household and involvement in cash cropping. These data were then compared with that collected by Rimoldi almost two years previously (see Tables 4:1 and 4:2). While the small size of the samples, 11 and 7 households respectively, makes it dangerous to draw conclusions, a few observations can be made.

Table 4:1 reveals a fall of 44 per cent in the average size of holdings planted with taro (Colocasia) and sweet potato. In 1964, the maximum sizes of taro and sweet potato areas were much lower than in 1963. This is offset, however, by very substantial increases to three and nine times (respectively) in the average plantings of yams and Xanthosoma. The holdings of two young household heads were responsible for almost all of these increases.[3]

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[1] i.e. effectively there were only 14 households, as recorded in Appendix 1.

[2] In one case, the daughter of the household head and her son, and in the other, the man's wife and her son.

[3] One has established a yam garden of 0.16 acres and the other a Xanthosoma garden of 0.15 acres.

Table 4:1

Sivepe: mean garden areas under cultivation, 1963 and 1964*
(acres)

Garden	Per head of population		Per able-bodied person (over 16)		Per household	
	1963	1964	1963	1964	1963	1964
Currently producing	0.14	0.05	0.27	0.10	0.57	0.20
Planted but not producing	0.12	0.11	0.23	0.20	0.48	0.43
Cleared only	0.10	0.04	0.20	0.08	0.43	0.17
Total area under cultivation	0.36	0.20	0.70	0.38	1.48	0.80

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Table 4:2

Sivepe: food plants per household, 1963 and 1964*

Crop		Average		Range	
		1963	1964	1963	1964
Taro (Col.)	(acres)	0.97	0.54	0.39-2.30	0.40-0.72
Sweet potato	(acres)	0.07	0.04	nil-0.20	nil-0.07
Bananas	(plants)	71	128	35-126	73-231
Sugar-cane	(clumps)	34	40	11-54	21-99
Ina	(plants)	88	54	nil-400	24-104
Yams	(vines)	65	202	nil-136	nil-892
Manioc	(plants)	few	10	few	2-30
Xanthosoma	(plants)	28	252	nil-91	nil-1027
Corn	(plants)	223	65	nil-442	nil-157
Pineapples	(plants)	nil	4	nil	nil-24
Cucurbits	(vines)	13	5	9-28	nil-14
Shallots	(plants)	few	1	few	nil-6
Beans	(plants)	17	15	nil-110	nil-63
Tomatoes	(plants)	nil	1	nil	nil-3

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Between the two surveys, cultivated area per head fell (see Table 4:1) to 55 per cent of the figures collected by Rimoldi and close to that considered the minimum requirement for shifting

241 cultivators in New Guinea.[1] This was due partly to changing emphases in the pattern of work between the two surveys, particularly the greater amount of time used for external agencies and in the inception of two communal enterprises (the establishment of a cash crop garden and preparations for the transfer of the village to a new site). Three other factors must be taken into account. [125] Firstly, a slightly different survey technique was employed by Rimoldi. The 1964 measurements were confined to a single point in time, whereas Rimoldi measured all the gardens and then added any extensions which occurred during the survey period (about six weeks) without deducting any areas which might have gone out of [132] production. Secondly, 1964 proved to be a highly unseasonal year at Sivepa in that recorded rainfall in August exceeded that in December (1,542 and 1,416 points respectively) and the number of rain days was the same in each month (24). This disrupted the cycle of agricultural activities and prevented the customary clearing of forest for new gardens during dry weather. For this reason, figures for areas planted but not producing (see Table 4:1) approximate closely to Rimoldi's, whereas cleared and producing areas fall far short.[2] Thirdly, two household heads within the group surveyed in 1964 had been absent from the village for two to three months before the data were collected, and third's activities were partially diverted by his involvement in a contract to build a house at Saiho hospital, and most of the community were involved for several weeks in building the new road to Sasembata and in erecting classrooms on the mission station.

245 (b) Economic trees and livestock

The holdings of economic trees (Table 4:3) indicate their importance for subsistence. Breadfruit comprises a very large proportion of the intake of starches at the onset of the dry season and only when most of it has been harvested do the people resort to sago-making. Areca is chewed by almost all adults, while the milk of the green coconut is drunk as refreshment and the meat grated to use in preparing staple foods. Hauga (Canarium sp.) nuts, when in season, are gathered and consumed largely by children.

[136] All economic trees, except for the recently introduced orange, grow wild in the bush but are claimed as individual property. Several, particularly coconut, areca palms and hingi trees, are also planted in gardens and on the periphery of the village.

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[1] See Barrau 1958:32; Brookfield 1962:245, 251; Bureau of Statistics 1963:14.

[132] [2] Similarly, a long unseasonal dry spell occurred during the last few weeks of Rimoldi's survey with the consequent extensive clearing of land for new gardens.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 5:1

Activities covered by the survey and the categories to which they are allocated

Category: Function	Activity: Group	Activity: Individual	Category: Sector
Productive	Clearing		
	Subsistence gardening:	Fencing	
		Taro (plant, maintain, harvest, market)	
		Sweet potato (plant, harvest, market)	
		Yam (plant, maintain, harvest)	
		Minor crops (plant, maintain, harvest, market)	Subsistence
	Other subsistence food production:		
		Fishing	
		Hunting	
		Sago-making	
	Other subsistence activities:		
		Preparation of tools and equipment	
		Construction	
	Cash cropping:	Coffee (maintain, harvest, process, market)	External
		Rubber (harvest, market)	
	Paid work		
	Household:	Washing	
		Cooking	
		Collecting firewood	
	Social obligations:	Marriage	Subsistence
		Death	
		Other	
		Visiting	
Non-productive	Sick:	Personal	
		Care of sick	
	External agencies:	* Purchasing	
		Council work	
		Meetings	External
		Church work	
		Church services	
	Miscellaneous:	Recreation	
		Other	
		Researchers	

121

would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

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The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself while, at Sivepe, logistical considerations prevented more than 30 to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

[124]
[123]

Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a way as to cover expected seasonal variations in activity patterns (see Fig.5:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

128

[1] Twenty-six in the case of Inonda.

Chapter 6

Activity patterns: Sivepe

125

Introduction

The Sivepe survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

Chapter 10

Exchange patterns: Sivepe

The nature and volume of transactions

437
[125] As in the case of data relating to activity patterns, the transactions of the 35 adult members of the sample were recorded over a period of 25 weeks and 4 days, or 4,741 man-days. However, in view of the household functioning as the basic unit of production and consumption, attention was restricted to inter-household exchanges. These transactions were effected on only 63 per cent (2,987) of the man-days, the mean number being three per transacting day. Distinctive features are associated with the range, nature of partner and circumstances in which each of the five [431] identified categories is exchanged. Subsistence produce and labour services are associated primarily with the subsistence sector and cash crops, storebought goods and cash with the external, the former being characterised as gift exchange and the latter as monetary in that there is an immediate exchange of goods for cash (see Tables 10:1 and 10:2). Although large sums of money do enter the community through the gift exchange system, it will be demonstrated that these originate primarily from wage earners employed in the external sector. In effect, therefore, the distinction which emerges between the two sectors in production and activity patterns is maintained in the systems of exchange. The concept of the market economy is of only restricted application although, as the volume of gift exchanges suggests, it does not follow that there is no demand for subsistence produce within the community.

(a) Non-monetary sector

431
437 (i) Subsistence produce. Subsistence foodstuffs dominate the non-monetary transactions with 25,909 lbs being exchanged. Both at the level of specific goods and of the sum of goods the basic feature of balance in exchange is demonstrated for, if transactions with the researchers are excluded, acquisitions account for 48 per cent of all transactions. Since this equivalence also occurs at the level of individual goods it suggests no significant geographical variations in the relative abundance or scarcity of goods within the range of transacting partners. While the volume of transactions of specific items does, crudely, reflect the relative importance

A,[See Categories 438, 439, pp. 186 & 189--Analyst]

Preface

125 [101] In this study, carried out between February and April 1963, seven groups of adult male Orokaiva were tested using a culture-fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

[p.4 is blank]

121 It became evident that the best tests were those that depended least on the translations of test instruction but utilized miming procedures for maximum communication. The performance of the test items and the test itself are part of the progressive communication and elaboration of the task.

The present study

125 [121] Seven different groups were tested. These had been selected previously by the New Guinea Research Unit for special study because of their different approaches to land tenure.

A description of the samples in order of testing is given in Table 1.

It was decided to take a sample of 20 adult males from each group. Many of these had already been included in studies planned by or undertaken in conjunction with the New Guinea Research Unit.

In the village of Inonda there were insufficient adult male testees, so numbers were supplemented by ten from the nearest related group, Hohota, about five miles away. In addition, at the time of testing three men were added to the Sivepe sample from the related village of Binduta to bring the sample size to 20. At Beporo a sample had already been selected from the Kurou clan and this was supplemented by testees from six other clans to complete the sample. The samples at Ongoho and Borugasusu were just sufficient in size to be complete. The ex-servicemen sample had been previously selected for fuller study. They came from Isevene, Sangara and Girua.

[464] Plantation labourers were selected randomly from the lines of Orokaiva tappers and clearers. Plantations often draw upon one type of labourer who may or may not come from one tribe or region. Three plantations were used to reduce any bias. They were 'Awala' plantation, 'Kagana' plantation and 'Mayoh' plantation. These labourers were not the same individuals as those studied by Howlett.

The tests used

121 125 In this study an item is defined as a single unit in a series of similar units. It is complete in itself but when joined together with the other items forms a test. A test then, is a number of similar items following the same rationale. A battery is a number of tests that can be combined in any way, depending on the requirements.

9: Kearney P-5 (1963) 1966 QJ23 Orokaiva QJ23

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Motu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepe	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pereko
Ex-service-men settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isevene, Sangara and Girua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

162
125
423
133
177

125 (i) The battery

There were seven tests. Tests 1, 2, 3, 5, 6 in the following list were adaptations by Ord of tests which have been used in a number of test batteries. In this study the original Ord versions have been used except for some minor changes.

1. The Knox Cube Imitation Test. This test is essentially the same as that used in the Arthur Point Performance Scale (1943). Four red ¾" cubes are attached at equal intervals to a grey base frame 8" long. Two detached red ¾" cubes are used for tapping.

The tester gives the testee a detached cube and with another taps a sequence on the frame and then invites the testee to tap the sequence on the frame.

2. Bead Threading. This test is a modification of the Stanford-Binet 'copying a bead chain' item. The tester displays a pre-constructed bead chain for a predetermined period, the time depending on difficulty level. After the original bead chain has been removed, the testee is required to make a similar pattern by threading the beads on a length of plastic string. Three types of beads are used - cubic, spherical and cylindrical.

3. Passalong Test. This test was originally devised by Alexander (1932) and is a version of the sliding block puzzles. The sizes of the tiles, frames and stimulus cards have been altered so that the patterns on the stimulus cards are identical in area to those of the completed tile patterns. Both are larger than the original.

The testee is required to make a pattern in a white plastic frame, similar to that on a stimulus card. This is done by sliding the tiles about on the frame.

4. The Form Assembly Test. This form board, although a completely new design, departs very little from the general pattern of form boards following Seguin's original work. A single plastic board, measuring 14" x 5" with seven designs (square, triangle, etc.) glued to it, is presented to the testee. A square plastic stencil measuring 4" x 4", with an area missing, is placed on the right hand side of the board, and the testee indicates by pointing which piece or pieces could fill the missing area to complete the square.

The early designs in the series have simple one-piece solutions, the later designs require complex three-piece solutions.

5. Picture Matching Test. This test is a variation of the cube construction test designed by Kohs (1923). The three-dimensional cubes have been replaced by thin tiles of which two surfaces are relevant. The tiles are the same on both surfaces, being either all red, or all white, or half red and half white.

125 A testee is presented with a printed design and asked to match this design on a plastic frame. The early patterns require 4 tiles, the next 9, and the final ones 16.

6. The Kim Game. Rudyard Kipling in Kim suggested an observation test suitable for selection purposes. This test involves memory for objects. The testee is required to look at some objects on a board for a specified time, and then cover his eyes while new objects are added to the original ones on the board. There is no change in the position of the original objects. He is then required to remove the new items.

The first item has 10 original and 6 new objects and the second item has 25 original and 15 new objects.

7. Gestalt Continuation Test Form A. This test is the only test in the battery requiring the use of pencil and paper. It was designed by Hector (1960) of the National Institute of Personnel Research in South Africa who found it suitable for use amongst illiterate mine workers. The patterns used here are the same as Hector's. Hector presented testees with printed half patterns which had to be completed. However, in the present case, the first section only of the pattern was drawn by the tester in the view of the testee who was required to complete this pattern in the remaining space.

(ii) Practice items

The battery can be administered without the use of spoken language by simple miming procedures. The Kim Game is probably the most difficult but can be managed if careful attention is paid to the practice items.

Each test begins with a number of simple practice items. The testee repeats these items until he has mastered the process involved. The items increase in complexity so that more elaborate strategies are demanded for their solution. The number of practice and test items in each of the tests is presented in Table 2.

Table 2

The test battery

	Practice items	Test items	Timed	Approximate testing time (mins)
Cube Imitation	1	10	No	5
Bead Threading	2	6	Yes	10
Passalong	1	7	Yes	12
Form Assembly	2	12	No	15
Pattern Matching	2	11	Yes	15
Kim Game	1	2	Yes	10
Gestalt Continuation Form A	0	4	No	5
Total	9	52		72

125 (iii) Test administration

Testing was done individually during daylight hours at the testees' home villages. The time spent in testing varied considerably depending upon the quality of the response.

123 Establishment of adequate rapport is important in all psychological testing. A number of factors contributed to its establishment in the present case. The field staff and the New Guinea Research Unit were well known to the testees, personally in the majority of cases, and at least by reputation in the remainder. This led to a readiness to co-operate in the research programme. The physical material of the test is itself attractive and appealing. Testees do not become bored or stressed during testing as the item type changes fairly rapidly.

125 A card table approximately 3 feet square was used to provide a flat surface on which testing took place.

(iv) Scoring systems

There are currently a number of scoring systems available for use with this battery. The first of these was devised by Ord (1959). This utilized time bonuses and credit for partially correct responses. Other systems were developed by Kearney (1962). Test scores derived from the different scoring systems were correlated by the product-moment method in a 27 x 27 matrix. When one marking system is correlated with any other marking system for the same test, the correlation did not fall below r = 0.9 except in one case where r = 0.85.

One system of analysis used simple binaries (i.e., 1 mark if totally correct, 0 marks if incorrect) to avoid any contamination of the results by a marking effect. It might have been thought that delection of time bonuses and part marks would render results less sensitive to small changes in performance, but the above results have not borne this out. There were time limits but these did not make the task rely on speed but were imposed so as to have a standard discontinuation time when the testee was unable to complete the item.

The simple binary system makes no assumption about the relative weightings of various items or ideal time bonuses. In this analysis this system has been used.

Results

153 The means and standard deviations of the test score are presented in Table 3.

436 Several villagers were asked separately to rank each kind of hambo and di in descending order of value. There was agreement as to the ordinal value of most items and the few discrepancies were eliminated by discussion with the elders.

[125] We took a list of hambo and di from each household head and details of the person from whom he had acquired each item, his relationship to that person, and the reason for the acquisition (whether as bride-price or by barter, cash purchase [128] or otherwise). Cash values for each type of di and hambo were assessed on the basis of average prices realized in known sales and purchases. Where the people could not recall an instance of the sale or purchase of a particular item, its value was estimated from its position on the scale of relative values given to us by the local people. Hambo were valued from £3 for daremo (though occasionally extra large ones sell for up to £20) down to 2/- for the more common articles. Most feathers are now so abundant that they have no cash value, but bird of paradise, ungaijawo and cassawary plumes are still sold. Further details of assessed values of hambo and di are given in Appendix E[A]

435 436 The cash value of hambo and di held in the village at the time of our survey was as follows:

Table 5

Cash value of hambo and di

	Cash value	Household range	Household average
Hambo	£52.17. 0	0 - £15. 6. 0	£6.12. 2
Di	£17.17. 0	0 - £ 4. 6. 0	£2. 4. 8
Total	£70.14. 0	0 - £19.12. 0	£8.16.10

Few men looked after their own valuables. Two brothers (each the head of a separate household) who kept theirs jointly, left them in the care of their married sister in another village. Another two brothers and their father left their valuables, which they owned jointly, with the wife of the elder brother. Those of another household were held by the wife of the household head. In one instance the household valuables were left in another village in the care of the parents of the

A [See Category 436, pp. 97-99--Analyst]

early on Sunday morning, but otherwise Saturday and Sunday are spent in much the same way as the other days of the week. Most people trim the grass and clear away any rubbish around their houses on Friday mornings. This is known as "council work" as it is made mandatory by a council by-law. It takes only an hour or two and not all villagers do these chores at this time.

Although there is some seasonal rhythm in subsistence activities, it does not seem to be very great, and relatively few other activities are affected by seasonal variations. The obligations associated with death, marriage and ceremonial activities seem to have a much greater effect on the patterns of work.

House-building, hunting and bush-clearing are primarily the province of men. Women's work includes weeding, harvesting, and domestic chores. Both sexes co-operate in planting, collecting firewood, stacking and burning dead wood, and foraging for wild foods. Men appear to work jointly with their wives much more in the cash crop gardens than they do in the food gardens.

A brief survey of patterns of work was undertaken for a period of six weeks (from 2nd July to 12th August 1962). Such a short study cannot give any indication of seasonal variations, nor can it be considered as necessarily representative of the year as a whole. In fact, owing to the death of one of the village elders during our stay, a considerable amount of time was spent in mourning and attendant social obligations. But since the beginning of 1959 there have been an average of two deaths per year in the village, and when one considers that the villagers are also involved in deaths of relatives in other villages, in marriages both here and elsewhere, in feasts, church celebrations and other commitments, the amount of time spent in social obligations during this period may not have been unduly out of proportion. The survey was undertaken as a pilot project only, on the basis of which it is proposed to organize a much deeper study of time patterns among the Orokaiva over a

125 period of up to twelve months.

Data were collected daily on the work undertaken by each villager of fifteen years of age and over. Details of the work proposed for each day were noted each morning, and usually verified in the evening. However, as the people do not have clocks and we were unable to make detailed checks throughout the day, the number of hours recorded for each task can only be taken as approximate.

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461 It is much easier to summarize and compare the hours spent in various activities if we have a standard yardstick of a day's work. Plantation labourers work an eight-hour day, but we are reluctant to use this as a basis for comparison with village folk. On the other hand, a simple total of hours spent in each task can also be misleading: for example, the councillor on one occasion spent seventeen hours on council work (including travelling time) in one day. Merely added into a list of hours this would suggest that more than two full days were spent on this duty, though this was not in fact the case. Likewise we have found it difficult to account for days spent in mourning, travelling or celebrating in such a way that total time can be effectively compared. From a preliminary analysis of days which were not marred by mourning, celebrating or sickness, we found that people were occupied in activities other than domestic and leisure for about seven hours daily. Therefore when a day is taken up with sickness, mourning, travelling or other non-productive occupations, we have recorded it for comparative purposes as seven hours.

It will be seen from Table 11 that on the average each man spent 14.0 hours a week on subsistence activities (including hunting etc.) and each woman 15.1 hours. If the time spent in cash cropping is added to this the average becomes 14.7 hours for men and 16.0 hours for women.

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

[125]

(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependents. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 681

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

402 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogerem who was not himself an Orokaiva man. He was born about 1910 in Bako village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kavamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo [443] after the invasion was repulsed, he did not remain long before returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [871] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

177 individual names to become part of village history. The anthropologists
[657] who had been in the two villages, under the auspices of A.N.U., were
all very well remembered by name. When we included in a questionnaire
● [125] a request for the names of Europeans our informants knew well, we were
given a list including all the anthropologists, by their first names,
and nobody else. This was almost a standard reaction. I am not at
all sure that this close acquaintance made the anthropologists into
key figures in development or that they were more influential in socio-
economic development than the mission and government servants who,
though anonymous, may have achieved more in this direction. A.N.U.
personnel have made presents of coffee hullers, both in Sivepe and
Inonda; one anthropologist taught his key informant in Inonda to drive
a car, as a result of which this man found a permanent job with the
administration. These certainly were tangible moves in the direction
of economic progress.

177 I found that among the Orokaiva, unlike the New Zealand Maori,
123 I was never asked my opinion when some community decision was to be
made nor was any greater interest displayed in the views of my predeces-
sors. I was usually told when something had been decided (and decisions
almost always seemed to be reached in my absence) and naturally I
always expressed pleasure at receiving the information. The pattern
was different only when I myself was directly involved. On the other
hand my participation in community activities was sought and much
appreciated. Our behaviour was closely observed and some minor
innovations in housekeeping (the making of washing lines, airing of
blankets, etc.) may be due to my wife. Everybody seemed concerned
that our presence should not disturb the precarious balance of power--
and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as
key personalities, it is because Orokaiva attach special importance
on the kind of relationships that are thus established with whites.
I have already mentioned some hints we received that we might be
returned ancestors; even if imagination does not go so far, the daily
relationship established with the anthropologists comes close to what
Orokaiva would regard as tolerable and human. It is in the texture
of life that grows up between the population and the anthropologist
rather than specific innovations that the importance of his visit
lies; perhaps without realising it, he nurtures an ideology.

875 One of the significant mediators during my time in Sivepe was
657 the head teacher of Sasembata school. His case will provide an example
of the dangers of generalising about expatriates who are in fact an
extremely complex group very imperfectly known. This man, aged about
28, had led a somewhat bohemian life in Australia, as a photographer,
broadcaster and advertising agent. His decision to join the New Guinea
mission was in part a conversion, in part a search for identity, in
part a search for an assured place in the world. He married a mission
teacher met in New Guinea. He found, in fact, that none of the fixed
expatriate categories quite fitted him: he had absorbed, while in

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva O...3
Mountain Orokaiva

says that at the end of original time, warfare became an intrinsic part of social life. Two more specific messages emerge:

1. The institution created by the thief was *isoro* (intertribal warfare) which was cogently distinguished by Williams (1930: 160–6) from *embogi* (inter-clan fighting). *Isoro*, as opposed to *embogi*, takes place between groups who are geographically fairly distant, are often the speakers of different languages or dialects, and who do not usually maintain close social relations. In *isoro*, but not *embogi*, men fight to kill and eat each other. The myth therefore provides a charter for an institution by which social groups are in permanent strife with one another and permanently seek to kill and eat each other.

2. The myth states that this trife, in particular, divides the people from up-hill and down-valley. I have already pointed out that the main immediate cause of warfare around Mount Lamington was pressure of population generated on the fertile foothills, which led to groups being driven downwards, while these groups in turn drove the valley people further and further from the mountain to less desirable territory.

The social philosophy expressed in this myth is therefore based partly on the observation of ecological realities. Given a fertile centre and an increasingly infertile, but practically boundless periphery, strife is indeed endemic between social groups because the centre will continue to develop a denser population than it can support, and will always be able to muster much bigger raiding parties than the sparsely populated hinterland. It may lose battles now and then but in the long run it must be able to drive its excess population downwards. Thus the opposing forces will tend to be placed, as the myth says, up-hill and down-valley. The historical facts, as reported by Chinnery and Beaver (1916), Monckton (1921, Ch. XXIV) Williams (1930: 152–4), and Crocombe and Hogbin (1963: 14–16), all suggest that valley populations such as Aiga, Sauaha and Dobudura originally lived near the mountain and were driven off.

So far, Orokaiva social philosophy looks notably like Hobbes' view of social life as it would be in a state of nature. Between the warring groups, certainly, there appears to be no justice or injustice, but only war, and 'force and fraud are, in war, the two cardinal virtues'. How can fiduciary social relations be established at all in a world of this kind? As we know, Hobbes argued that it could be done only by the establishment of central authority, a step the Orokaiva did not take.

In order to present, as fully as possible, how the Orokaiva answered this question, I shall begin by quoting a myth told to me by Gideon of Hamburata, a village in the Sasembata district.[1] I had asked Gideon to tell me the origin of feasts, then taped the reply and translated it from Orokaiva:

> I shall tell you how feasting began.
>
> Three men, after marrying wives, set out and settled by the root of a *barivo* tree. They had twelve children. When they had enough children, they built a house and founded a village. Then, deciding to leave, they made a feast by the root of that tree.
>
> They all collected taro, made a platform, prepared all the food and got ready. Gasi, the last-born son, tied together his taro for the feast, intending

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

241 About 2 acres of land held by the sample were being used for food gardens by members of other clans. If we assume that the parties periodically exercising reciprocal usufructuary rights to each others' land eventually use comparable areas, the number of acres of a patrilineal group's land cultivated over several years will be roughly equivalent to the total area which it has itself cultivated.

(126) Chain and compass surveys were made of all current gardens cultivated by the sample. These gardens ranged from plots overgrown with weeds, but still yielding taro or sweet potato, to newly cleared areas. Measurements of the areas which were cleared during the last 2 weeks of our survey were made hurriedly and are less accurate than the other figures. The time spent clearing new areas in each of these 2 weeks was more than the total time spent on gardening recorded in any previous week and the figures below at least give a fair indication of the significant size of new clearings in relation to other categories of the area under cultivation shown in Table 2. The lack of rain at the time made it impossible to plant any of the new areas immediately.

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Table 2

Current garden areas
(acres)

	Area per head of population	Area per able-bodied person (over 16)	Area per household	Total
Garden currently producing	0.14	0.27	0.57	6.86
Garden planted not yet producing	0.12	0.23	0.48	5.81
Garden cleared not yet planted	0.10	0.20	0.43	5.17
Total area under cultivation	0.36	0.70	1.48	17.84

The 0.36 acres of current garden per head of population compares with the figure of 0.31 at Inonda (Crocombe and Hogbin 1963:10).

The proportion of currently-producing gardens seems to have been unusually small at the time of our survey. Sixty-one per cent of the garden area had been brought under cultivation in the past 5 months (2.2 acres per month), whereas the rest was all that was still producing after cultivation during the year before that. Some households had planted, harvested and abandoned some plots in the meantime. Most of the gardens which were being harvested

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Many expatriate residents of Papua-New Guinea - public servants, missionaries and settlers - gave freely of their experience and provided practical assistance and hospitality. In particular, we are indebted to Mr and Mrs V. Cooke, Mr and Mrs R. Cheetham, Messrs W.J. Fielding and W. Johnston, Mr and Mrs R. Price, Mr G. Pritchard, Mr and Mrs C.E. Searle, and Messrs R. Spinks and L. Williams.

Instruments used in the gathering of meteorological information were lent by the Commonwealth Bureau of Meteorology, Melbourne.

At the Australian National University, Drs D.G. Bettison and R.G. Crocombe conceived the original idea from which the study developed and gave advice in both its planning and execution. Mr G.R. Hogbin and Dr R.T. Shand also offered suggestions at various stages, while Dr H.C. Brookfield and Messrs E.K. Fisk and M. Rimoldi commented extensively on the drafts. Miss M. Rose wrote most of the computer programmes and Mr R. Watts also helped at a late stage; Mrs A.M. Johnson did much of the tabulating of data; Mr M. Pancino and other members of the Cartography Section drew the maps and diagrams, while Mrs A. Guenot typed the final draft, and in the process, reduced many of the tables to manageable proportions. Our debt to all these people is considerable for, in terms of the volume of data handled, the study was truly a co-operative effort.

554 councillor for the villages of Inonda, Ajoro, Hohota, Hosou and Seva. He is the senior resident member of the traditionally-dominant lineage and the trade store owner. He initiated the building of the copra-drier and takes the lead in most other new undertakings and at times of crisis or dispute, though his views are sometimes successfully opposed. In land matters he defers to or seeks the advice of the oldest male resident.

Economic holdings

241 The data on crop patterns and areas of subsistence gardens are presented with the data for 1962 given by Crocombe and Hogbin (1963:7-10). The figures for garden areas are not strictly comparable, since the 1964 data on garden areas, though not on crop numbers, were obtained by mapping from aerial photographs whereas the 1962 figures were calculated from the results of chain and compass surveys. This latter technique was used in 1964 for mapping the areas under taro and sweet potato. Other crop data were obtained by counts in the gardens. Information on holdings of economic trees and the inventories of household property were derived from interviews and were not checked on the ground, except for trees recently planted in the village surrounds.

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[592] Although the mean size of household is 3.9 people, two households contain only one adult. There is considerable flexibility in residence and in arrangements for making gardens. For instance, the mother of the wife of one household head came to settle in the household permanently in July 1964; she maintains her own garden, which was cleared by her son and her daughter's husband. Another household comprises a widower who makes his own gardens and has the highest cultivated area of any household; however, his eldest son's wife, in a separate household, does some of his harvesting and prepares most of his meals. The widower also makes gardens for the widow who heads household 18. This woman lived with her two youngest children until August, when her eldest son and his family (household 21) moved into her house on the new village site. Another garden was made on her behalf by her brother in another village. Household 24 comprised the parents of two sisters who had married Inonda men. At first, they lived with household 23 at the old site but moved in October to join household 21. They maintain their own gardens.

(a) Food gardens

At the beginning of February 1964, the nine Inonda households were cultivating 27 gardens, at a mean distance from the village of 0.5 hours' walking time. In December 1964 the eight households remained after the departure of the Jego'undi man had 29 gardens at a mean distance of 0.3 hours' walking time.

Chapter 6

Activity patterns: Sivepe

125

Introduction

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The Sivepe survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

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[164]

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(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

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[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

Chapter 7

Activity patterns: Inonda

Introduction

Records were kept of the daily activities of the 19 permanent adult residents of Inonda and of 2 young people (one aged 15 and the other 16) who spent periods of a few weeks in the village helping kinsmen. These 21 people were regarded as residents for a total of 3,230 man-days. Temporary absences of more than 24 hours duration amounted to 560 man-days and so the number of man-days considered below amounts to 2,670. Table 7:1 shows the number of man-days absent in each recording period and in total.

The number of effective working days in the village is further reduced by sickness. When suffering from major illnesses such as malaria and influenza, people generally stay in bed at home or at the aid post. Comperatively minor ailments such as skin infections, tropical ulcers and cuts are usually dealt with by brief visits to the aid post, mostly early in the morning before work. Such visits occupied almost 600 man-hours over the survey.

Table 7:2 shows the incidence of sickness when people were inactive in the village. Periods of sickness spent at the aid post or hospital are included under 'Absences' in Table 7:1.

Figure 7:1 illustrates the weekly incidence of man-days occupied by sickness while in the village and by absence. There are wide fluctuations in the incidence of both, but particularly the latter, which ranges from zero to 46 man-days. The peaks of absences occur mainly with feasts in distant villages and when several villagers are sick at the same time and stay at the aid post or with relatives. Sickness tends to be most common during the wet season (periods I and III).

During the 2,670 man-days resident in the village, the activities carried out by the sample occupied 16,620 hours or 6.2 hours per person per day.

by the eldest daughter's husband from his current earnings, and $0.20 worth by the husband of another of the host's daughters from his current earnings. The only other foods contributed were three bunches of bananas and sixteen lengths of sugar cane by the host and four bunches of betel nut and one bundle of betel pepper by the eldest daughter's husband and his son.

It is apparent that the men's traditional role of supplying fresh meat is being replaced by an obligation to supply store foods. In addition, informants confirmed that the range of men participating in the contributions had decreased markedly. The reason for the large donation of store foods and betel nut by the eldest daughter's husband was that as his family had all been killed and his property destroyed in the Mt Lamington eruption, he had not paid any bride-wealth at the time of his marriage.

A blackboard was displayed bearing a notice to the effect that all persons who were in receipt of wages were expected to contribute fifty cents and all others twenty cents. The host sat at the end of the food table and collected the cash (while a research assistant recorded the details of contributions and contributors). While most visitors expected as a matter of course to make some offering, they were not prepared for a fixed fee. There was therefore some delay and it was not until it was announced that those who did not have the full amount could contribute whatever they had that the people could be persuaded to make their contributions and partake of the food. Over half of those present had no money and consequently refrained from eating, though some close relatives who did not contribute were fed in the background. Several visitors privately expressed resentment at being asked for a money contribution.[1]

Contributions were received from 64 persons and ranged from eight cents to a dollar. Of a total of $12.15 received we were able to account for $10.88. Those who had brought food did not bring money with the exception of the labourers from the contractor's camp on whose behalf their employer had contributed a pig, and the husband of one of the host's daughters (who had given twenty cents worth of food) who gave ten cents in cash. Over half the money ($5.78) came from 31 persons who had no kinship ties with this village but were employees of European planters and of a contractor in the area or were indigenous settlers from a government resettlement scheme nearby. Of the balance, $2.10 was given by 15 relatives of the host from three different villages and

[1] The labourers and settlers had been specifically invited to attend, but I am not aware of the extent of invitations sent to other villages.

The supplementary food plants provide both variety in the diet and some insurance against failure of either of the two main crops. Corn matures within two or three months and can be planted amongst the taro if a food shortage appears to be imminent. Both wild and cultivated sago is used as an emergency food. There is usually a shortage of garden crops at the end of the dry season, and this is overcome by making sago. Sago is only eaten at other times when large quantities of food are needed for feasts.

The boundary of a food garden remains recognizable for about three years from the time of clearing. By then the garden is covered with either regrowth or kunai and is no longer producing food. All food gardens with recognizable boundaries were surveyed by chain and compass and the area of each garden calculated.(1) The date on which the vegetation had been cleared for the preparation of each garden was determined as nearly as possible. The average area of land required for food gardens for the village as a whole was found to be 12.76 acres or 0.27 acres per head of population per year.(2) Areas of subsistence gardens at present being cultivated or from which food is currently being harvested are summarized in Table 2.

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(1) Maps on a scale of one inch to one hundred feet were drawn. These have been reduced photographically and are reproduced on pages 106-108.

(2) This figure was calculated by the following method. For each household, areas of all gardens with recognizable boundaries were determined and totalled. The date at which the oldest of these gardens was established was determined for each household. From this information the area of garden land required per month was established for each household. (For example if the total area of gardens made by a household over 27 months is 5.4 acres, then that household makes new gardens at the rate of 0.20 acres per month or 2.40 acres per year.) The area of new garden land brought under cultivation each month by the village as a whole was then calculated by totalling the area required per month by each household, and multiplied by 12 to give the area required per year. This figure divided by the population of the village, gave the area of land required for gardening per head of population per year. The area of 0.27 acres of garden land per head of population per year should not be confused with the area of land which people were cultivating at the time of the survey. This latter area (0.31 acres) includes land cleared but not planted, land planted with gardens not in production and land from which garden produce was being harvested at the time the survey was made. It does not relate to any period of time, but gives an indication of the area of land which the households were actually tending at that particular time.

A [See Category 102, pp. 106-108--Analyst]

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became familiar with the full-time entrepreneur who earned his living by selling wares produced by others, by providing services such as transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

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The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past two generations most Orokaiva men have had some direct contact with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

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Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

Field work for this study was carried out in spare time during 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

101 114 126

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Nonconformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepa, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

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829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any of the others. He was the only one to have recognised that our [176] civilisation actually does have some moral values. I recorded stories [179] from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a 157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned serviceman's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

128
[114] We were fortunate in the extensive assistance and guidance which we received from Dr R.G. Crocombe in conducting the survey and at all stages in the preparation of the manuscript. Drs Bettison, Brookfield and Brown also read drafts of this report and we are grateful for their comments which we found valuable in revising the manuscript.

127 We wish also to acknowledge the co-operation of the Statistician, Bureau of Statistics, Papua, who made available the data from the Food and Agriculture Organization Survey, and of the trustees of the Mitchell Library, Sydney, who gave permission to quote from F.E. Williams' papers in their collection.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

[101]
[464]
[797]

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepe was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

Chapter 4

The cash economy

a. Income and expenditure[1]

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

Table 4

Inonda coffee production(1)

245
433
435

Year	Household No.	Weight (lbs. parchment coffee)	Price per lb.	Value
1960	1	242	1/2 and 1/3	£14.13. 4
	3	61(2)	" "	3.14. 4
	4	103(3)	" "	6. 3.11
	Total	406		24.11. 7
1961	1	246	1/-	12. 6. 0
	3	76	1/-	3.16. 0
	4	24	1/-	1. 4. 0
	Total	346		17. 6. 0
1962 (to Aug.)	1		1/-	6. 0. 0
	3		1/-	3. 0. 0
	4		1/-	4. 0. 0
-	Total			£13. 0. 0

[124]

(1) Details of sales were obtained from receipts issued to producers by the Orokaiva Coffee Growers Society (for sales in 1962) and by the Department of Agriculture (for sales in 1960-1). Information for 1960 and 1961 is probably complete (except for sales from household 4 for 1961). Figures for 1962 include producers' estimates of the value of coffee they harvested during the first eight months of the year.

(2) Part of this coffee was sold by the brother of the head of household 3.

(3) Part of this coffee was sold by the step-father of the head of household 4.

463 to be trading within their own village and twenty-six outside their
472 village.[1] In eighteen cases store location is not specified. The
366 only indication of success provided by the licence is the period of operation for each store. This index is not wholly reliable, because a store licence is sometimes renewed when the store is no longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 Labour. The Orokaiva commonly enlist the help of relatives to
472 establish and maintain cash crops. These relatives are rarely
476 regarded as paid labourers, and are compensated with random gifts of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
423 the Northern District of Papua in which land previously held under customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from official files. Where recorded information was not available,
124 estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During
122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Musu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

broader view of the social consequences of the eruption, and therefore included a third village, Hohorita, which lies at the centre of the area most deeply affected by the calamity. Sivepe, lying West of the volcano, escaped the full blast of the explosion; Inonda, to the East, was not directly affected at all, but Hohorita is a village made up of the survivors from Sangara villages situated in the blast area. Hohorita, as well as Kiorota which I visited briefly, has a far larger population than Orokaiva villages normally contain; these people were brought together, as a result of government organisation immediately after the eruption, from more than a dozen of the destroyed villages, comprise more than a dozen clans and constitute a new type of residential unit the origin of which may be directly traced to the eruption. Both Hohorita and Kiorota are situated on land owned by one of the constituent clans. With over 400 inhabitants, they face serious problems of factionalism. The government, which had an active hand in fostering them, had hoped they would solve basic problems of Orokaiva social fragmentation. In fact, one may almost say that the large consolidated village was a principal aim of government planning for the persons displaced by the eruption. Hence, it seems necessary to include consideration of this residential form in the present study.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CONTENTS

Acknowledgements ix

PART I. THE OROKAIVA EXCHANGE SYSTEM

Chapter *Page*

I. Introduction 3
II. The Setting 13
1. *Geography* 13
2. *Technology and Aesthetics* 18
3. *Economics* 27
4. *History* 33
5. *Field Locations* 40
III. The Ideology of Intertribal Exchange 47
1. *Experiences with the Exchange System* 47
2. *Folk Explanations of Exchange* 51
3. *Towards a Model of Exchange* 56
4. *The Starting Mechanism* 61
IV. The Exchange System and the New Age 66
1. *Cultural Changes* 66
2. *A New Starting Mechanism* 68
3. *New Exchange Cycles* 72
4. *The New Day, the Mission and Divine Retribution* 77

PART II. OBJECTS OF MEDIATION

V. Land 85
1. *Mediating Elements* 85
2. *Land and its Transfer: Transactions between the Sexes* 88
3. *Land Transactions between Men and Spirits* 92
4. *Transfer of Useholds between Agnates* 95
5. *Transfers of Land outside the Corporate Group* 100
6. *Case Study of Uterine Land Inheritance* 105
7. *Conclusion* 109
VI. Taro 111
1. *Introduction* 111
2. *Taro Ancestors* 114
3. *Taro as Mediator in Social Relations* 118
4. *A Survey of Taro Gifts* 124
5. *Clusters and Chains: Two Patterns of Intimacy* 129
6. *Structural Implications* 133

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

128

Page 138

VII. Pigs 138
1. *Introduction* 138
2. *The Wild Pig: Marauder* 139
3. *Domestication of Pigs: Husbandry* 141
4. *Wild Pigs as Victims* 143
5. *Domesticated Pig as Victim* 144
6. *Expiation and Communion in Feasting* 148
7. *A Model of Pig Sacrifice* 154

VIII. Coconut and Betelnut 161
1. *Theoretical Intermezzo* 161
2. *The Minor Foods: Objects of Mediation and Paired Symbols* 163
3. *Coconut as Object of Mediation* 164
4. Areca *as Object of Mediation* 165
5. *The Myth of Coconut and Betelnut* 167
6. *Analysis of the Myth* 172

IX. Ornaments 175
1. *Introduction* 175
2. *The Nature of Otohu Ornaments* 176
3. *Williams' Account of the Conferment of Otohu* 177
4. *Additional Data on Otohu* 179
5. *The Message of the Sacred Flutes* 183
6. Otohu *and* Hambo *compared* 184
7. *The Nature of Mediation* 186

PART III. EXCHANGE AND SOCIAL STRUCTURE

X. Marriage 191
1. *Introduction* 191
2. *Patrilineal Groups* 193
3. *Williams' Theory of Orokaiva Marriage* 197
4. *Elements of Restricted Exchange* 198
5. *Complementary Opposition in Village Topography* 200
6. *Kinship Terminology* 203
7. *Sex Affiliation* 207
8. *The Nature of Orokaiva Bridewealth* 209
9. *Application of the Model to Clan Formation* 211
10. *Conclusions* 213

XI. Epilogue 217

Bibliography 228

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLES

		Page
II/1.	Northern District: Population 1966	17
II/2.	Sivepe and Inonda: Population by age, sex, marital status and clan	17
II/3.	Food plants per household: Inonda and Sivepe compared	21
II/4.	Changes in house design, house construction and domestic amenities in Sivepe, 1936–66	24
II/5.	Sivepe: the division of labour by sex	28
II/6.	Division of labour between the sexes among the Orokaiva in 1923	30
II/7.	Acquisition of *hambo* and *di*: Sivepe and Inonda compared	31
II/8.	Enrolment in primary schools of the Anglican mission in the Northern District	37
II/9.	Revised estimates of Higaturu Local Government Council for July 1966–June 1967	38
II/10.	Education and occupational experience of the Jegase and Seho clans of Sivepe compared	39
II/11.	Hohorita male adults and skilled occupations	40
VI/1.	Sivepe: Taro transactions by household	127
VI/2	Sivepe: Taro transactions between preferential partners	130
VIII/1.	Areca transactions: Sivepe and Inonda	166
X/1.	Village populations and clan organisation	195

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MAPS AND FIGURES

128

		Page
1.	Popondetta Sub-District: generalised land classification	12
2.	Census map of Northern District	14
3.	Construction of a modern Orokaiva house	25
4.	Inonda village layout	41
5.	Layout of Hohorita village and mission station	42
6.	Village layout of old Sivepe	44
7.	*Colocasia esculenta* (taro)	111
8.	Taro gifts in Sivepe: sociogram of preferential partnerships	131
9.	Village layout of new Sivepe	202
10.	Sivepe and its neighbourhood	204

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ACKNOWLEDGEMENTS

This research was made possible through my appointment as an assistant to the Department of Anthropology at the University of Oregon. I was commissioned to write a report for a project directed by Professor H. G. Barnett, entitled 'A Comparative Study of Culture Change and Stability in Displaced Communities in the Pacific'. This commission enabled my wife and myself to visit the Northern District of Papua for one year. I also received help from the Canada Council and the Killam Foundation.

I should acknowledge here the contribution made to this research by my wife, Mrs. Ziska Schwimmer, who not only bore with it but made many valuable observations which have been incorporated in this work. Among others who were helpful, kind, encouraging and inspiring in the field I should mention: Dr. R. Crocombe, executive officer of the New Guinea Research Unit of the A.N.U.; Miss Nancy White, a missionary and collector of valuable Orokaiva texts; Mr. M. Lean, head teacher of the Sasembata mission school; Dr. A. Radford, director of the Saiho hospital; Mr. C. Searle, a planter of Awala; their wives; and many other individuals attached to the mission and the administration.

My Papuan interpreters, research assistants and chief informants were the following: Mr. Stephen Oriri of Inonda; Messrs. Harold Heru, John Douglas and Brian Orua of Hohorita; Messrs. Robert Nanisi and Leon Bhagi and Miss Patricia Jove, of Sivepe; the Rev. Albert McLaren of Sasembata mission station, and Mr. Walter Waki of Popondetta. I owe a very special debt to Mr. Cromwell Burau who stayed with me for three weeks and communicated to me some of his deep insight into Orokaiva culture: and to Samuel Jovareka, our Orokaiva father, of Sivepe.

I should like to thank also some of the scholars who, for better or for worse, have helped in the development of this work by their encouragement, criticism and information; in alphabetical order: Dr. Homer G. Barnett, Dr. Cyril S. Belshaw, Dr. Kenelm O. L. Burridge, Dr. A. Capell, Dr. Peter Carstens, Dr. Jan Pouwer and Mr. Adrian Tanner. Finally I would thank the Social Sciences Division, Scarborough College, University of Toronto, for excellent secretarial services.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

IV

The ethnography is divided into three parts. In the first part, after providing a brief general sketch of Orokaiva culture, I shall examine the 'starting mechanisms' of Orokaiva exchange cycles, both in traditional institutions (Ch. III) and in institutions developed since the British-Australian conquest (Ch. IV). The second part of the study is concerned chiefly with objects of mediation: land, taro, pigs, minor foods and ornaments (Chs. V–IX). In the third part the focus shifts to the relations between exchange partners mediated by the prestations analysed in the preceding chapters.

Although my presentation of Orokaiva social structure in this part of the work is not intended to be controversial, the focus differs from that of earlier ethnographies and here and there earlier findings had to be questioned in the light of fresh evidence. Orokaiva society contains several types of groupings (clan, local clan group, lineage, plant emblem group) whose members, according to informants, are recruited exclusively on the basis of agnatic descent. Earlier investigators have emphasised these patrilineal characteristics by equating the lineage and clan emblem group, proclaiming them both to be segments of local clan groups, and by treating the local clan group as something like a segment of a clan. My own analysis, however, will be concerned more with clan fusions and fissions, with irregular recruitment within the plant emblem group, and with the lack of evidence for agnatic connection between lineages and local clan groups. My evidence shows that the non-agnates recruited into these putatively agnatic groupings are mostly uterine kin. But above all I shall try to establish that these departures from the supposed agnatic norms are not cases of irregularity or deviance, but an integral part of the Orokaiva kinship system. I shall suggest that normally clans are not intrinsically agnatic but rather that they arose out of alliances between smaller groups whose original link was affinal. The effect of this argument is to show the narrow limits of range and scope within which Orokaiva patrilineal corporations operate, and thus to emphasise the importance of the exchange system as a principle of social structure.

As soon as we extend kinship analysis beyond the conjugal family, we observe that mediation is carried on not only through non-social objects used as gifts or prestations, but also through social objects used as intermediaries. Thus, in the relation between sister's son and mother's brother there is an intermediary who is mother of one of the partners and sister of the other. Similarly, the relation between two brothers-in-law is mediated by a woman who is wife of one and sister of the other. Men also often act as mediators between exchange partners when these are not linked by kinship, or when the exchange partners are female.

The principles of exchange are the same whether the objects of meditation be social or non-social. In both cases there are two partners, *ego* and *alter*, who establish or maintain a social relationship. The object of mediation, whether social or non-social, is so chosen that both *ego* and *alter* are – or become – closely identified with it. If *ego* and *alter* are male non-agnatic kinsmen, the mediator must be a woman: if they are female non-agnatic kinsmen, the mediator must be a man. In either case, the concept of an object of mediation implies that at the beginning of the transaction *ego* had some exclusive claim

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

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4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/1

SIVEPE: TARO TRANSACTIONS BY HOUSEHOLD

Household Code No.	*Total Transactions*	*Sent*	*Received*	*No. of Partners*	*Degree of Imbalance**
1	58	40	18	9	4
2	37	1	36	6	6
3	41	26	15	9	3
4	57	35	22	9	3
5	101	54	47	14	1
6	70	45	25	4	3
7	87	24	63	12	5
8	56	33	23	3	2
9	71	40	31	6	2
10	58	21	35	5	3
11	68	36	32	10	1
12	117	59	58	8	1
13	85	44	41	7	1
14	101	52	49	7	1
15	60	34	26	11	2
16	60	37	23	13	3
17	79	50	29	14	3
18	62	9	53	10	6
18a	48	37	11	10	6
19	81	54	27	9	4
20	84	46	38	12	1
21	82	41	41	8	0

* Code: 0 = larger donor gives exactly 50% of gifts;
1 = larger donor gives 50–55%; 2 = larger donor gives 55–60%;
3 = larger donor gives 60–65%; 4 = larger donor gives 65–70%;
5 = larger donor gives 70–75%; 6 = larger donor gives over 75%.

mediating element in the perpetuation of social relations. Within a village, social relations of some sort exist between almost all the members. In my enquiries in Sivepe I came across only one instance of two men, both resident in Sivepe, who denied having or ever having had social relations of any sort with each other. There may have been one or two more instances I did not detect, but they would be very rare. Social relations between households in a village may range from very distant (when no taro gifts are exchanged) to very intimate (when taro gifts may be made four or more times per week). Many households have social relations which are close but not intimate, symbolised by taro gifts made a few times per month. The frequency of taro gifts is of course not the only way of symbolising intimacy, though it is the sign I found the easiest to quantify. It was my impression that those households which maintained the most frequent informal association with one another were also those who made each other the most frequent taro gifts. These were the households who were deeply dependent

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *Clusters and Chains, Two Patterns of Intimacy*

How can taro gifts mediate close associations among larger groups than dyads of exchange partners? This involves a complex sociological problem that cannot be solved in the framework of the present study: why do men tend to give disproportionate attention to a very small number of their closest associates and much less attention to a larger group who are still close and trusted friends? A principle of allocation clearly operates here: intimate relationships demand more time and energy than can be devoted to the entire circle of close friends. But it is by no means clear what is the role of intimates as distinct from other valued friends. This hierarchy of association, whatever its explanation, is very evident among Orokaiva, not only in the way in which individuals spend their leisure time and compose their co-operative groups, but also in their allocation of taro gifts among their exchange partners.

In Sivepe the number of exchange partners maintained by a household varies from three to fourteen, with an average of 8.5. The first (i.e. most frequent) partner is involved in an average of 38 per cent of all taro transactions, the second partner in 24 per cent, the third in 12 per cent while the other partnerships account for only 26 per cent of all transactions. It is clear that the first and second partners are in a very privileged position in comparison with the others.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of interaction. My impressions, supported by the statistical data and some generalisations offered by informants, is that each household has a few preferential partners to whom it gives or from whom it receives taro at least twice a week, but often far more frequently. In this sense every household in my sample had at least two preferential partnerships. Ten households out of twenty-two had a third, five households a fourth and one (the Seho clan leader) had five preferential partnerships.

The data show that where households are linked by primary kinship, they mostly set up a 'preferential' taro partnership. Only 30 per cent of preferential partnerships, however, fall in this category. The rest can be accounted for only if land transactions, political considerations, and the total past history of personal relationships and transactions are taken into consideration.

For statistical reasons alone it would seem that preferential partnerships are worth some detailed investigation. They clearly add substantially to the number of intimates on whom an individual can count for support over and above those who can be depended on purely by virtue of membership of the same corporate group. In addition preferential partnerships are of crucial importance as a basis for close co-operation between sets of persons larger than the exchanging dyad.

In Fig. 8, all preferential partnerships in Sivepe are shown in sociographic form. A distinction has been made in the sociogram according to the extent to which social preference is mutual. Households A and B may be said to stand in a 'closest mutual relationship' (marked by a hard line), if B is a first or second partner to A and A is a first or second partner to B. If none, or only one of these conditions are satisfied, the relationship is shown by a wavy line.

Though a full analysis of taro gift patterns has to await separate publication,

[TEXT CONTINUED ON PAGE 131]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

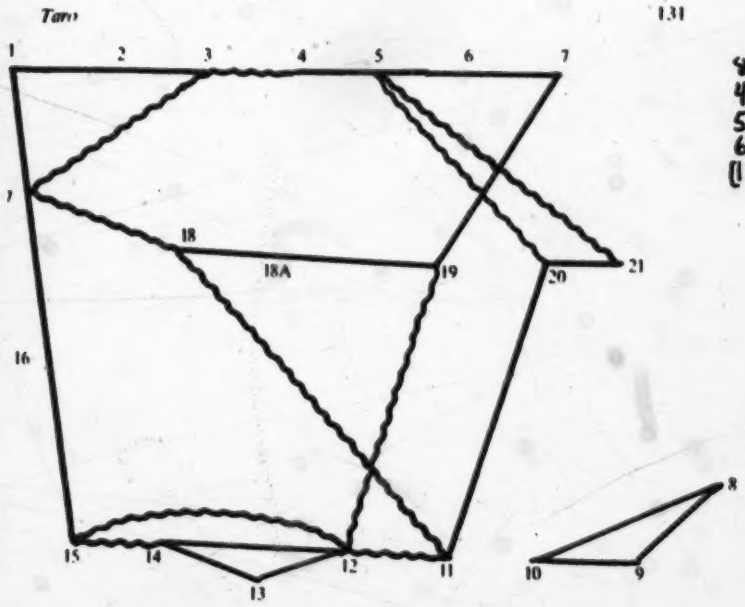


Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . , Hn) is defined as a set in which H2 has a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *arara*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

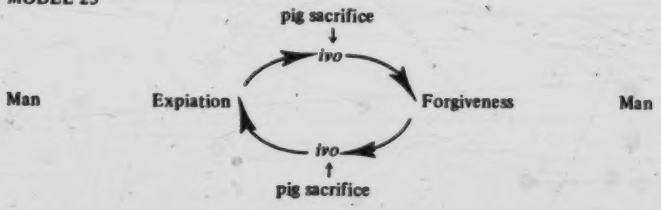
We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

1280

CONTENTS

	Page
Foreword	1
Origins of the system (1894 - 1918)	2
Native plantations as the mainstay of agricultural policy (1918 - 40)	4
The Native Plantations Ordinance	7
Acquisition of land	8
Planting under the ordinance	10
Production and income	16
Post-war community plantations	21
Community rice and cocoa projects	29
Conclusions	33
Appendices:	
A. Plantations established in the Northern District on Crown land set aside as Native Reserves under the Native Plantations Ordinance	37
B. Plantations established in the Northern District on native land under the Native Plantations Ordinance	41
C. A sample of community plantations established in the Northern District since 1947 (not related to the Native Plantations Ordinance)	43
D. Native Regulation No. 121 (providing for compulsory planting of economic trees)	44
E. Extracts from Native Plantations Ordinance 1925 - 34	46
F. The Orokaiva villager's experience of cash cropping	49
Bibliography	51
Map: Plantations established in the Northern District under the Native Plantations Ordinance	53

[p. v]

[p. vi is blank]

Foreword

We were aware before beginning this study that communal plantations in the Northern District had been a failure. The Research Unit is generally more interested in successful ventures than in unsuccessful ones and this is the only failed experiment to have been included in our current land study programme (which includes more than twenty sample studies in various parts of the country). The reason for this study was that detailed comparative studies were being undertaken with other approaches to cash cropping among the Orokaiva and a full comparison could not be made without the inclusion of the communal experiment. 121

For assistance in the field I am particularly grateful to Mr. Edric Eupu and Mr. Cromwell Burau as well as to the people of the many villages we visited in the course of the study. Mr. Max Rimoldi kindly assisted with research from early published reports. The co-operation and interest of the District Commissioner, Mr. L. Williams, and other officials, missionaries and settlers is acknowledged with gratitude. 128 [114]

7: Rimoldi et al. E,I-5 (1962-1963) 1966 QJ23 Orokaiva QJ23
Mountain Orokaiva
Sivepo

Contents

		Page
Foreword		1
Chapter 1.	Introduction	3
Chapter 2.	The subsistence economy	
	a. Climate and soils	13
	b. The cultivation cycle	14
	c. Hunting and fishing	21
	d. Livestock	22
	e. Economic trees	23
	f. Equipment	25
	g. Labour	25
Chapter 3.	Land tenure and social structure	
	a. The tribe and clan as territorial or political units	29
	b. The history of local settlement	39
	c. Localized descent groups	47
	d. Patterns of landholdings	62
	e. Land use and mobility	65
	f. Local organization and land transfers	71
Chapter 4.	The cash economy	
	a. Income and expenditure	76
	b. Employment	81
	c. Commercial agriculture	83
Chapter 5.	The land and economic development	
	a. Shifting cultivation and residential stability	94
	b. Developments related to land tenure	95
	c. Economic incentives	98

7: Rimoldi et al. E,I-5 (1962-1963) 1966 QJ23 Orokaiva QJ23
Mountain Orokaiva
Sivepe

128

Page

Appendices

A. The identification of 'the tribe' 104
B. The local co-operative venture 107
C. Monthly rainfall for Awala 1955-62 (inches) 109
D. Plant emblems 110
E. Cases of land transfers 111

Bibliography 118

Maps

1. Sivepe and environs 5
2. Sivepe landholdings and garden sites 40

Diagrams

Schema of major local migrations 1900-1950 44
A genealogy of the sample 52
Selected genealogy (i) 113
Selected genealogy (ii) 115

Tables

1. Food plants per household 17
2. Current garden areas 19
3. Rights to economic trees 25
4. Time patterns (6 weeks) 28
5. Rights to land currently cultivated by the sample 70
6. Income of 12 households 78
7. Expenditure by 12 households 79
8. Cash value and acquisition of hambo and di 80
9. Years spent in employment 81
10. Types of former employment of household heads 82

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepe village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 114 Work in the field was shared by Burau, Ferraris and Rimoldi. Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepe[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepe for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sohobata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

---

[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

128 [114] We were fortunate in the extensive assistance and guidance which we received from Dr R.G. Crocombe in conducting the survey and at all stages in the preparation of the manuscript. Drs Bettison, Brookfield and Brown also read drafts of this report and we are grateful for their comments which we found valuable in revising the manuscript.

127 We wish also to acknowledge the co-operation of the Statistician, Bureau of Statistics, Papua, who made available the data from the Food and Agriculture Organization Survey, and of the trustees of the Mitchell Library, Sydney, who gave permission to quote from F.E. Williams' papers in their collection.

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organization on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [12] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [65] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw, 1951. [2] See Crocombe, 1964:31.

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 [614] [619] This section outlines the range of wider common territorial interests and concerted political action among traditional groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case [266] sharply distinguished from the standard forms of hostility between [721] tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

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[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Norton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepo are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

62 All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a [103] locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinasusu or Korinaturu. [128] For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 All land constituting territory of the Jegase, Timumu or others [428] in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. [B]

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

Chapter 4

The cash economy

a. Income and expenditure[1]

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

128

Contents

		Page
Preface		xix
Abbreviations used		xxii
Note on data tabulations		xxii
	PART I INTRODUCTION	
Chapter 1	The physical and social setting	3
Chapter 2	Contact history and the development of cash cropping	13
Chapter 3	The village economy	23
Chapter 4	The two communities: Sivepe and Inonda	35
	PART II ACTIVITY PATTERNS	
Chapter 5	Organisation of work and labour availability in traditional societies	67
Chapter 6	Activity patterns: Sivepe	74
Chapter 7	Activity patterns: Inonda	128
Chapter 8	The two villages compared	169
	PART III EXCHANGE PATTERNS	
Chapter 9	The theory of reciprocal exchange and its implications for a market economy	179

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Page 128

Chapter 10 Exchange patterns: Sivepe 184

Chapter 11 Exchange patterns: Inonda 233

Chapter 12 The two villages compared 278

PART IV CONCLUSION

Chapter 13 Rural productivity and capital formation 287

Chapter 14 The dual economy: some implications 298

Postscript 306

Appendices

1 Sivepe and Inonda: characteristics of the samples 307

2 Sivepe and Inonda: adult male absentees, by location and employment, December 1964 308

3 Definitions of terms used 309

4 Standard weights and values used in the exchange data 313

Bibliography 314

Summary of contents 319

Figures

4:1 Sivepe: age-sex structure, showing net changes, January 1964 to January 1965 39

4:2 Inonda: age-sex structure, showing net changes, January 1964 to January 1965 55

5:1 Rainfall regime of Northern District and survey periods 73

6:1 Sivepe: potential working days and days lost through absence and sickness 75

6:2 Sivepe: the weekly pattern of activity - all activities and selected groups 80

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

1280

		Page
6:3	Sivepe: the weekly pattern of activity - selected subsistence activities	82
6:4	Awala: monthly precipitation, 1964	83
6:5	Sivepe: weekly precipitation	84
6:6	Sivepe: relation between activity time, age and cash cropping status, showing the line of average relationship between time and age	95
6:7	Sivepe: the distribution of total activity time, by sex	101
7:1	Inonda: potential working days and days occupied through absence and sickness	130
7:2	Inonda: the weekly pattern of activity - all activities and selected groups	133
7:3	Inonda: weekly work on cash-producing activities	134
10:1	Sivepe: labour service exchanges - non-monetary	188
10:2	Sivepe: weekly transactions of selected subsistence produce	193
10:3	Sivepe: weekly acquisitions of main storebought foods	198
10:4	Sivepe: weekly transactions of cash	199
11:1	Inonda: weekly acquisition of main subsistence products	241
11:2	Inonda: weekly disposals of main subsistence products	242
11:3	Inonda: the relationship between total cash income and expenditure and expenditure on food and stimulants, by household	252
11:4	Inonda: the relationships between total cash income and expenditure on all goods and services, by household	253
13:1	Sivepe: the technique of harvesting coffee - an example	290

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Tables

		Page
1:1	Popondetta sub-district: some rainfall characteristics	6
1:2	Popondetta sub-district: population in ethnic groups by location and occupation (1965 estimates)	7
1:3	Popondetta sub-district: demographic characteristics of selected census divisions, 1963	9
4:1	Sivepe: mean garden areas under cultivation, 1963 and 1964	42
4:2	Sivepe: food plants per household, 1963 and 1964	42
4:3	Sivepe: economic trees and livestock, 1964	44
4:4	Sivepe: participation in cash cropping, by household	46
4:5	Sivepe: monetary assets of households, January 1965	47
4:6	Sivepe: non-traditional household property, November 1964	48
4:7	Sivepe: household property derived from the subsistence sector, November 1964	49
4:8	Inonda: mean garden areas under cultivation, 1962 and 1964	57
4:9	Inonda: food plants per household, 1962 and 1964	57
4:10	Inonda: economic trees and livestock, 1964	58
4:11	Inonda: participation in cash cropping, by household	60
4:12	Inonda: monetary assets of households, November 1964	61
4:13	Inonda: non-traditional household property, November 1964	62

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

		Page
4:14	Inonda: household property derived from the subsistence sector	63
5:1	Activities covered by the survey and the categories to which they are allocated	68
6:1	Sivepe: nights absent from the village, by cause	76
6:2	Sivepe: nights absent from the village by cause and according to sex, age and cash cropping status	78
6:3	Sivepe: incidence of sickness according to sex, age and cash cropping status	79
6:4	Sivepe: mean time spent per man-week on all activities in each recording period	85
6:5	Sivepe: activity patterns of households over the whole survey period	97
6:6	Sivepe: contrasting activity patterns of cash cropping and non-cash cropping households	99
6:7	Sivepe: the division of labour, by sex	100
6:8	Sivepe: the division of labour, by age	104
6:9	Sivepe: the weekly pattern of activities	107
6:10	Sivepe: the mean duration and mid-point of activities	109
6:11	Sivepe: time spent on travelling as a percentage of total time spent on grouped activities	110
6:12	Sivepe: the allocation of time within activities	113
6:13	Sivepe: the mean size of work groups in productive activities	115
6:14	Sivepe: activity patterns of selected individuals	120
7:1	Inonda: days absent from village, by cause	129

128

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

128

		Page
7:2	Inonda: man-days occupied by sickness while in village	130
7:3	Inonda: mean time spent per man-week on all activities in each recording period	132
7:4	Inonda: adjusted mean weekly activity over survey period	138
7:5	Inonda: activity patterns of households over the whole survey period	142
7:6	Inonda: activity patterns of households (adjusted)	143
7:7	Inonda: days spent in sickness per man-month	146
7:8	Inonda: the division of labour, by sex	147
7:9	Inonda: the pattern of activity for each sex	148
7:10	Inonda: the weekly pattern of activities	150
7:11	Inonda: the mean duration and mid-point of activities	152
7:12	Inonda: time spent on travelling as a percentage of total time spent on grouped activities	154
7:13	Inonda: time spent travelling as a percentage of total on task	154
7:14	Inonda: the allocation of time within certain activities	156
7:15	Inonda: the mean size of work groups in productive activities	158
7:16	Inonda: activity patterns of selected individuals	163
8:1	Sivepe and Inonda: some contrasts in activity patterns	171
10:1	Sivepe: major items of non-monetary exchange over the whole survey period	186

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Page 128

10:2	Sivepe: major items of monetary exchange over the whole survey period	189
10:3	Sivepe: acquisition and disposal of cash over the whole survey period	191
10:4	Sivepe: mean weekly transactions of main subsistence produce during each recording period	194
10:5	Sivepe: mean weekly transactions of labour services during each recording period	195
10:6	Sivepe: the type and volume of labour services transacted during each recording period	196
10:7	Sivepe: mean weekly transactions of storebought goods during each recording period	198
10:8	Sivepe: mean weekly transactions of cash during each recording period	199
10:9	Sivepe: transactions of selected categories of goods and services, by household	200-1
10:10	Sivepe: cash income and expenditure over 46.5 weeks, by household	205
10:11	Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status	206
10:12	Sivepe: household expenditure on commodities over 46.5 weeks	208
10:13	Sivepe: exchange of goods and services, by sex	210
10:14	Sivepe: exchange of goods and services, by age	211
10:15	Sivepe: the circulation of goods and services by occupational category of partner	214
10:16	Sivepe: the geographical distribution of subsistence produce and labour service transactions	218
10:17	Sivepe: the major exchange relationships of selected individuals with their kin	222-6

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

		Page
10:18	Sivepe: the network of exchanges among kin	231
11:1	Inonda: major items of non-monetary exchange over the whole survey period	234
11:2	Inonda: major items of monetary exchange over the whole survey period	237
11:3	Inonda: acquisition and disposal of cash over the whole survey period	238
11:4	Inonda: mean weekly transactions of main subsistence produce during each recording period	239
11:5	Inonda: mean weekly transactions of storebought goods during each recording period	240
11:6	Inonda: mean weekly transactions of labour services during each recording period	243
11:7	Inonda: mean weekly transactions of cash during each recording period	244
11:8	Inonda: transactions of main categories of subsistence produce and services, by household	246
11:9	Inonda: transactions of cash and main categories of storebought goods, by household	247
11:10	Inonda: household expenditure patterns during each recording period	249
11:11	Inonda: household expenditure on commodities over the whole survey period	250
11:12	Inonda: cash income during the whole survey period and rank of households	254
11:13	Inonda: cash income and expenditure over 47 weeks, by household	255
11:14	Inonda: patterns of income and expenditure over 47 weeks, by cash cropping status	259
11:15	Inonda: the type and volume of labour services transacted during each recording period	261

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

11:16 Inonda: labour service transactions with non-residents 263

11:17 Inonda: exchange of goods and services, by sex 265

11:18 Inonda: the circulation of goods and services by occupational category of partner 268

11:19 Inonda: places of origin of main subsistence products acquired by the sample 270

11:20 Inonda: destinations of main subsistence products disposed by the sample 271

11:21 Inonda: the geographical distribution of labour service transactions 273

11:22 Inonda: places of origin of main storebought goods acquired by the sample 274

11:23 Inonda: destinations of main storebought goods disposed by the sample 275

11:24 Inonda: the geographical distribution of monetary transactions 276

12:1 Sivepe and Inonda: the volume of transactions per man-week compared 281

13:1 Some returns to labour from established cash crops 292

13:2 Some returns to labour from cash-producing activities other than cash cropping 293

13:3 Sivepe: mean size of individual cash acquisitions from major sources 296

Plates

1 Sivepe - a 'line' village located in a forest clearing adjacent to the Sohu river and a minor vehicular road linking Sasembata and Awala. (Vertical photograph, scale 1:2200) 36

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Page 128

2	Inonda - the new village situated close to the grassland/forest boundary. The main Popondetta-Oro Bay road runs between the village and the Girua river. (Vertical photograph, scale 1:4200)	51
3	Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.	87
4	Sivepe - women are responsible for keeping the central area free from weeds and refuse, as a part of 'Council work'	87
5	Men are responsible for the initial clearing of a new garden site. Boys acquire the appropriate skills by assisting their elders.	103
6	Women are responsible for the final preparation of the garden site prior to planting. Here, following an initial burn, the debris is being piled around the tree stumps and larger timbers to burn them a second time	103
7	Women spend many hours making string bags.	135
8	Men from Inonda and Mosou villages repairing a large fishing net preparatory to an all-night fishing expedition	135
9	The chapel constructed on the new Inonda site. The material in the foreground has been set aside for the construction of an Administration rest-house. Note the preponderance of non-traditional materials - gathered from military dumps	137
10	Erecting the copra-drier at Inonda - a communal effort.	137
11	Taro, pigmeat, areca, rice and tinned fish on display in Inonda prior to presentation to a Girua settler.	280
12	Stalls at Popondetta market, where people from Inonda frequently sell their produce.	280

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

13 Pulping coffee in the creek at Sivepe 291

14 Collecting latex in the communal rubber plantation at Sivepe. Most of the mature trees are badly scarred by incorrect tapping 291

Maps

1 Popondetta sub-district: generalised land classification 4

2 Popondetta sub-district: external agencies 8

3 Sivepe and its neighbourhood 34

4 Sivepe: village layout 38

5 Inonda and its neighbourhood 52

6 Inonda: village layout 54

[p. xviii is blank]

xx

interviews, expressed opinions, and other relevant data. Daily meteorological observations were made in Sivepe village.

The survey was conducted over three separate periods during 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November to 3 January. These periods were selected, on the basis of available rainfall data and information in earlier Northern District studies, to cover supposed seasonal variations in weather and hence variations in the intensity of different social and economic activities.[2] Due to the intensive nature of the enquiry, it proved difficult to extend day-to-day investigation beyond two months.

In addition, the researchers spent some time in the Northern District and Port Moresby collecting demographic and economic statistics, information on marketing facilities and the policies and activities of the external agencies operating in Popondetta sub-district. This information was designed to place the selected villages in a regional perspective.

The gathering of field data was shared equally between the authors, with Waddell working in Sivepe village and Krinks in Inonda; each is therefore responsible for the sections specifically dealing with his respective village. Joint responsibility is assumed for Part I but the preambles and discussions in Parts II and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

The study was made possible by a generous grant from the Rural Credits Fund of the Reserve Bank of Australia. In the execution of it the authors owe their principal debt to the residents of Sivepe and Inonda villages for their patience and co-operation over a period of more than seven months when they were exposed to often seemingly indiscreet daily observation and questioning. Vivid memories are retained of their hospitality and friendship. Amongst them Mr Stephen Oriri was pre-eminent. The important role played by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and Nigel Tiriembo, must also be acknowledged.

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1 In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

2 It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Many expatriate residents of Papua-New Guinea - public servants, missionaries and settlers - gave freely of their experience and provided practical assistance and hospitality. In particular, we are indebted to Mr and Mrs V. Cooke, Mr and Mrs R. Cheetham, Messrs W.J. Fielding and W. Johnston, Mr and Mrs R. Price, Mr G. Pritchard, Mr and Mrs C.E. Searle, and Messrs R. Spinks and L. Williams. 128

Instruments used in the gathering of meteorological information were lent by the Commonwealth Bureau of Meteorology, Melbourne. [12C]

At the Australian National University, Drs D.G. Bettison and R.G. Crocombe conceived the original idea from which the study developed and gave advice in both its planning and execution. Mr G.R. Hogbin and Dr R.T. Shand also offered suggestions at various stages, while Dr H.C. Brookfield and Messrs E.K. Fisk and M. Rimoldi commented extensively on the drafts. Miss M. Rose wrote most of the computer programmes and Mr R. Watts also helped at a late stage; Mrs A.M. Johnson did much of the tabulating of data; Mr M. Pancino and other members of the Cartography Section drew the maps and diagrams, while Mrs A. Guenot typed the final draft, and in the process, reduced many of the tables to manageable proportions. Our debt to all these people is considerable for, in terms of the volume of data handled, the study was truly a co-operative effort.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

128

Abbreviations

CSIRO	Commonwealth Scientific and Industrial Research Organisation
DASF	Department of Agriculture, Stock and Fisheries
DDA	Department of District Administration
FAO	Food and Agriculture Organisation
IBRD	International Bank for Reconstruction and Development
LGC	Local Government Council
OCGS	Orokaiva Coffee Growers' Society
PWD	Public Works Department

Note on data tabulations

Wherever discrepancies occur between the total and sum of figures in a column these are due either to rounding or the fact that all the data are expressed in terms of mean hours or mean transactions (per man-day or per man-week), in which case the total means are not derived directly from the individual means.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Chapter 1

The physical and social setting

This chapter summarises the physical and social background to current attitudes to cash cropping among the Orokaiva. 128

The physical environment

(a) Landforms (see Map 1)

Lying between the main New Guinea cordillera and the Pacific Ocean, the Popondetta sub-district[1] has a great variety of landforms and soils and, to a lesser extent, of vegetation.[2] Bounded on the south-west by the foothills of the Owen Stanley Range (4,000 ft) and on the south by Mt Lamington[3] and the Hydrographers Range (4,000 to 5,000 ft), the area comprises a broad plain sloping gently north-eastwards to the Pacific Ocean. Three elements may be distinguished within it: strongly dissected piedmont terraces, alluvial plains of volcanic materials (to the north-east of Mt Lamington) and flood plains from 10 to 25 miles wide extending from the terraces to the coast. All characteristically support primary or regrowth lowland forest except in the relatively drier and sandy areas, particularly on the plains north-east of Mt Lamington, where there are extensive stretches of grassland. 131 133 133 [137]

The CSIRO (Division of Land Research) considers (1964:17) that although there is more poor than good land in this area, 'some of the best land in the Territory' occurs on the gentle northern foot slopes of Mt Lamington and in parts of the flood plains where fertile volcanic soils and stratified sediments with a high organic content have developed. The major factors limiting land use are steepness of slopes in the mountain zone, and poor drainage and flooding in the lowlands. Soil deficiencies do not appear to be a serious limiting factor. 311 133

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[1] An area of 3,712 square miles.

[2] The following description is derived from CSIRO 1964:10-15.

[3] A volcano which last erupted in 1951, resulting in extensive destruction and loss of life.

Chapter 3

The village economy

This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Siveps and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

(a) The subsistence sector

(1) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic 871 servants and labourers for the Australasian Petroleum Company). The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[599] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[554] [3] See Appendix 1.A [4] See Rimoldi 1966:55-6.

[5] One man, adopted into Timunu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A, [See Category 871, p. 307--Analyst]

121

would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

125

The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself while, at Sivepe, logistical considerations prevented more than 30 to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

[124]
[123]

128

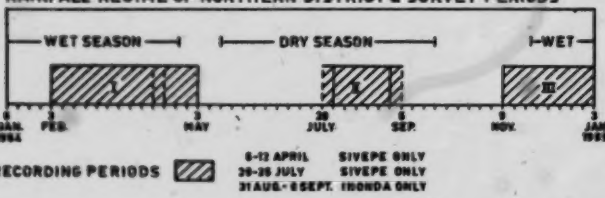
Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a way as to cover expected seasonal variations in activity patterns (see Fig.3:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

[1] Twenty-six in the case of Inonda.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

FIGURE 5:1

RAINFALL REGIME OF NORTHERN DISTRICT & SURVEY PERIODS



On account of periodic variations in the size of the samples and so in the number of man-days covered in each survey week (due to permanent arrivals and departures plus temporary absences), activities performed are everywhere expressed in terms of 'hours per man-day' and 'per man-week' actually resident, residence being defined as including time spent sick. This conversion of all data from totals to means obscures the distinction between activities occurring regularly, such as subsistence gardening, and those which occur only sporadically, for example, house construction, particularly where the latter are characterised by short periods of intensive work. However, the conversion does permit realistic estimates to be made of the labour requirements of different tasks over extended periods.

All the data, with the exception of those involving absences in excess of twenty-four hours from the village and periods incapacitated through sickness, were recorded on punch cards and processed by computer. However, in the case of absences and sickness the data were of a more imprecise nature and only simple manual analyses were carried out.

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

[224]

[476] Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

The activity patterns of selected individuals

128 The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 36 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village.

[1] See p.292. A 4

A, [See Category 433, p. 292--Analyst]

monetary exchange system in a single society and of the society's social system to the processes of commercialisation. 121

Method adopted

The approach adopted to the analysis of exchange is similar to that of activity patterns, with parallel observations being made on the same sample.[1] To simplify quantification and accurately determine the place of individual households within the exchange system, the basic unit of measurement adopted is the transaction rather than the good or service, the act of giving or receiving being identified as such. Thus, in the case of goods or services exchanged between two members of the sample, each is recorded twice - against the donor and the recipient. While most goods entering the exchange system are only transacted a single time prior to consumption certain items, particularly pigmeat, may change hands a number of times, with some subdivision on each occasion. Therefore the sum of transactions does not necessarily reflect the sum of goods and services exchanged by the sample as a whole but rather that of the sum of its individual members grouped into households.[2]

Five broad categories of goods and services are identified - subsistence produce, cash crops, labour services, storebought goods and cash - but the distinctive nature of each precludes the application of a single system of measurement. Instead three are used - weight (in lbs) for subsistence produce, time (in hours) for labour services, and monetary value (in $) for the others - and each category is discussed separately.

Further, on account of the part-subsistence part-commercial nature of the village economy, transactions fall into two broad systems - subsistence and monetary - within which both the ideal and actual form of exchange is often radically different. Thus, initially, the data are presented in such a way as to demonstrate the total volume of transactions falling within each system; thereafter the two are amalgamated and the seasonal fluctuations in exchanges, together with the area over which they operate and their relationship to kin and to the several socio-economic groups identified, are considered. Finally the exchange patterns of individual households are discussed, to include data on income and expenditure of cash during the eleven months within which the detailed surveys fell (February 1964 to January 1965). 128

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[1] In fact this survey only commenced in week 2 - at the beginning of the week in Inonda and mid-way through in Sivepe.

[2] Although all transactions are related to individuals, intra-household ones are disregarded. In effect, therefore, the 'minimum transacting unit' is the household.

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

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[1] This figure was determined by using yield data gathered in Sivepe during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

Appendix 3

Definitions of terms used

128 Individual activities

Church services	All forms of religious services.
Church work	Work carried out voluntarily for the mission.
Clearing	All activities associated with the preparation of land for planting; e.g. the selection of a site, cutting down trees, undergrowth and grass, burning and piling up burned debris..
Construction	The collection of materials for and the erection, maintenance and demolition of village houses and shelters.
Cooking	The preparation of food for consumption, including the making and tending of the fire on which it is cooked.
Council work	Cleaning the village site, cutting grass on the surrounds, maintaining roads, constructing rest houses, schools, aid posts, bridges. Attending council meetings and making tax payments.
Entrepreneurial	Activities undertaken to make money through the provision of services to others, e.g. a trade store, copra drier or coffee huller where others pay for the facilities or services. Includes the purchasing of trade store supplies.
Fencing	The collection of materials for, making and maintaining fences.
Gathering	The collection of foodstuffs by foraging, both insect grubs and vegetables.
Harvesting	The collection of all cultivated foods.

128

Maintenance	Weeding, pruning and cutting undergrowth around cultivated foods, and including garden 'inspections'.
Marketing	The sale of produce for cash, at a market, by hawking or informally.
Meetings	All formal gatherings, either sponsored by the external agencies (census-taking, court cases, political meetings, Mothers' Union, Women's Club, OCGS, Oro Ltd) or organised within the village to settle disputes.
Miscellaneous	Clearing the new village site, errands, gambling and any other minor activities unrelated to the listed categories of activity.
Mourning	Refers strictly to the mortuary ceremonies conducted prior to the burial and not to any protracted periods of seclusion involving the immediate kin of the deceased.
Paid work	All types of employment, regular or casual, characterised by direct cash remuneration, e.g. the construction of buildings under contract, road labour and acting as an Administration interpreter.
Preparation of tools and equipment	The collection of materials for and fabrication of tools used in hunting and gardening (spears, axe handles, etc.), mats and baskets and articles of a ceremonial nature (e.g. feather head-dresses, etc.).
Processing	All stages of the preparation of coffee and copra for sale following their harvesting; therefore the pulping, fermenting, washing and drying of coffee and the splitting and drying of coconuts for copra.
Recreation	The participation in or observing of such sporting activities as football, and picnics.
Sago-making	All stages of the preparation of sago from the felling of the tree to the drying of the sago flour.
Sickness	The manual analyses deal with time immobilised through sickness while the detailed survey

128

refers specifically to clinic visits and related public health activities only.

Grouped activities

External agencies	All those organisations associated with the external sector of the economy, therefore encompassing purchasing, church services and work, council and meetings.
Household	Encompasses collecting firewood, cooking and washing clothes, pots and dishes, etc.
Other subsistence activities	Encompasses the preparation of tools and equipment, construction.
Other subsistence food production	Encompasses fishing, hunting, gathering and sago-making.
Social obligations	Encompasses marriage, mourning (death), other ceremonial (e.g. feasts, parties) and informal visiting.
Subsistence gardening	Encompasses the planting, maintaining, harvesting and marketing of all cultivated food crops together with the fencing of the gardens.

Activity terms relating only to Chapters 6 and 7

Ancillary tasks	Relating to the main activity, e.g. sharpening tools, carrying out garden magic, erecting and repairing sluice in sago-making.
Main task	The named activity.
Other tasks	Unrelated tasks carried out generally as a product of the opportunity provided by the main activity, e.g. foraging or collecting firewood incidental to doing other garden work.
Travelling	The movement between village and location of activity.

Exchanges

Gift exchange	A non-monetary exchange conducted according to the customary pattern and normally characterised

128

by reciprocation, either immediate or delayed, of goods or a service to an equivalent value. Such exchanges are normally restricted to kin.

Monetary exchange — A cash-based transaction where there is a direct and immediate exchange of goods or services against money.

Transaction — The act of receiving or giving goods or a service.

Various

Cash cropper — A member of a household which is directly exploiting cash crop holdings, either individual or communal.

Man-day, man-week, etc. — A unit of measure derived from the sum of the periods of residence of all adult persons, exclusive of all absences, temporary or otherwise.

Note. The terms 'dry season', 'earlier part of the wet season' and 'latter part of the wet season' are used interchangeably with survey periods II, III and I respectively.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Summary of contents

Page 128

PART I INTRODUCTION

Chapter 1 The physical and social setting 3

The physical environment 3

(a) Landforms 3
Major elements; potential value

(b) Climate 5
Seasonality and the rhythm of economic life

The social setting 7

(a) Population and settlement 7
Ethnic composition; density; the village - size and lineage composition

(b) Social organisation 10

(i) Descent 10
Recruitment; localisation

(ii) Leadership 10
'Big men'

(iii) Residence 10
The ideal and the practice

(iv) Rights to land 11
Distribution of rights at the various levels in the segmentary system; the transmission of rights; the pattern of exploitation of land; rights to tree crops and their implications for cash cropping

Chapter 2 Contact history and the development of cash cropping 13

(a) Initial contact 13
Resistance, punitive expeditions and early cargo-cults - the origins of anti-European sentiments; changes in building styles and settlement pattern

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Page 128

(b) Commencement of cash cropping 14
Community plantations and compulsory participation; diverse crops and inadequate returns

(c) War and natural disaster 15
World War II and the eruption of Mount Lamington - carrying, collaboration, death, destruction and divine punishment

(d) Activities of the Anglican mission 16
'Go preach, teach, baptise'; the Christian Co-operative Movement

(e) Recent developments in commercial agriculture 18
A new approach to the exploitation of the communal rubber plantations; upsurge of indigenous interest in cash cropping; accelerated development since the 1950s; novel tenurial and marketing schemes and a trend to individual holdings

(f) Conclusions 20
Low level of Orokaiva involvement in the commercial economy, explicable in terms of labour shortages, psychological and technological consequences of the disasters, and the lack of coordination between the Anglican mission and the Administration

Chapter 3 The village economy 23
Traditional subsistence to contemporary dualism

(a) The subsistence sector 23

(i) Production 23
Bush fallowing; household the principal economic unit; holdings, crops and subsidiary activities

(ii) Exchange 25
Types and function

(b) The cash sector 27
Sources of cash:

(i) Cash cropping 27
Crops, size of holdings and cultivation and processing techniques

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

(ii) Marketing 29
Informal and formal markets, goods handled

(iii) Wage employment 30
Types available and preferences

(iv) Remittances 31
Sources and nature

(v) Other sources of income 31
Trade stores and gambling

(vi) The use of cash 32
Settlement of obligations, direct consumption and capital savings; the lack of investment in large capital equipment

Chapter 4 The two communities: Sivepe and Inonda 35

Sivepe 35
Location; demographic characteristics

Economic holdings 40

(a) Food gardens 41
Size and contents; changes since Rimoldi's survey

(b) Economic trees and livestock 43
Size of holdings

(c) Cash crop gardens 44
Size of holdings; recent developments, forms of individual participation in cash cropping

(d) Monetary assets 45
Size and nature of individual holdings

(e) Other household property 49
Inventories of 'non-traditional property' and 'property derived from the subsistence sector'

Inonda 50
Location; demographic characteristics

Economic holdings 56

(a) Food gardens 56
Size and contents; changes since Crocombe and Hogbin's survey

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

128

Page

(b) Economic trees and livestock 58
Size of holdings; recent developments

(c) Cash crop gardens 59
Size of holdings; commencement of copra production and other recent developments

(d) Monetary and other assets 61
Size and nature of individual holdings; the trade store

(e) Other household property 61
Inventories of 'non-traditional property' and 'property derived from the subsistence sector'; contrasts with Sivepe; consequences of the main technological changes

PART II ACTIVITY PATTERNS

Chapter 5 Organisation of work and labour availability in traditional societies 67
The nature and scope of work studies; production and labour an integral part of a broader system - 'a pattern for living'; Fisk's hypothesis of the potential surplus of labour - some questionable assumptions; Salisbury's thesis of technological change as additional evidence for labour availability; Udy and the suitability of work organisation in subsistence agriculture for grafting on commercial activities

Method adopted 72
Duration of survey, scope of data collected, and mode of analysis

Chapter 6 Activity patterns: Sivepe 74

Introduction 74
Available labour time, less temporary absences and sickness

(a) Temporary absences 74
Causes; people involved

(b) Sickness 77
Absent from and within the village; people involved and causes

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

Patterns of activity and seasonal influences 79
The mean activity week, and variations in both its length and breakdown
The component activities:

(a) The subsistence sector 81

(i) Food production 81
Gardening dominant; hunting and sago-making; distinct seasonal patterns

(ii) Seasonality and the pattern of subsistence food production 88
A predetermined cycle of activities

(iii) Marketing of subsistence produce 88
Low prices, no systematic production

(iv) Other subsistence activities 88
Production of tools and equipment; house construction and repair, household tasks; the sum of productive work; the slight importance of non-productive tasks - social obligations

(b) The external sector 91

(i) Cash cropping 91
Coffee and rubber

(ii) Paid work 92
As important as cash cropping; popularity of contract work

(iii) Other activities 93
The pre-eminence of non-productive activities in the external sector, particularly church activities, meetings and council work; the absolute insignificance of cash-producing activities

The organisation of work by households 94
Substantial variations in both levels of activity and allocation of time, explained in terms of individual circumstances rather than degrees of specialisation; general relationship between age of household head and level of activity

The division of labour 99

(i) By sex 99
Women concentrate on subsistence gardening and household tasks, men

distribute their time through a broader range of activities - reflecting the formal authority structure in the household; few important tasks exclusively the concern of one sex

(ii) By age 102
Variations reflecting both the customarily-defined responsibilities of the several age groups and their diverging interests in the contact situation

The weekly pattern, daily routine and duration of activities 105

(i) The weekly pattern 106
Basic tasks sustained throughout the week, but others tend to be specific to certain days

(ii) The daily routine and duration of activities 108
Variations in the duration of activities, in the number undertaken within a single day and in the times at which they occur; special characteristics associated with the occurrence and duration of cash-producing activities

The allocation of time within individual activities 108
Travelling as a major component of activity time; detailed time and motion studies; differences in the performances of non-cash and cash croppers

The nature and size of work groups 114
Household the basic unit of production; specific considerations apply in the few tasks where the mean size of the work group exceeds two persons

The activity patterns of selected individuals 117
Six people representing a range of 'types':

Linton: an industrious, highly respected male householder 117

128

Page

Palminus: an active male householder and member of the 'new' generation 121
Gorukari: a woman with a large family 122
Olga: an elderly woman, most of whose children are married 123
Rodney Gill: an eighteen year old boy 124
Umbahapa: an old, widowed man 126

Chapter 7 Activity patterns: Inonda 128

Introduction 128
Available labour time, less temporary absences and sickness

Patterns of activity and seasonal influences 131
The mean activity week, and variations in both its length and breakdown
The component activities:

(a) The subsistence sector 131

(i) Food production 131
Gardening dominant; sago-making, foraging and hunting seasonally important

(ii) Other subsistence activities 136
Production of tools and equipment; construction (houses, copra-drier and trade store); household tasks - adjustments made to the data

(b) The external sector 138

(i) Cash cropping 138
Coffee; initial attempts at copra production

(ii) Other activities 139
The external agencies; purchasing; social obligations

The organisation of work by households 141
Slight range in total activity time but considerable differences in its allocation; implications of full-time wage employment for subsistence production; distinctions between non-cash and cash croppers

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

The division of labour: the influence of sex 146
Men perform most of the heavier tasks, cash cropping and activities related to the external agencies; particular importance of paid work for them

The weekly pattern of activities 149
'Ideal' and actual pattern; periodicity characteristic of certain activities associated with both sectors

The duration of activities 151
Varying durations and mid-points of activities

The journey to work 153
Time spent in travelling, and implications of the transfer of the village to a new site

The performance of individual tasks 155
Detailed time and motion studies

The nature and size of work groups 157
Only a few activities involve collaboration between individuals, and most of these are non-traditional

The activity patterns of selected individuals 159
Six people representing a range of 'types':

Isemba: a young, unmarried man 159
Lawrence: the entrepreneur 161
Marjorie: a young, educated housewife with one child 162
Paulus: a young, married man without cash crops 164
Mamoko: an aged widower 166
Embogi: an elderly widow supporting two children 167

Chapter 8 The two villages compared 169

(a) Levels of activity in relation to available resources 169
More time required to achieve subsistence at Inonda because of the longer 'journey to work' than at Sivepo; much higher land

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

requirements and a more diversified economy at Inonda; the labour cost of relocating Inonda; differing opportunities for paid work

(b) The relationship of subsistence to the external sector and the availability of surplus labour 172
An essentially tradition-oriented economy; reasons for changing subsistence patterns; similar attitudes towards cash and subsistence crops; the failure of communal ventures; the apparent choice between subsistence production plus peripheral commercial activities and migration out in search of full-time employment; the nature of the labour surplus

PART III EXCHANGE PATTERNS

Chapter 9 The theory of reciprocal exchange and its implications for a market economy 179
Polanyi's 'transactional modes'; Orokaiva morality; types of prestations in the traditional society; the social context of exchanges; differences between traditional and monetary systems and the belief that the former inhibit commercialisation; aim of the analysis

Method adopted 183
Concepts, categories identified, and mode of analysis

Chapter 10 Exchange patterns: Sivepa 184

The nature and volume of transactions 184
Transacting frequencies
Analysis by exchange system and category or service:

(a) Non-monetary sector 184

(i) Subsistence produce 184
Foodstuffs predominant; amounts of total production entering into the distributive system

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Page 128

(ii) Labour services 187
Proportion of total activity time rendered as labour services; range of activities over which services are exchanged

(iii) Storebought goods 187
Acquisitions predominate

(b) Monetary sector 190

(i) Subsistence produce 190
Volume, circumstances and types of produce

(ii) Labour services 190
Two instances only

(iii) Cash crops 190
Coffee and rubber

(iv) Storebought goods 191
Relative importance of different types account for most of monetary acquisitions

(c) Cash 191
Acquisition and disposal rates; role of the two economic systems

Seasonal variations in exchange patterns 192

(i) Subsistence produce 192
Three temporal patterns of availability - continual, seasonal and periodic

(ii) Labour services 195
Primarily in dry season on account of sago-making

(iii) Cash crops 196
Different patterns for coffee and rubber

(iv) Storebought goods 197
Both seasonal and periodic elements apparent, according to the source of the goods

(v) Cash 199
Substantial fluctuations from week to week

The exchange patterns of households 202
Variations in both volume and variety, in relation to differences in the resource

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Page 128

base of each; differences between non-cash and cash croppers

Income and expenditure of cash over 46.5 weeks 203
Detailed analysis of income and expenditure patterns, demonstrating both the general level and nature of commitment to the external sector of the economy and the substantial differences between non-cash and cash croppers; importance of remittances, irregularity of income

The pattern of exchanges in relation to the sex and age of sample members 209

(i) By sex 209
Specific responsibilities of men and women

(ii) By age 210
Flow of goods and services largely regulated by 'middle' age groups, but specific resources associated with each

The relationships between exchange and the socio-economic status of transacting partners 212
The movement of goods and services between subsistence villagers, settlers, wage earners within the District, wage earners outside the District, and organisations

The geographical dimensions of exchange 216
The range over which transactions of subsistence produce and labour services occur

The network of exchanges among kin 219
The exchange networks of the six selected individuals among their kindred; three main directions evident

Chapter 11 Exchange patterns: Inonda 233

The nature and volume of transactions 233
Analysis by exchange system and category of good or service:

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

	Page
(a) Non-monetary sector	233
(i) Subsistence produce Predominance of taro, pigmeat, sweet potato and banana; balancing of exchanges	233
(ii) Labour services Irregularities in the flow of services	235
(iii) Storebought goods Excess of acquisitions	235
(b) Monetary sector Subsistence produce, cash crops and storebought goods	236
(c) Cash Balancing of exchanges	238
Seasonal variations in the exchange patterns Implications of the amalgamation of the two exchange systems for the data	238
(i) Subsistence produce and storebought goods Weekly and seasonal variations both in specific goods and the general level of transactions; net flows in and out of the village	238
(ii) Labour services Pronounced seasonality	243
(iii) Cash Variations in association with the exploitation of chance opportunities	244
The exchange patterns of households	245
(a) The circulation of goods and services Little difference in transacting rates	245
(b) The expenditure of cash Variations in both the total value and character of expenditure patterns; priorities; status and the acquisition of cash	248
Income and expenditure of cash over 47 weeks Detailed analysis of patterns, by household and cash cropping status; the entrepreneur's operations; wide range of sources of income, but important role of the entrepreneur	254

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

128

Page

The exchange of labour services 260
Activities involved; the role of non-residents

The exchange of goods and services by sex 264
Specific responsibilities of men and women

The relationships between exchange and the socio-economic status of transacting partners 266
The movement of goods and services between subsistence villagers, settlers, wage earners within the District, wage earners outside the District, and organisations

The geographical dimensions of exchange 269
The range over which transactions occur

(i) Subsistence produce 269
Distinctive patterns for several goods

(ii) Labour services 272
Importance of extra-village exchanges

(iii) Storebought goods 272
Pattern determined primarily by the location of trade stores

(iv) Cash 276
Distinctive acquisition and disposal patterns

Chapter 12 The two villages compared 278

(a) The form and content of exchanges 278
Minor differences between the villages; exchange patterns and traditional concepts of morality; exchange and individual aggrandisement; level of transactions, available resources and socio-economic diversity of the neighbourhood; irregularity of income; excess of income over expenditure

(b) The commitment to cash 283
Place of money in the economy; importance of reciprocal exchanges; the need to achieve subsistence

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

332

PART IV CONCLUSION

Chapter 13 Rural productivity and capital formation 287
Limited development of cash cropping in spite of available land and labour; considerations - transport, level of productivity in relation to skills and delegation of responsibility, returns to labour from cash crops and other cash-producing activities; preferred means for the acquisition of cash considered in terms of reliability of income and size of individual payments; capital saving

Chapter 14 The dual economy: some implications 298
Level of involvement in the external economy; consequences of the juxtaposition of two cropping systems in single units of production; Orokaiva still consciously seeking the 'road' to prosperity; need for a reappraisal of the whole village economy

Summary of conclusions 300

Postscript 306

Preface

125 In this study, carried out between February and April 1963,
[101] seven groups of adult male Orokaiva were tested using a culture-fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

[p.4 is blank]

Table 3

153 Means and standard deviations of the test data and rank order of mean test results

Village or sample	Mean	Standard deviation	Rank order
Beporo	33.85	8.83	1
Ex-servicemen settlers	27.40	10.13	2
Borugasusu	23.95	7.76	3
Inonda	22.55	10.23	4
Plantation labourers	21.95	9.14	5
Sivepe	20.50	10.24	6
Ongoho	16.25	7.97	7

153 The inter-correlations of all test scores, age and educational
128 background tests are presented in Table 4. The correlation statistic was Pearson's product-moment coefficient.

It must be pointed out that the supplementary data in the last three columns are very rough approximations only. Age had to be estimated, as most testees were unaware of birth dates. Often such events as the eruption of Mt Lamington or the Japanese invasion were used to estimate approximate age. In the initial analysis, age was found to correlate negatively with every other variable. The signs of correlations could be changed, and the variable called 'youth' if so desired. The standard reached at school and the number of years spent at school were also unreliable, but not to the same degree as age.

An analysis of variance was computed to find whether the difference between the groups was significant. The results in Table 5 below show that it was.

The F ratio indicated that there was a real difference between the samples $F = 6.931$ ($p<0.01$); therefore t tests were calculated to investigate which samples were contributing to this significance, i.e., which samples were really different.

The t values are included in Table 6 below.

Table 4

Correlations for each test

	Cube Imitation	Bead Threading	Passalong	Form Assembly	Pattern Matching	Kim Game	Gestalt Continuation	Total test score	Age	Standard reached	Years at school
Cube Imitation	-	542	273	554	334	413	397	687	-186	394	339
Bead Threading		-	337	460	244	251	255	569	-213	237	239
Passalong			-	261	435	364	386	610	-338	383	350
Form Assembly				-	494	265	448	650	-166	411	358
Pattern Matching					-	415	613	720	-309	639	584
Kim Game						-	405	790	-331	379	329
Gestalt Continuation							-	682	-385	492	416
Total test score								-	-410	597	530
Age									-	-575	-530
Standard reached										-	906

Decimal points have been omitted.

153
128

Table 5

Analysis of variance between the samples

Source	Sum of squares	d/f	Variance estimate	F ratio	Significance
Between samples	3,737.2	6	622.866	6.931	**
Within samples	11,951.0	133	89.857		
Total	15,688.2	139			

** denotes significance $p<0.01$.

Table 6

The t values between the samples

Sample	Beporo	Ex-servicemen settlers	Borugasusu	Inonda	Plantation labourers	Sivepe	Ongoho
Beporo	-	2.09*	3.67**	**	**	**	**
Ex-servicemen settlers		-	1.17	1.5	1.7	2.1*	3.8**
Borugasusu			-	< 1	< 1	1.2	3.0**
Inonda				-	< 1	< 1	2.1*
Plantation labourers					-	< 1	2.1*
Sivepe						-	1.4
Ongoho							-

The samples have been arranged here in descending order of magnitude.

* denotes significance at $p<0.05$.
** denotes significance at $p<0.01$.

153
128

Relationship of test score to productivity

153 The task of adequately assessing the productivity of each individual proved more difficult than anticipated. The field data forms did not give ready access to information which could be coded or scaled as to productivity. There were considerable differences in the manner in which the various field workers collected and recorded information. There was also a disparity between the sample of the author and that of other research workers. The New Guinea Research Unit was asked to rate the testees for whom information was available. They divided them into three categories of those having more than 500 cash crop trees, those with some cash trees but less than 500, and those without cash crop trees.

Altogether only 46 testees were able to be so categorized. Of these 5 were placed in the first category, 20 in the second category, and 20 in the third category. Another testee who had no trees but was in paid employment as a clerk was placed in the first category bringing the total to 6. The data for these categories are shown in Table 7.

Table 7

Mean test scores for the three categories

Category	500 plus trees	1-500 trees	No trees
Number of testees	6	20	20
Mean no. of trees	1035.6	134.3	0
Mean test score	36.0	24.5	18.4
Standard deviation	9.62	9.34	10.63

Three t tests were calculated to determine whether the differences between the mean scores were significant. It was predicted that there would be a positive relationship between categories and test score, therefore it was decided to use one-tail tests of significance. The t value between the first and second categories was 2.522 which is significant at $p<0.01$; between the second and third categories, a t value of 1.879 was found which is significant at $p<.05$; and between the first and third categories, a t value of 3.499 was obtained which is significant at $p<0.001$.

A principal components factor analysis was used to examine the factor content of the test. Only the test correlations (the first seven variables in Table 4) were used. Three factors were extracted. These are shown in Table 8.

Table 8

Unrotated factor loadings

153
128

Test	Factor I	Factor II	Factor III	Communalities
Cube Imitation	80	-36	-28	85
Bead Threading	-	-22	92	90
Passalong	59	-54	-	64
Form Assembly	83	32	-	81
Pattern Matching	68	28	36	67
Kim Game	72	-37	-	66
Gestalt Continuation	69	63	-	88
Variance	44.8%	17.0%	15.4%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

These factors were rotated using the varimax unadjusted method and are shown in Table 9.

Table 9

Factor loading rotated to a varimax unadjusted solution

Tests	Factor I	Factor II	Factor III	Communalities
Cube Imitation	89	21	-	85
Bead Threading	-	-	95	90
Passalong	78	-	-	64
Form Assembly	46	77	-	81
Pattern Matching	27	69	34	67
Kim Game	78	-	-	66
Gestalt Continuation	-	92	-	86
Variance	33.0%	28.4%	15.7%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

Discussion

In this paper the term cognitive ability is used in preference to the more commonly used term intelligence. The latter term has come to have a connotation by common usage which leads to ambiguity. Cognitive ability is used to mean 'thinking' or 'reasoning' abilities in their broader sense.

121
153

10: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

continues, a pattern of farmsteads set in consolidated, individual holdings may well replace today's villages and hamlets with their fragmented, widely-scattered landholdings. 361 178

Acknowledgments

This paper is portion of a wider study of Yega land use and settlement. The author gratefully acknowledges assistance and advice from colleagues in Australia, from officers of the Administration in Papua and from members of the A.N.U. New Guinea Research Unit. Field work was financed by research grant from the University of Sydney. 128 122

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Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Goube village. He was a member

---

[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

I

The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

---

[1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

583 to cook and serve the food. The ultimate recipients of these were
123 not ascertained. Secondly, most recipients were from Mosou and Ajoro, villages in which there were many clans. Complete analysis was not possible because detailed genealogies were not collected and because both the father and mother of the bride had genealogical links with Mosou village. Nevertheless, sufficient information was collected to indicate some of the principles underlying the distribution.

583 Households which shared in the bride-wealth have been catego-
[123] rized according to the head's approximate relationship to the bride (see Table 4).[1]

Category 1 included the households of the bride's father and brother. These men controlled the distribution of the cash and retained just under 90 per cent, each taking $35. Although the father directly controlled the distribution of the more valuable traditional ornaments almost all the non-monetary components went to other households.

Two other local households of the Andiriha received shares of the bride-wealth (category 2). Their shares were small, possibly because they were of neither the bride's nor the groom's lineages and were therefore to some extent in a neutral position regarding the marriage (see also page 96).

Only one household of the Andiriha clan from a distant village (category 3) shared in the bride-wealth and the share was very small. This parallels the small contributions of the two distant households of the groom's lineage. The only Andiriha households known by the Inonda people to have taken no part in the marriage were from Hanakiro, a village about 20 miles away.

A large number of households with heads affinally and matrilineally related to the bride's father (category 4) received modest shares of the bride-wealth. The genealogical ties of three of these households were reinforced by assistance which the heads had given with the ceremonies performed when the bride attained puberty, at which time her father was absent from Inonda. Some households in the category had genealogical ties to the bride's mother as well.

---

[1] It is possible that I was not aware of some cases where two or more recipients lived in the same household and if so, they have been listed in Table 4 as separate households. For example, an aged woman and her son may have received separate shares. Their relationships to the bride, as described to me, would not indicate whether they were in the same household and they would be recorded as separate households.

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda

128

Land, work and productivity at Inonda

by R.G. Crocombe & G.R. Hogbin

Contents

Page

Foreword

Chapter 1 - Introductory

Location and facilities 3

Physical features 3
- Topography
- Soils and vegetation
- Climate

Land use 7
- Food gardening
- Fencing
- Hunting, fishing and foraging
- Boundaries

Historical background 14

Demographic and social structure 16

Chapter 2 - Land tenure

The rights of social units 20
- The sub-clan
- The lineage
- The household
- The individual

Rights in relation to categories of land 32
- House sites
- Garden land
- Hunting and foraging rights
- Fishing rights
- Cash crops

Alienated land 41

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda

Page

Transmission of land rights 41

The enforcement of rights 42

Chapter 3 - Other property

Housing 44

Tools and equipment 44

Livestock 45

Economic trees 46

Non-monetary valuables 49

Income and expenditure 52

The inheritance of property 56

Chapter 4 - Work organization

Characteristics of the work force 58

Patterns of work 60

Chapter 5 - Limitations on productivity

Features of the tenure situation which inhibit productivity 72

Aspects of work organization which inhibit productivity 80

Other limiting factors 82

Income
Capital
Health
Non-traditional experience
Extension services
Transport
Marketing facilities

Some implications for policy 87

Appendices

A. The Higaturu Local Government Council Land Registration and Coffee Processing Schemes... 89

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda

Page

B. Non-monetary valuables 97
C. Rainfall 100

Bibliography 101

Maps

Inonda and environs 104
Inonda lands (division among lineages) 105
Subsistence gardens - stages of growth 106
Subsistence gardens - soil classification 107
Subsistence gardens - rightholding lineage 108
Cash crop gardens 109

new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land tenure and work organization.

It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepe, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

(1) Population density in the Saiho census division (which includes Sivepe) is 78.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

241 The supplementary food plants provide both variety in the diet and some insurance against failure of either of the two main crops. Corn matures within two or three months and can be planted amongst the taro if a food shortage appears to be imminent. [262] Both wild and cultivated sago is used as an emergency food. There is usually a shortage of garden crops at the end of the dry season, and this is overcome by making sago. Sago is only eaten at other times when large quantities of food are needed for feasts.

The boundary of a food garden remains recognizable for about three years from the time of clearing. By then the garden is covered with either regrowth or kunai and is no longer 126 producing food. All food gardens with recognizable boundaries were surveyed by chain and compass and the area of each garden calculated.(1) The date on which the vegetation had been cleared for the preparation of each garden was determined as nearly 241 as possible. The average area of land required for food gardens for the village as a whole was found to be 12.76 acres or 0.27 acres per head of population per year.(2) Areas of subsistence gardens at present being cultivated or from which food is currently being harvested are summarized in Table 2.

---

(1) Maps on a scale of one inch to one hundred feet were drawn. These have been reduced photographically and are reproduced on pages 106-108.A

[128] (2) This figure was calculated by the following method. For each household, areas of all gardens with recognizable boundaries were determined and totalled. The date at which the oldest of these gardens was established was determined for each household. From this information the area of garden land required per month was established for each household. (For example if the total area of gardens made by a household over 27 months is 5.4 acres, then that household makes new gardens at the rate of 0.20 acres per month or 2.40 acres per year.) The area of new garden land brought under cultivation each month by the village as a whole was then calculated by totalling the area required per month by each household, and multiplied by 12 to give the area required per year. This figure divided by the population of the village, gave the area of land required for gardening per head of population per year. The area of 0.27 acres of garden land per head of population per year should not be confused with the area of land which people were cultivating at the time of the survey. This latter area (0.31 acres) includes land cleared but not planted, land planted with gardens not in production and land from which garden produce was being harvested at the time the survey was made. It does not relate to any period of time, but gives an indication of the area of land which the households were actually tending at that particular time.

A [See Category 102, pp. 106-108--Analyst]

Several villagers were asked separately to rank each kind of hambo and di in descending order of value. There was agreement as to the ordinal value of most items and the few discrepancies were eliminated by discussion with the elders.

We took a list of hambo and di from each household head and details of the person from whom he had acquired each item, his relationship to that person, and the reason for the acquisition (whether as bride-price or by barter, cash purchase or otherwise). Cash values for each type of di and hambo were assessed on the basis of average prices realized in known sales and purchases. Where the people could not recall an instance of the sale or purchase of a particular item, its value was estimated from its position on the scale of relative values given to us by the local people. Hambo were valued from £3 for daremo (though occasionally extra large ones sell for up to £20) down to 2/- for the more common articles. Most feathers are now so abundant that they have no cash value, but bird of paradise, ungaifawo and cassawary plumes are still sold. Further details of assessed values of hambo and di are given in Appendix E[A].

The cash value of hambo and di held in the village at the time of our survey was as follows:

Table 5

Cash value of hambo and di

	Cash value	Household range	Household average
Hambo	£53.17. 0	0 - £15. 6. 0	£6.12. 2
Di	£17.17. 0	0 - £ 4. 6. 0	£2. 4. 8
Total	£70.14. 0	0 - £19.12. 0	£8.16.10

Few men looked after their own valuables. Two brothers (each the head of a separate household) who kept theirs jointly, left them in the care of their married sister in another village. Another two brothers and their father left their valuables, which they owned jointly, with the wife of the elder brother. Those of another household were held by the wife of the household head. In one instance the household valuables were left in another village in the care of the parents of the

A [See Category 436, pp. 97-99--Analyst]

Table 4

Estimated annual income of entrepreneurs ($)*
(excluding interest on savings)

	A (1965)	B (1963)	C (Average 1963-65)	D (1965)	Household average Inonda and Sivopo** (1962-63)
Sales: coffee	320	286	-	-	3
cocoa	175	***	***	50	-
copra	-	-	244	-	-
rubber	-	-	-	-	2
vegetable	-	16	-	20)	4
hunted meat	-	64	-	-)	
Gross store profits#	91	50	199	42	-
Compensation##	-	35	-	-	6
Government loan###	-	-	-	140	-
Paid labour	-	-	-	-	23
Gifts, etc.	-	-	-	-	11
	586	451	443	252	49

* In many cases these figures are estimates only.
** Crocombe and Hughin 1963b:53, and Rimoldi 1966:78.
*** Not yet bearing
# Assessed at 10 per cent of turnover.
Paid by government for coffee trees cut to widen road.
Under a government resettlement scheme.

Table 5

Estimated value of assets in 1965 ($)*
(not including land, domestic houses or cash savings)

	A	B	C	D	Total	Average	Village householders**
Coffee, cocoa and coconut trees***	3,440	1,320	400	1,740	6,900	1,725	40 (est.)
Buildings#	500	80	100	-	680	170	-
Tools and equipment	252	221	79	287	839	210	15
Consumers durables	240	55	75	132	502	125	10 (est.)
Livestock##	-	-	-	26	26	6	24
Traditional valuables	-	87	-	-	87	22	14
	4,432	1,763	654	2,185	9,034	2,258	123

[128] * This table is based on a series of assumptions, many of indeterminable accuracy. It should therefore be regarded as indicative of trends rather than as a precise record.

** For Inonda and Sivopo householders from Crocombe and Hughin 1963b and Rimoldi 1966. The average per householder for each village have been added and divided by two.

[128] *** Based on valuations for the entrepreneurs kindly supplied by the Chief Valuer, Lands Department (Mr D.D. Balfour-Ogilvy). Value for the village trees was estimated by the writer, on similar criteria.

Including only those buildings used in production (a cocoa fermentery, coffee drying trays and store, and a copra drier respectively). Domestic houses were in all cases built mainly of local materials.

Pigs assessed at $10, fowls at $2 each.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four
472 whose stores had an average monthly turnover of less than $50.00. Group III comprises those with a turnover in excess of $50 a month.

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(101) [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

17: Morawetz U-4,S (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

Contents

		Page
Foreword		1
Chapter 1.	Introductory	3
	Land tenure	4
	Land use	6
	Residence patterns	6
	Post-war tenure innovations in the Northern District	7
Chapter 2	The Ombi-Tara conversion scheme	9
	Cash cropping experience of the Ombi-Tara people	9
	Origins of conversion	11
	The new land system	13
	The conversion process	14
	Allocation of blocks	15
	Clearing and planting blocks	15
Chapter 3.	Motivations and expectations of the Ombi-Tara people	17
	Desire for improved standards of living	17
	Security of tenure	18
	Consolidation of holdings	18
	Publicity and information	19
Chapter 4	Effects of conversion at Ombi-Tara	21
	Land use	21
	Residence patterns	21

Page 128

	Social organisation	23
	Obligations	24
	Inheritance of converted land	26
	Work organisation	26
	Some future problems	27
	Cash cropping and productivity	32
Chapter 5	Summary and conclusions	35
	Individualisation of tenure	35
	Promotion of agricultural development	36
Appendices		
A	Process and costs of tenure conversion in the Northern District	38
B	The Ombi-Tara environment and population	49
C	Factors associated with high cash cropping activity	51
Bibliography		53
Maps	Popondetta District location map	5
	Plan of the Ombi-Tara tenure conversion schemes	12
Tables		
1	The state of eight tenure conversion schemes at 9 February 1966	39
2	Salaries (and allowances) assumed for costing purposes ($)	41
3	Survey - man-days per 1,000 acres	43
4	The process of tenure conversion - man-days per 1,000 acres and salary costs per 1,000 acres and per 100 blocks	45
5	Man-days per 1,000 acres and per 1,000 blocks for officers for whom housing is provided	46

		Page
6	Cost of providing staff housing for a one year programme to convert 1,000 blocks	47
7	The costs of tenure conversion per acre and per block	48
8	Resident population of Ombi-Tara by clan and location, January 1966	50

128

[p. x is blank]

17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
423 the Northern District of Papua in which land previously held under customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from
124 official files. Where recorded information was not available, estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During
122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Ihumu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara

I am indebted to the New Guinea Research Unit of the Australian National University for generous financial assistance. I wish to thank the Chief Commissioner of Land Titles (Mr D.J. Kelliher) and members of the Commission in Popondetta and Port Moresby; officers of the Department of Agriculture, Stock and Fisheries in Popondetta, and of the Department of District Administration in Popondetta, who discussed various aspects of the project and assisted me in every possible way; Mr Cromwell Bureu, Mr Russell Clarke and Mr Napier Boraba who helped greatly by interpreting both Orokaiva language and culture; Mrs Yvonne McMahon who typed a manuscript which was at times barely legible; and the Ombi-Tara villagers whose warmth, hospitality and enthusiastic co-operation made our stay so enjoyable. Helpful comments on an earlier draft were made by Dr R.G. Crocombe, Mr E.K. Fisk, Mr G.R. Hogbin, Dr R.T. Shand, Mrs S. Faircloth and Mr W. Standish. I am particularly grateful to Dr R.G. Crocombe, Executive Officer of the New Guinea Research Unit, for his advice and encouragement at all stages of the project.

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128
114
[124]
[115]

657 423 The procedures which operated from the introduction of tenure conversion in the Northern District are summarised in Appendix B. Procedure was altered by Circular 31.1.9 from the Administrator to all field officers, dated 3 November 1965. Since all tenure conversions up to 1 January 1966 were carried out under the old procedure this has been used as the basis for the following cost estimates.

Method of estimating costs

[128] An attempt was made to gather information on eight conversion schemes in order to estimate the costs of tenure conversion in the Northern District. The stage of development reached at these eight schemes by 9 February 1966 is set out in Table 1. All except the Dapari scheme were among the first ten conversion schemes promoted, and consequently are among the most advanced conversion projects in the country.

Table 1

The state of eight tenure conversion schemes at 9 February 1966

Name of scheme	Blocks	Acres	Crop	Stage of progress
Barisari No.1	55	1,680	coconuts	Hearing completed for 47 applicants on 29 Sept. 1965. Applications filed for other blocks.
New Warisota	32	640	cocoa	Hearing completed 14 Dec. 1965.
Ahora	36	720	cocoa	Hearing completed 28 Jan. 1966.
Ombi-Tara	40	800	rubber	Hearing for 35 applicants completed 9 Feb. 1966.
Somara	10	200	rubber	Awaiting conversion plans to accompany applications.
Barisari No.2	7	210	coconuts	Awaiting conversion plans to accompany applications.
Dobadura-Buna	63	1,260	coconuts	Awaiting applications.
Dapari	44	1,000	rubber	Land Titles Commission survey in progress.

657 423 [128] The costs in salaries of each stage in the conversion process were estimated separately. The number of days[1] spent by an officer on a particular task was converted into the number of days needed per thousand acres and per hundred blocks. Salaries assumed for costing purposes are set out in Table 2.

Although every effort was made to cross-check all information on costs, the figures represent an approximation only. Where possible Field Officer Journals were consulted to determine the number of days each officer spent at a particular scheme. Otherwise estimates were made from discussions with officers concerned. The number of vehicle days in each stage was estimated from the rest of the data.[2]

Salary costs of each stage of the conversion process

(i) Preliminary discussions. Officers of the Department of Agriculture, Stock and Fisheries (D.A.S.F.) or sometimes the Department of District Administration (D.D.A.) are approached by village people who request a tenure conversion scheme for their area. Discussions follow on the nature and implications of conversion. This involves two days each for an Agricultural Officer and his assistant. The number of days spent by officers does not vary with the size of the scheme.

(ii) D.A.S.F. investigation. Agricultural Officers investigate and submit a report on accessibility, names of neighbouring villages and schemes, topography, soil type, vegetation, people's attitude to conversion, crop recommendation and a recommendation concerning priority to be given to the scheme. Estimated time at Ombi-Tara was four days each for an Agricultural Officer and assistant.

(iii) District Development Committee meeting. The D.A.S.F. report goes before an informal meeting of the District Development Committee which allocates priorities for further investigation. Tenure conversion is only one of the committee's many spheres of

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[1] Based on 219 working days a year for expatriate officers, being 365 days less forty-five days leave (overseas officers are entitled to three months leave after twenty-one months' service), less ninety-one Saturdays and Sundays, less ten statutory holidays. Local officers receive three weeks annual leave and hence have 236 working days.

[2] 'Vehicle' is used in this appendix to include vehicle and driver unless otherwise stated. A full day for vehicle and driver was assumed if the officer requisitioning the vehicle spent the whole day at a scheme and returned the same evening. A half day was assumed if the officer was left at the scheme and the vehicle returned to Popondetta.

482

[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was self-sufficiency. Traditionally, the people of New Guinea were subsistence cultivators planting their food crops in small clearings in the forests and supplementing this food supply by fishing, by hunting the animals which live in the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements were available: stone axes with which trees could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 24 [226] [224] [222] [412] [312] [128]

433 24 171 [412]

Such an economy, in which there was no concept of saving and no profit motive, tended to be resistant to change; innovation was unnecessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

(P.1-A)

18: Dukuyne K-S (1962-1964) 1969
OJ23 Orokaiva OJ23
Yoga

ACKNOWLEDGEMENTS

000 The Author wishes to acknowledge the assistance of the following persons and organizations:

The Departments of District Administration, Lands, Agriculture, Stock and Fisheries of Papua-New Guinea and their field officers in Northern Papua and Bougainville; missionaries of the Anglican Mission (Papua), the Roman Catholic and Seventh Day Adventists Mission (Bougainville); Dr D. G. Bettison and Dr R. G. Crocombe of the New Guinea Research Unit, Port Moresby, and Miss Dawn Ryan, now of the East-West Center Hawaii.

122 The University of Sydney, the ANU New Guinea Research Unit and Conzinc Riotinto of Australia Ltd., provided financial assistance to cover the costs of field work.

128 Friends and colleagues who read the draft and offered helpful criticisms are Dr H. I. Hogbin, Department of Anthropology and Dr D. N. Jeans, Department of Geography, Sydney University, Mr C. D. Rowley, Director, Institute of Aboriginal Studies, and Mr N. D. Oram, New Guinea Research Unit, Australian National University. Messrs K. O. Clifford and B. McGee gave valuable help with the illustrations.

000 I wish to acknowledge especially, my debt to Mr Oram whose research findings were used extensively in the chapter on Port Moresby. For the opinions expressed however, I accept responsibility.

128 Special thanks are accorded to Mrs Susan Levine for her help in the arduous task of typing and checking the manuscript.
[p.40-B]

19: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land giver/land taker; human partner/spirit partner. In all these cases the equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are 'translation rules', i.e. rules about the translation of sentiments into prestations and about inferring sentiments from prestations received. These rules are elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest equivalent of *why?* is *do eto?*, meaning: what having been done, what having been?) I found that (except for identical return gifts), such questions were usually answered in terms of sentiments felt or professed by the donor towards the recipient. Bridewealth was always explained as a way of appeasing the wife-givers' anger at the taking away of their daughter. This anger is not just in the wife-taker's mind but is expressed by the wife-givers by certain stock actions and phrases (as in any joking relation) behind which there are individual variations in genuine attachment to the daughter, genuine aversion to the affines and shrewd calculation. To give another example, many feasts are made in order to restore amity between groups, in which case the small preliminary gift of betel nut and food accompanying the invitation (*sope ikari*, Schwimmer 1973: 151) would stand for an offer of amity (translation rule) and acceptance of the invitation would signify the prospective guests' willingness to forget past grudges.

Semantically, gifts encode sentiments in many ways: by what is given, how much, of what quality, in what manner, where, when, in the context of what relationship and so on.[2] The recipient decodes: he reads the donor's sentiments in the prestation—the only language that, in the cultures discussed here, does not lie. Words are not to be trusted: but a gift is sacred like a statement under oath. Sentiments do not, of course, objectively explain gifts but the translation rules specify what message a particular gift conveys about the donor's sentiments. While social anthropology may not be interested in sentiments as such, it should be interested in the codes in which they are ritually expressed and in which the receiver is urged to change his own sentiments. To the extent that the principle of reciprocity has weight in a society, conflict will tend to be resolved by prestations that will re-establish sentiments of amity rather than by the interpretation of (often ambiguous) rules of law. Such prestations recompense the distress caused rather than the torts committed.

The rest of this article will present an example of semiotic analysis of an exchange system. This analysis, based on Orokaiva data, starts (part II) by investigating terminology used in discourse about gifts, debts, exchange and reciprocity. It explores the relation between the constitutive rules and the ideology of reciprocity.[3] The second step in analysis (part III) will relate this ideology to the overall Orokaiva world-view, thus demonstrating that the principle of reciprocity is not an observer-improvised category but an integral part of the conceptual system. Finally (part IV), we shall consider the relation between the constitutive rules and transactional practices and test Sahlins's theory of exchange against the semiotic analysis of Orokaiva data.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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LIST OF CONTENTS 11

Page 129

List of Tables v

List of Maps vii

Preface 1

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

Chapter 1: The Eruption and Evacuation of Survivors 5
Section 1: Mount Lamington: Cosmic Centre and Volcano 5
Section 2: Preliminaries of the Eruption 6
Section 3: The Day of the Eruption 10
Section 4: The Beginning of Administrative Action 12
Section 5: The Decision to Relocate 14

Chapter 2: Physical Environment 23
Section 1: General Remarks 23
Section 2: Climate 24
Section 3: Topography 26
Section 4: Resources 33

Chapter 3: Social Environment 41
Section 1: Opportunity for Contact with Outsiders 41
Section 2: Contacts with Closely Allied Villages 43
Section 3: Other Contacts Within the Sasembata District 48
Section 4: Other Contacts with the Waseta "Tribe" 49
Section 5: Contacts with Other Orokaiva 53
Section 6: Contacts with Indigenous Office-Bearers 55
Section 7: Contacts with Chinese 60
Section 8: Contact with the "Taupa" 61
Section 9: Contact with Americans and Returned Ancestors 67
Section 10: Self-Group Image 69
Section 11: Acculturation 75
Section 12: Impact of External Influences on Community Organization 82

Chapter 4: Contact with Congeners 93

Chapter 5: Disease 95

Chapter 6: Government Welfare Efforts 97
Section 1: Relocation Plans and Their Implementation 97
Section 2: Economic Assistance 107
Section 3: Social Services: Health Assistance 111
Section 4: Social Services: Education 115
Section 5: Attitudes Towards Government 1211

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Chapter 7: Mission Welfare Efforts 123
Section 1: Mission and Community 123
Section 2: A Case History: Women's Organisations and the Mission 125
Section 3: The Mission and Traditional Religion 129
Section 4: Social Services 131

Chapter 8: Selection of Emigrants 133

PART II: INTERNAL INFLUENCES

Chapter 1: Size and Distribution of Relocated Community 135
Section 1: Statement of the Problem 135
Section 2: Spatial Arrangement 135
Section 3: Social Groups 139

Chapter 2: Socio-Economic Status 144
Section 1: Age, Sex and Marital Status 144
Section 2: Division of Labour 145
Section 3: Education, Occupational Skills, Money Income 150

Chapter 3: Degree of Homogeneity of the Community 153

Chapter 4: Acculturation at the Time of Resettlement 155

Chapter 5: Familiarity with the Homeland 159

Chapter 6: Addition and Loss of Community Members 160

Chapter 7: The Role of Mediators in Development 163
Section 1: Expatriates 163
Section 2: Papuans from Other Districts 167
Section 3: Residents of the Community 169
Section 4: Marginal Individuals 174

Chapter 8: Factionalism 176

Chapter 9: Adherence to Tradition 179
Section 1: Conflicts between Two Conceptual Systems 179
Section 2: Controls Operating for and Against Continuance of Tradition 181

Chapter 10: Esprit de Corps 184

Chapter 11: Epilogue - The Case of Hohorita 185
Section 1: Comparison Between Resettlement of Sivapa and Hohorita 186
Section 2: Physical Environment 189

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

Section 3: Social Environment 191
Section 4: Leadership in Hoborita 194
Section 5: Internal Influences of the Eruption 197
Section 6: Conclusion 199

Bibliography 201

Statistical Tables 205

Maps

Appendix: Outline of Factors Influencing Change and Stability (Variables required to be investigated by field assistants cooperating in A Comparative Study of Cultural Change and Stability in Displaced Communities)

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

LIST OF TABLES

128

Table 1: Casualties of the Mount Lamington Disaster

Table 2: Adult Population of Multi-Clan Villages in the Saiho Census Division, 1966

Table 3: Monthly Rainfall for Awala, 1955-62

Table 4: Monthly Rainfall for Popondetta 1955-61

Table 5: Seasonal Variations in Mean Time Spent Per Man-Week on Subsistence Activities in Sivepa 1964

Table 6: Northern District, Population 1966

Table 7: Food Plants Per Household, Inonda and Sivepa Compared

Table 8: Activity Patterns of Households in Sivepa and Inonda

Table 9: Consanguineal Linkages Between 51 Sivepa Informants and Other Villages, Classified by Degree of Network Density

Table 10: Changes in House Design, House Construction and Domestic Amenities in Sivepa, 1936-1966

Table 11: Hospital Admissions in St. Margaret's (Anglican) Hospital at Eroro, Northern District, Over 1966

Table 12: Revised Estimates of Higaturu Local Government Council for July 1966 - June 1967

Table 13: Total Expenditure on Public Health in the Territory of Papua during the Year Ended 30th June 1965

Table 14: Enrollment in Primary Schools of the Anglican Mission in the Northern District

Table 15: Household Composition, Sivepa and Inonda Compared

Table 16: Population by Age, Sex, Marital Status and Clan, Sivepa and Inonda

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

128

Table 17: Sivepe: The Allocation of Time Within Activities. A Detailed Analysis of 28 Occasions Covering 19 Individuals

Table 18: Sivepe: The Division of Labour by Age

Table 19: Division of Labour Between the Sexes Among the Orokaiva in 1923

Table 20: Education and Occupational Experience of the Jegase and Seho Clans of Sivepe Compared - Adult Males Only

Table 21: Noherita Male Adults in Skilled Occupations

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

MAPS AND PLANS

128

I Map of Northern District of Papua

II Map of the Devastation Area After Mount Lamington Eruption

III Map of Sivepa Land Holdings

IV Map of Inonda Land Holdings

V Plan of Old Sivepa Village

VI Plan of New Sivepa Village

VII Plan of Old Inonda Village

VIII Plan of New Inonda Village

IX Area Map of Sivepa and Closely Allied Villages

X Tribal Map of the Northern District

XI Plan of Sasembata Mission Station

XII Plan of Modern Orokaiva House

XIII Map of Hohorita Land Holdings

XIV Plan of Hohorita Village and Mission Station

Section 3: The Day of the Eruption

As the eruption itself is the central event of this entire report, I shall dwell upon it in some detail. I shall discuss it from five vantage points: the vulcanologist's, the experience of the Sangara people, the Sivepo and the Inonda people, and finally the action of the administration. The vulcanological aspects have been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours on Sunday, 21 January, 1951, a paroxysmal explosion burst from the crater and produced a nuée ardente which completely devastated a surrounding area of 68 square miles." This explosion had a marked resemblance to that of Mount Pelée at St. Pierre on Martinique in 1902, when 29,000 people perished in a few minutes. The effect of the Pelean type of explosion is very different from the more usual one which is called "Vulcanian," and which occurred, for instance, at the famous eruption of Vesuvius described by Pliny. One may compare it, rather, with the effect of an atomic bomb; the lethal effect of the nuée ardente seemed to be due mainly to sudden damage to the respiratory system caused by inhaling hot dust. Almost 4,000 people were killed. Destruction in the inner zone of devastation was almost complete: the rain forest on the slopes was flattened and in some places the earth was swept bare, not even stumps remaining as evidence of the previous forest cover. At Higaturu, six miles from the crater, only one house remained reasonably intact; most of the buildings on the government station were carried away. Of the people who lived in this inner zone of devastation scarcely a single one remained alive.

Taylor classified a further 2½ square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Koborita came from villages such as Tunana, Seamu, Sehundoturu, all of which lie in the area of partial devastation. From the village of Soubo, on the boundary of the area of complete devastation, one man escaped (Table 1).[A]

I interviewed members of 15 Koborita households about their experiences during the day of the eruption. Some of them escaped because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Ambogo immediately

[A] [See Cat. 116, p. 205--Analyst]

731 during the night. It did not, however, become a rallying point for resettlement organisation. It was too close to the mountain. Half an hour after the eruption, crowds of Orokaiva carrying pigs, dogs and babies, were already rushing past Awala Station westwards along the road to Kokoda. All these people from the Western slopes stopped at the Waseta Mission, a few miles past Awala, as they were reassured by the presence of a nucleus of Australian organisation. The Sivape people and others who came from a relatively greater distance, stayed at Awala the night of January 21 and some reached Waseta the next day.

Along the Eastern side of the Mountain, among the settlements along the road to Oro Bay, there was no acute danger, but there was fear. Inconda, which was chosen as the control community, was never "resettled "in the sense that its people at any time left their village lands. When they saw the ash and smoke they did, however, consider themselves in danger because of the anger of Sumbiripa. Perhaps in response to police messages, perhaps spontaneously (Inconda informants say the latter) they shifted to the Inconda air strip, which was about a mile along the road in the direction of the coast and there waited for the white man to arrive. Meanwhile, the people of Seva, a related village close to (but well without) the line of partial destruction as shown by Taylor, evacuated their village and joined their relatives at Inconda. This was a more orderly evacuation than most, because the Papuan deacon (who lives at Inconda today and whom I interviewed) had somewhat varied the District Commissioner's message when he delivered it in church on that fatal morning. Though he followed his instructions by advising the adults to remain at Seva, he also said that they had better send their children to Inconda. Thus, when the mountain erupted some time after the service, the children had already gone. Upon arrival at Inconda, the Seva people joined their hosts and camped by the airstrip.

Section 4: The Beginning of Administrative Action

If it had not been for the influence of European administration, this flight from the mountain would probably have been followed by a fairly early return. Administrative measure, at first aimed purely at the relief of distress, soon began to include measures to restrain the fugitives from returning. These measures followed vulcanological predictions, this time based on sound scientific investigation, concerning the likely future behaviour of the
12| mountain. In considering administrative action, there are four
128 aspects to be distinguished: first, the investigation as to the nature of the disaster; secondly, the organisation of food and medical supplies and other immediate relief measure; thirdly, a

121 vulcanological study to guide future policy and fourthly, the
128 planning of longer-term resettlement, with which this report is principally concerned.

During the first day, communication was a difficult problem.
73| A plane sent to Popondetta on the day of the eruption could not land. All official radio communication channels in or near the devastation area were broken down. The government in Port Moresby was informed about the disaster by radio through a private transmitter owned by Mr. Searle and operated from Awala. In the afternoon a car containing an agricultural officer and a technician from the Anglican Mission (Mr. R. Hart) traveled from Popondetta to investigate the situation. This car, after making inquiries at Sangara Station, reached Awala and reported to the government. In the evening there was a second eruption, this time without a nuée ardente but noisier than the morning eruption, the fall of ash was heavier and much larger stones were ejected over a larger distance. The fall of ash was heavy enough to warrant the closing of the aerodrome at Port Moresby, some 140 miles away, on the following morning due to limited visibility. Searle has to stop transmitting messages from Awala as too many stones were falling and an electrical disturbance made transmission impossible. He shifted to Wasata which then became the centre of organised activity on the Western side of the mountain.

On Monday 22 January, the full resources of the administration were directed at rescue work. The Administrator, Col. J. K. Murray, and the Director of Health, Dr. J. Gunther arrived at Popondetta. Mr. Fred Kaad, an officer of the Department of District Administration (now Head of the Australian School of Pacific Administration, Sydney, where I interviewed him) was seconded from Lae to head an organisation to help the fugitives. On the Monday, he reached Popondetta and paid a brief visit to Inonda airstrip. The vulcanologist, G. A. M. Taylor, arrived the same day and began to observe the mountain which he continued to do for two years, being present for all the main active phases of the post-climactic period. At Wasata, the immediate food shortage was relieved from Mr. Searle's stores, but soon food, medicines and blankets began to be air-dropped. At Inonda, an expedition was organised to find missing people from Seva; some Seva people who had been wounded by the eruption were flown to Popondetta for treatment. Mr. W. Schleusner, from Sangara Estate, visited Higaturu and reported the devastation; he counted 200 dead. A district office was set up at Popondetta, to replace the destroyed office at Higaturu; from this office it was decided, on the same day, that refugee camps were to be established at Cape Killerton, for the Sangara survivors and all others from the Eastern and Northern side of the mountain, while the people from the West, now mostly gathered at Wasata, were to be encamped at Wairope, by the side of the Kumusi River.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Mongi to Agamahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [628] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Wasesa, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

121 Under this heading there are three aspects to consider: the participants, the procedure and attitudes towards the necessity of 128 relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this 657 was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[209] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[198] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
[B21] this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals who seemed to play a key role in development. The study of these key individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilence when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to *signify the opposition* 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

the enemy, but rather in the Papuan sense, where one contends with exchange partners in an inconclusive tug-of-war and the strength of the opponents is approximately equal. Victory, in other words, is the establishment of an equal rather than an unequal relationship.

Given this view of the European-Orokaiva relationship, it is difficult to distinguish between millenarian and gradualist ideologies among the Orokaiva. They are all, in a sense, millenarian, even though they advocate full collaboration with both mission and government. From the more objective view I have taken here, the three Orokaiva ideologies present at the time of the eruption all convey the same message. They are all concerned with the restoration of what the Orokaiva call 'power', which always implies some form of power balance between themselves and their colonial masters.

IDEOLOGY, POWER, AND LAND

As we have seen, all Orokaiva discourse about the eruption can be reduced to one basic theme: competition for power between Papuans and Europeans. I have not surveyed administration discourse about the eruption in the same detail, but it is safe to say that, apart from the mechanics of relief, the administration was likewise concerned with one central ideological theme, namely socioeconomic development. Our structural analysis would hardly be adequate unless we considered the relation between these two ideologies, not only in abstract terms but also in the framework of concrete events.

During the period immediately after the disaster, the administration planned to make the evacuation camps the beginning of permanent relocation under conditions where socioeconomic development throughout the region could be accelerated (Belshaw 1951; Keesing 1952; Plant 1951). While this relocation was being planned, the evacuees were adamant that they wished to go home as soon as possible (Belshaw 1951; Kaad, personal communication). That the administration gave in to the evacuees should not be regarded as a Papuan demonstration of their own power but rather as a necessary response to practical problems facing Orokaiva as swidden agriculturists lacking a secure system of individual, unencumbered landholding. The circumstances of the closing

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

I. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts cóconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

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101 114 1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

114 128 2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Zsuka Schwimmer, worked with me in the field on the collection of data and later with their analysis.

824 431 3. "A principle of gradation by which elements are related to the whole of which they form part."

121 4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

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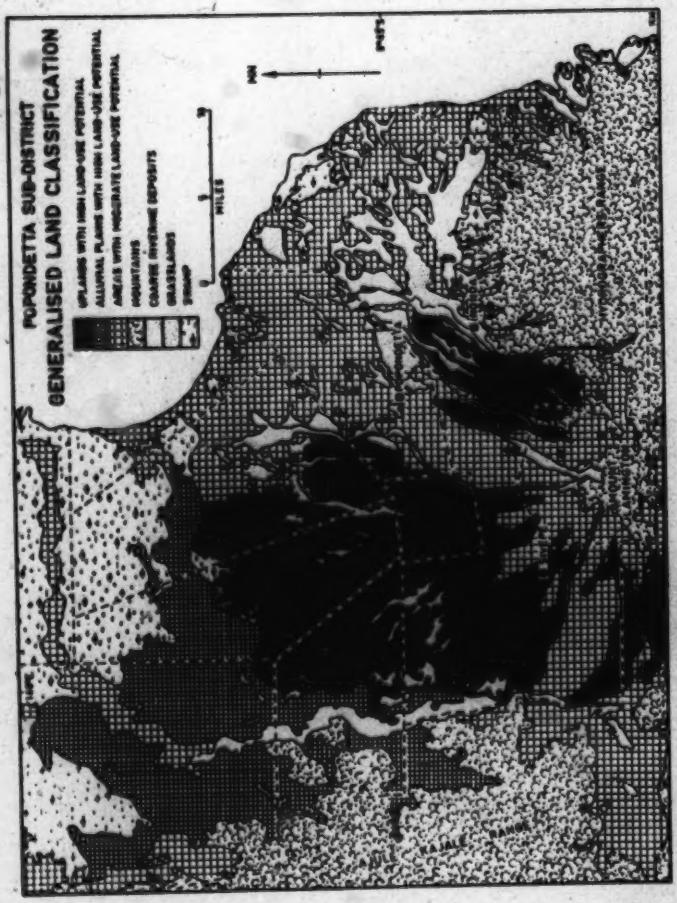

Fig. 1. Popondetta Sub-District: generalised land classification

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Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use[1], Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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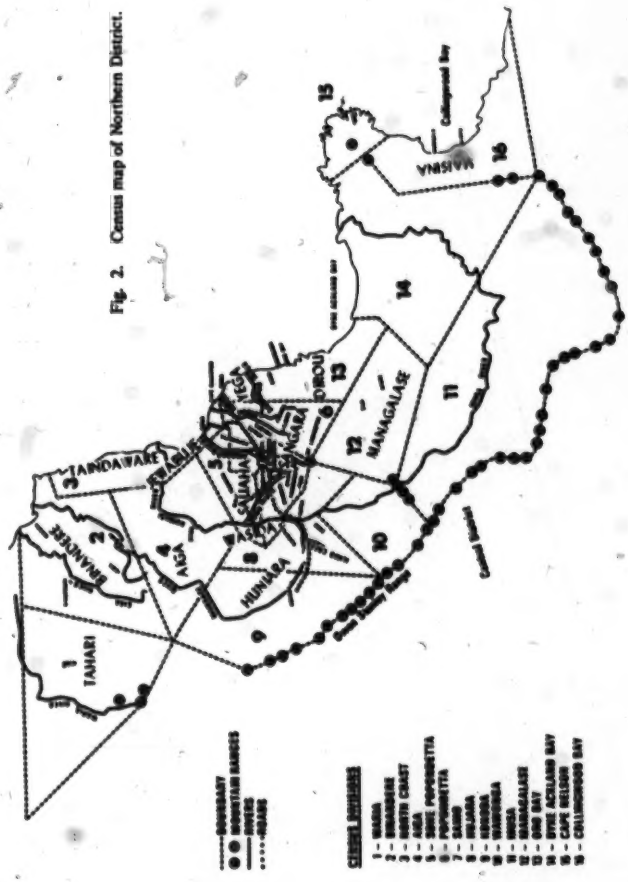

Fig. 2. Census map of Northern District.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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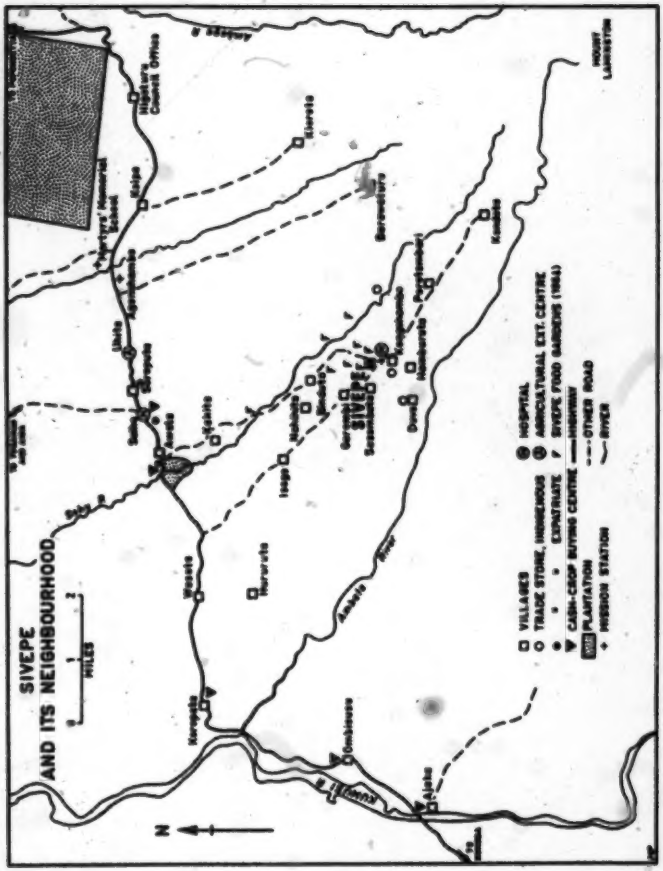

Fig. 10. Sivepe and its neighbourhood.

Native plantations as the mainstay of agricultural policy (1918 - 40)

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After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

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In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees; and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

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Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

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(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land is lower, flatter and comparatively poor and receives about 95
131 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

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1 For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

2 Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

3 After Kaipi, Gulf District and Kubuna, Milne Bay District.

4 However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

C2| obscure any important differences in structure and our historical
36| data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepo now has a population of 120 and is linked with Binduta, several hundred yards away, and with Nahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

13| Sivepo is situated on the western bank of the Sohu River, a
49| tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepo on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepo it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797| There were very few facilities for formal education in this
871| tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951.:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepo, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepo are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepo children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

e. Economic trees

Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timusu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Chapter 1

The physical and social setting

This chapter summarises the physical and social background to current attitudes to cash cropping among the Orokaiva. 128

The physical environment

(a) Landforms (see Map 1)

Lying between the main New Guinea cordillera and the Pacific Ocean, the Popondetta sub-district[1] has a great variety of landforms and soils and, to a lesser extent, of vegetation.[2] Bounded on the south-west by the foothills of the Owen Stanley Range (4,000 ft) and on the south by Mt Lamington[3] and the Hydrographers Range (4,000 to 5,000 ft), the area comprises a broad plain sloping gently north-eastwards to the Pacific Ocean. Three elements may be distinguished within it: strongly dissected piedmont terraces, alluvial plains of volcanic materials (to the north-east of Mt Lamington) and flood plains from 10 to 25 miles wide extending from the terraces to the coast. All characteristically support primary or regrowth lowland forest except in the relatively drier and sandy areas, particularly on the plains north-east of Mt Lamington, where there are extensive stretches of grassland. 131 133 133 [137]

The CSIRO (Division of Land Research) considers (1964:17) that although there is more poor than good land in this area, 'some of the best land in the Territory' occurs on the gentle northern foot slopes of Mt Lamington and in parts of the flood plains where fertile volcanic soils and stratified sediments with a high organic content have developed. The major factors limiting land use are steepness of slopes in the mountain zone, and poor drainage and flooding in the lowlands. Soil deficiencies do not appear to be a serious limiting factor. 311 133

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1 An area of 3,712 square miles.

2 The following description is derived from CSIRO 1964:10-13.

3 A volcano which last erupted in 1951, resulting in extensive destruction and loss of life.

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Togohau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is
137 characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-
311 use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

361 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Huhurunda). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 368 131 The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two of them expatriate-owned, and a new Administration school. This latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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MAP 5

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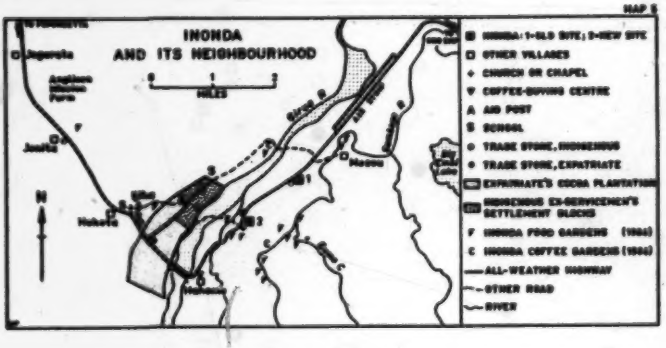
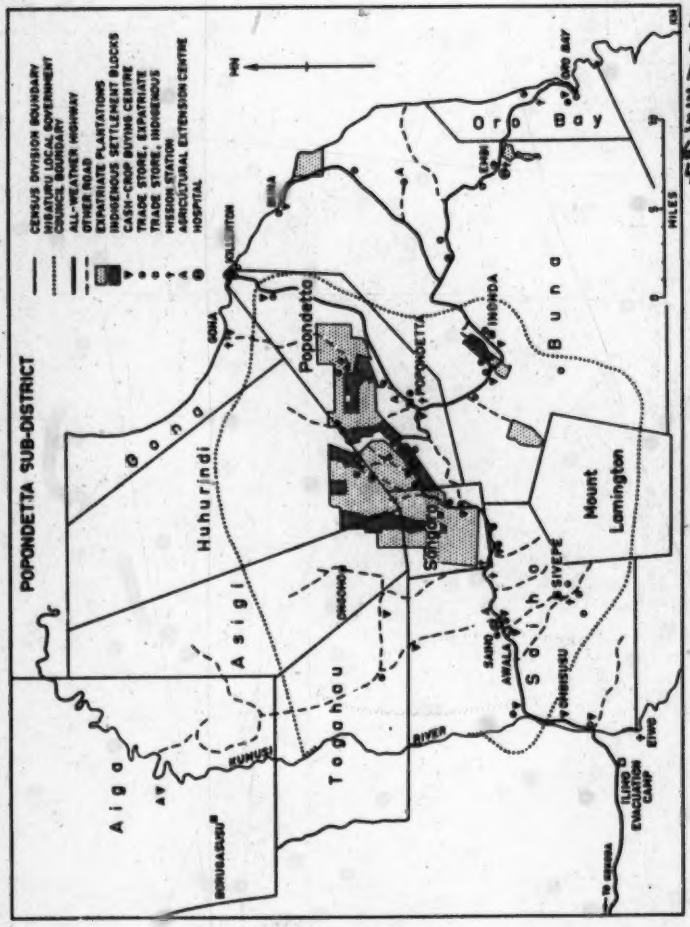


9: Kearney P-5 (1963) 1966 OJ23 Orokaiva OJ23



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[p-44]

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

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Figure 1

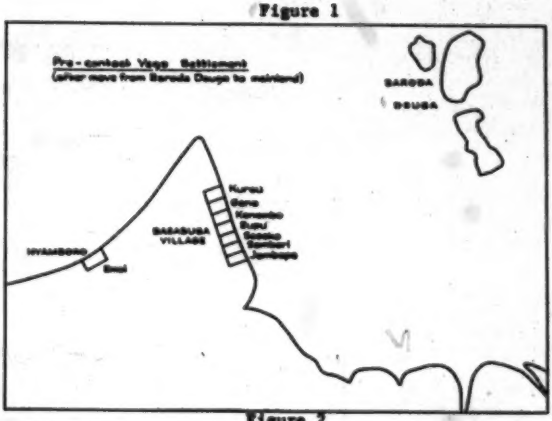


Figure 2

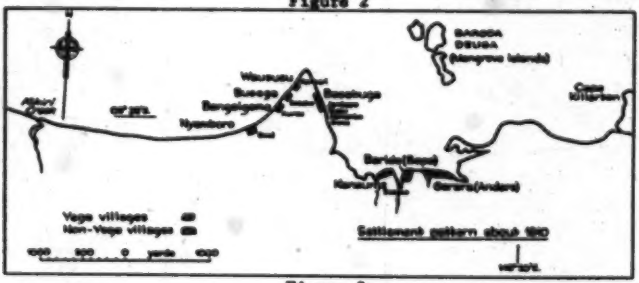
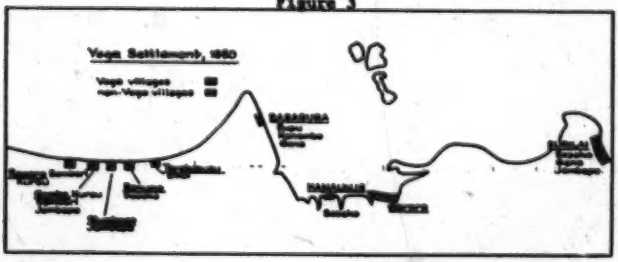
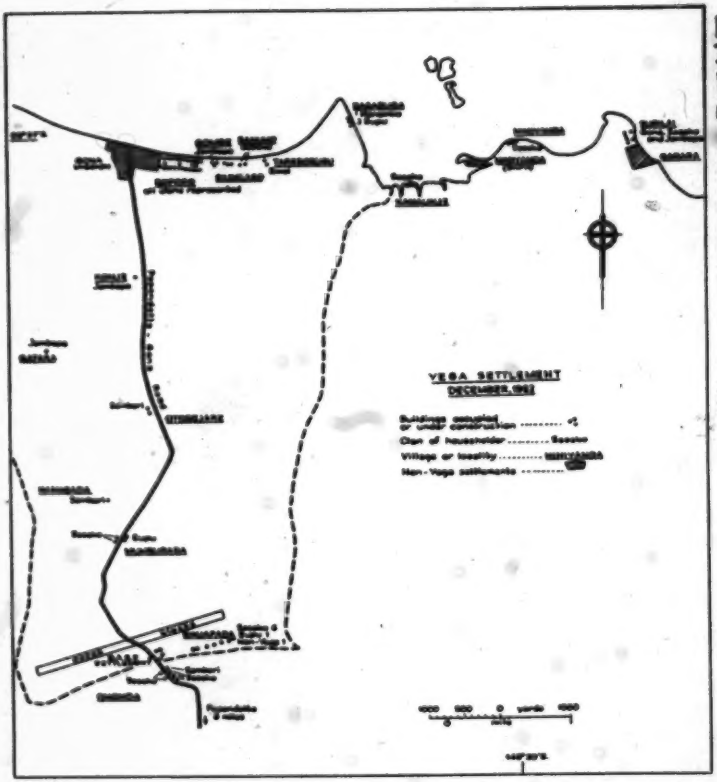


Figure 3



10: Dakoyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

Figure 4



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10: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

Figure 5

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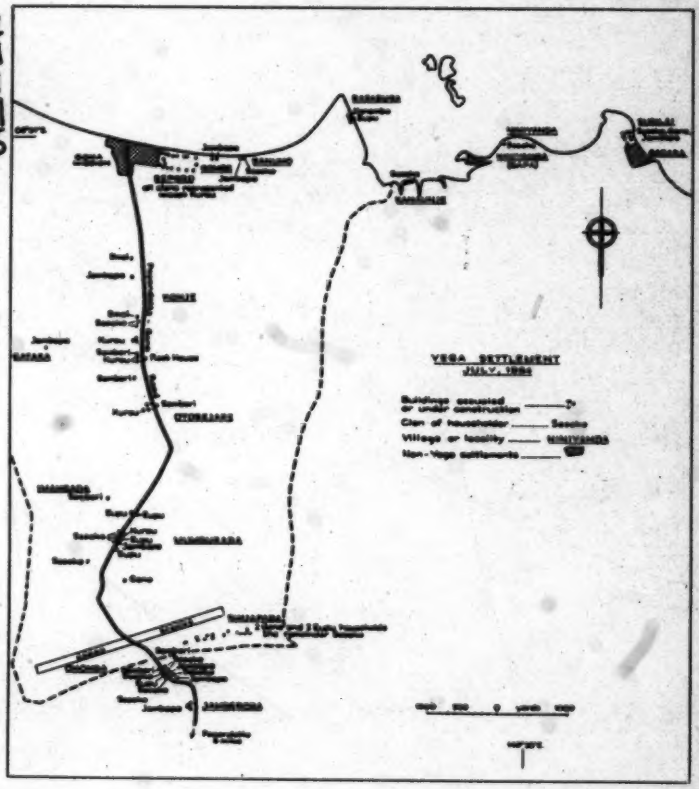

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 [811] [787] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 499 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

220 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when 222 the rivers are low and the water is clear, and spearing is then easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided 423 between the lineages. Boundaries are marked by trees (especially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

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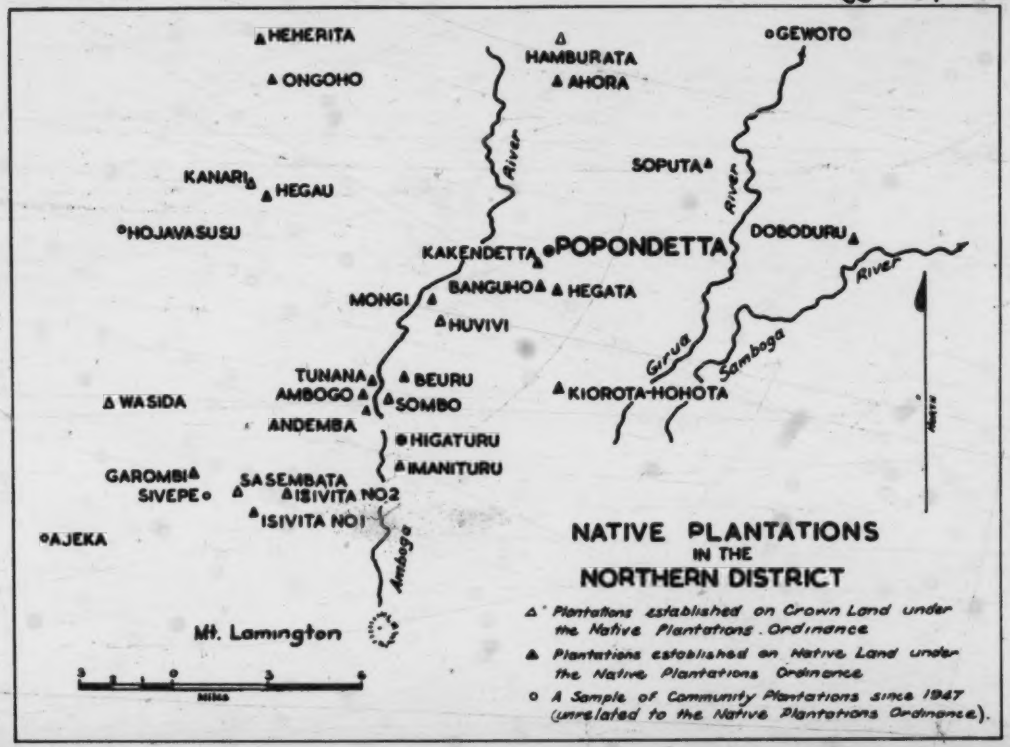

NATIVE PLANTATIONS
IN THE
NORTHERN DISTRICT

△ Plantations established on Crown Land under the Native Plantations Ordinance

▲ Plantations established on Native Land under the Native Plantations Ordinance

○ A Sample of Community Plantations since 1947 (unrelated to the Native Plantations Ordinance).

[end map]

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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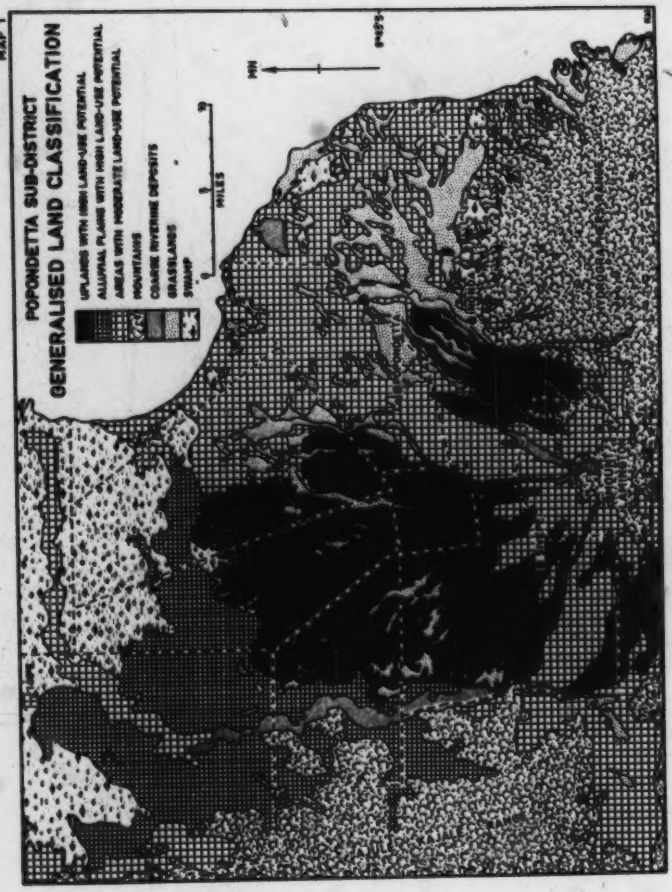

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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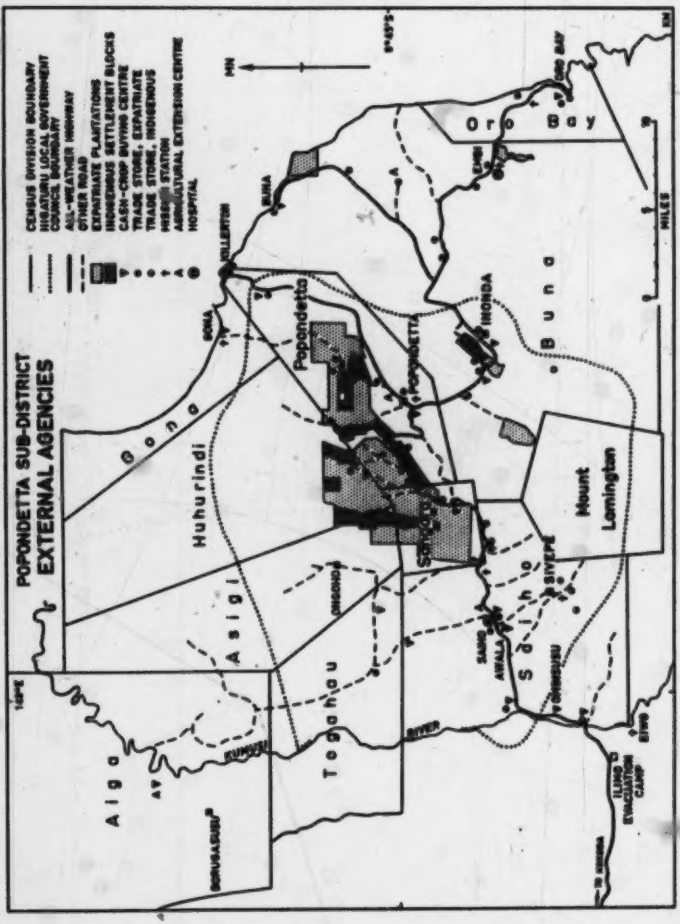

11: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23 Yega

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Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [368] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

614 423 000 No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

177 [245] The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. 241 433 [464] 000 Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

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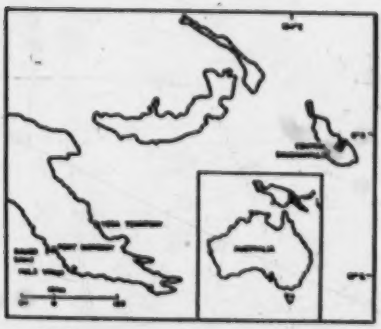

Fig. 1. Location of the three case studies

[P4-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and hornbill beaks.]

THE YEGA OF NORTHERN PAPUA

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THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

139 The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

132 replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

175 The first reported contact between Euro-
179 peans and Yega was during an expedition along the coast by the Lt Governor of Papua,
799 Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission
179 school on Waususu Point in 1909. From this
464 time until the outbreak of World War II, Yega men began leaving their villages to work
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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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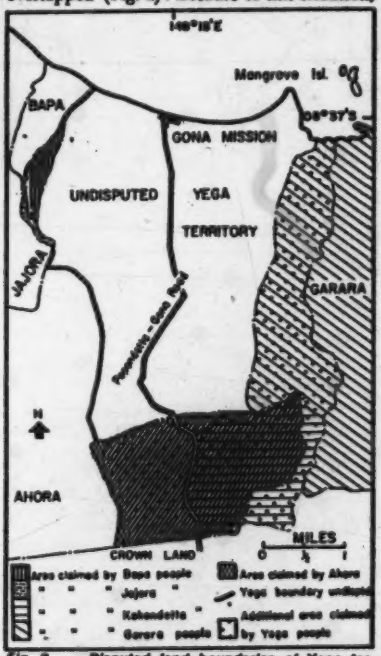

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

[P.6-A]

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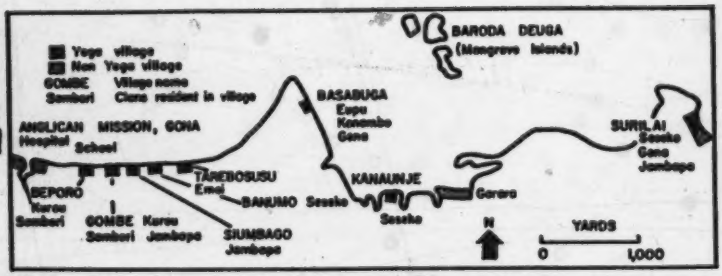

[P.12-C]

Fig. 8. Settlement pattern of the Yega in 1960

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepa, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same wild and cultivated crops as in Sivepa. Before the eruption, the
361 concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
350 live in Hohorita and the rest in the three other villages. The
161 total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepa, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[6] developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission

A [See Cat. 116, p. End Map 13--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

[End Map 1]

Boundaries of Northern District

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22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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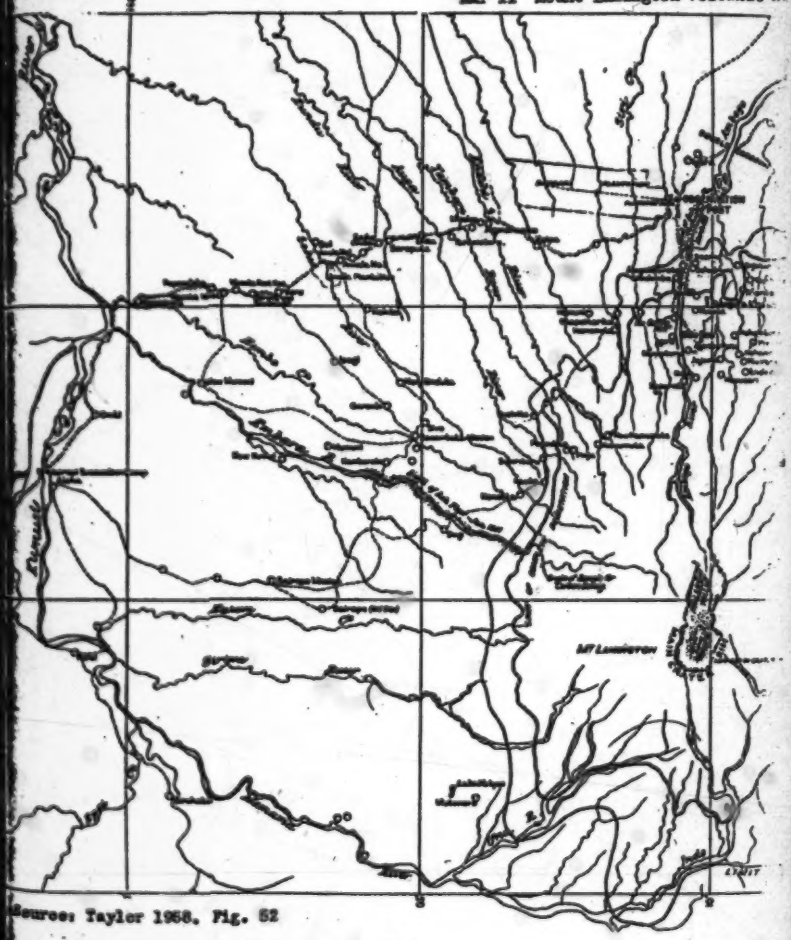
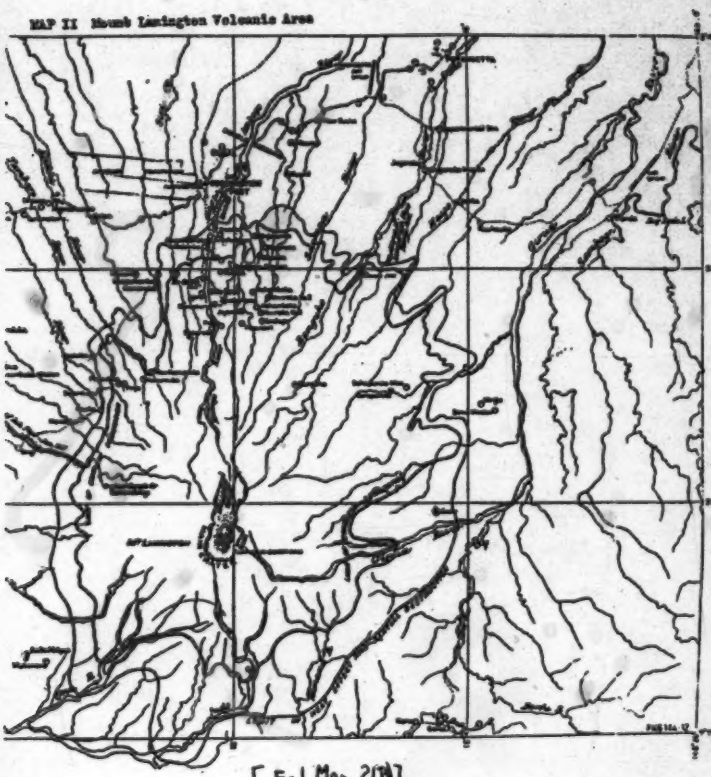
MAP II Mount Lamington Volcanic



Source: Taylor 1968, Fig. 52

[End Map 2(A)]

MAP II Mount Lamington Volcanic Area



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[End Map 2(B)]

Map IX

Source: Waddell & Krinks 1968: 34

[End Map 8]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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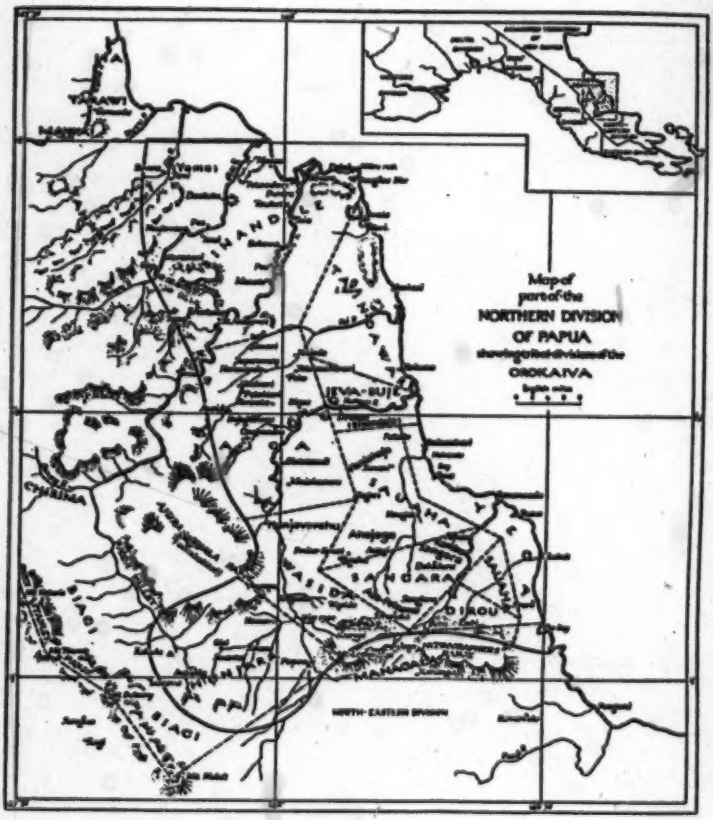
22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map X



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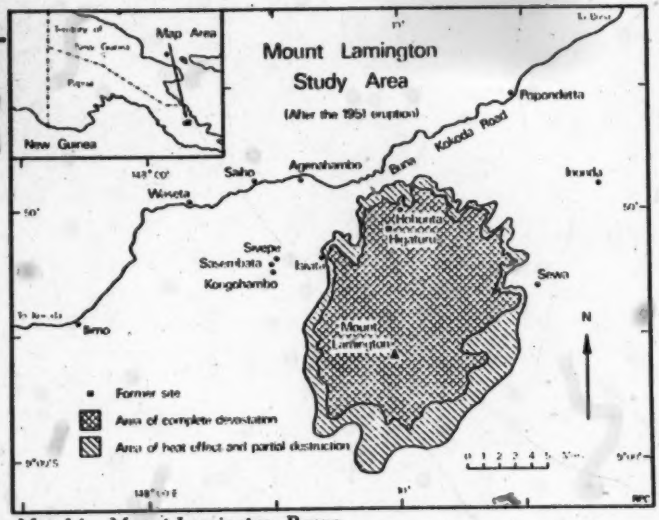
Source: Williams 1930

[End Map 9]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23



Map 14. Mount Lamington, Papua.

survivors, established camps to house them, and set up a volcanological observation post. Acting on technical advice that further explosions were to be expected, the administration at once restricted access to a fairly wide area surrounding the crater, thus forbidding most of the fugitives to return to their homes. It was at this stage also that the administration called in two anthropologists, Felix Keesing and Cyril Belshaw, for advice on what should be done with the now homeless population.' Shortly after the two anthropologists left the scene in May 1951, volcanological studies indicated that the active, paroxysmal stage of activity of Mount Lamington had ceased and hence that a large part of the restricted area could be resettled. In March 1953, it was possible to reduce the restricted area still further, to a circle of 2 miles surrounding the crater. As a result of these events, virtually all arable land in the district was in use when I visited in 1966–1967. There were no displaced communities in the proper sense of the word. There had been movements of villages from the crater area to consolidated settlements in the vicinity of paved roads, but here convenience

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namei* type of relationship are in Pouwer (1953) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *dimbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

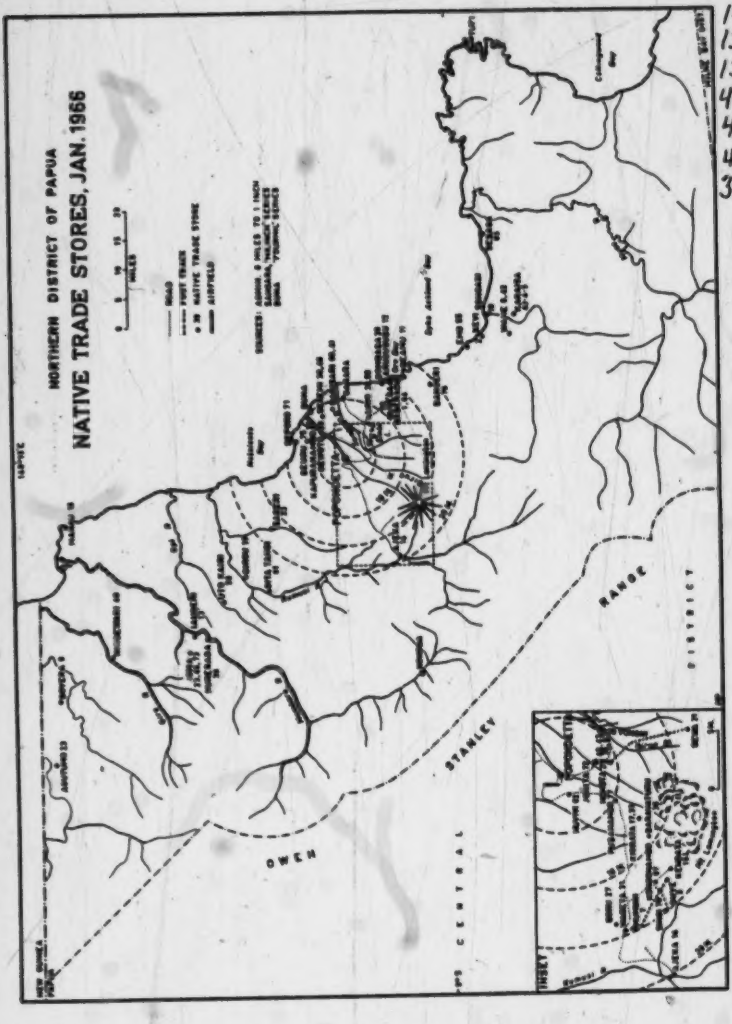
26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of



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17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara

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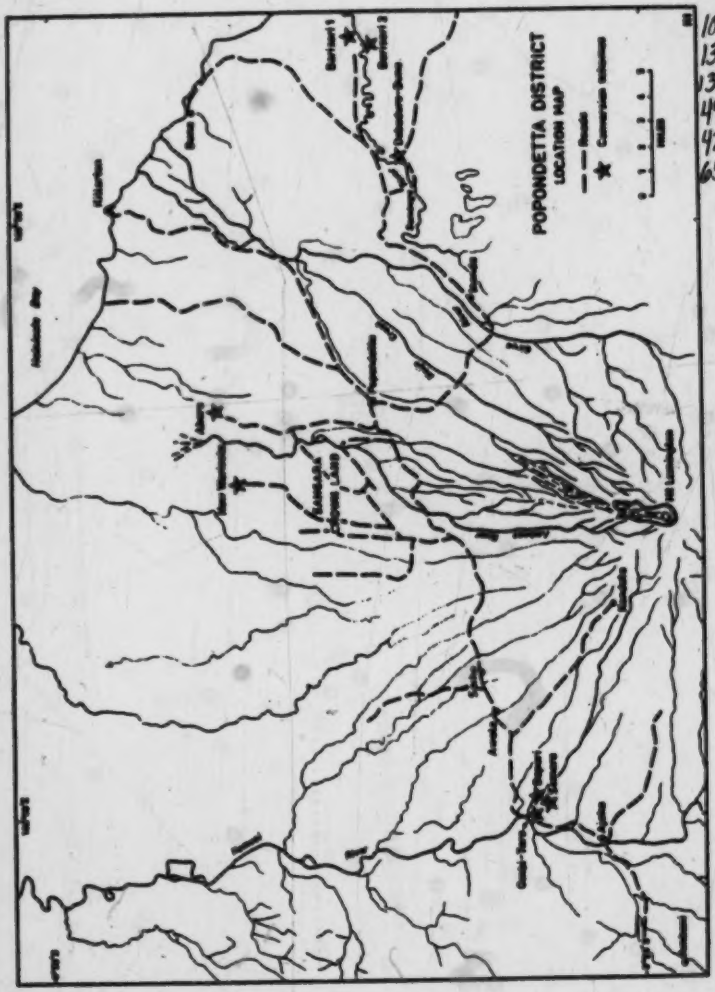

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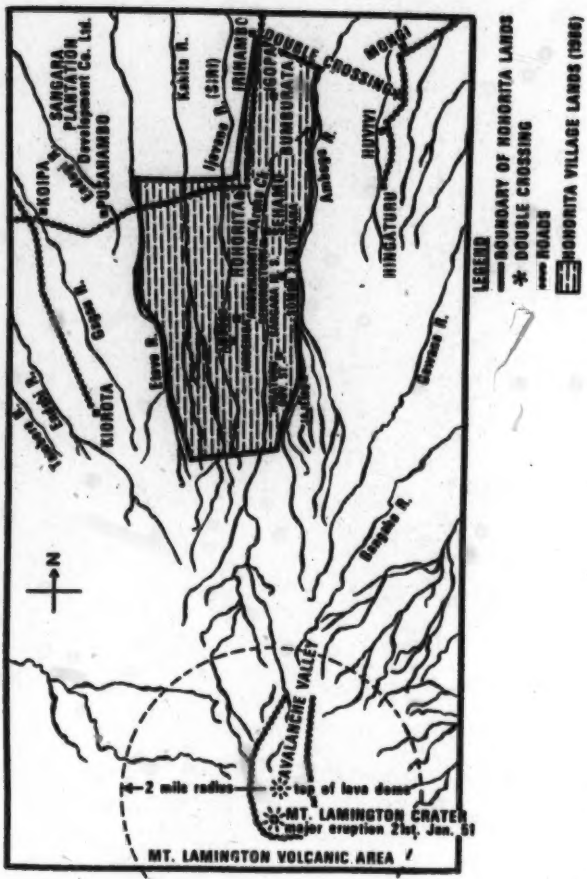
22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington



Map XIII

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[End Map 12]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use[1], Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to tubers, especially taro. The Australian authorities had hardly established
473 themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
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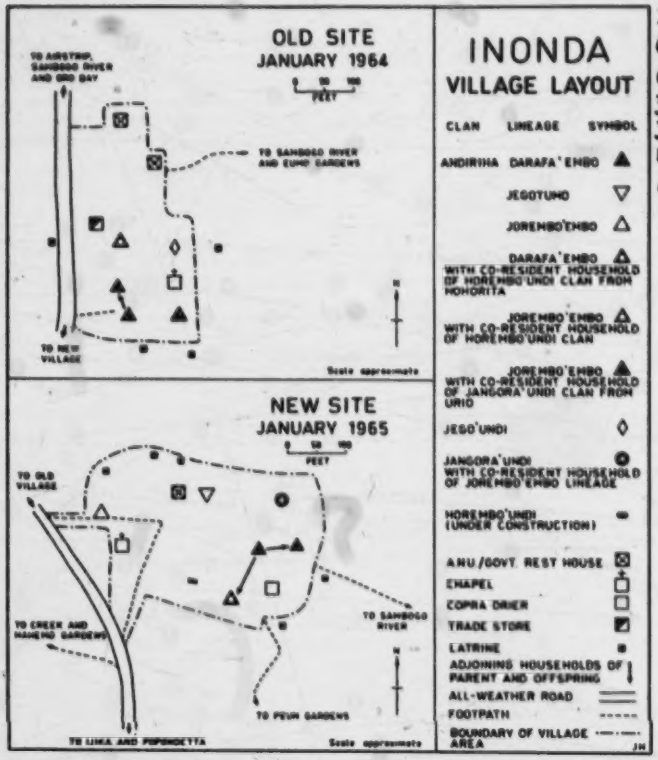

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them.

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed.

Sivepe. I stayed in Sivepe for about nine months, from September 1966

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land is lower, flatter and comparatively poor and receives about 95
131 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133 alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
This group, we believe, was the largest socio-political unit, the
[162

[TEXT CONTINUED ON PAGE 6]

[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kubuna, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

Chapter 2

The subsistence economy

a. Climate and soils

134 The neighbourhood has a warm, moist climate with an average
133 annual rainfall of 160 inches (see Appendix C).[2] Sivepe is between
132 1,250 and 1,300 ft above sea level and nights are often cool.
According to the C.S.I.R.O. soils survey (1954:11), the village is on a soil association of the Awala land system which has an 8-12 inch very dark brown top soil. Chemical tests suggest that these
133 loams are fertile, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. The terrain is characterised by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mt Lamington (5,634 ft) into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system.

823 The local people recognise 5 types of soil based on differences
134 of colour, texture and moisture.[1]

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[1] (a) Hohori - any red soil; 2 subtypes are distinguished: i. without sand. This is popular for cultivation; ii. sandy. Avoided if possible as taro does not grow well in it.
(b) Gindiri - any soil which is stony or has a high sand fraction. It may be used for cultivation but in the dry season taro grown in it becomes stunted and the corms are small.
(c) Mume - this soil is the predominant type in the area. It is the dark brown loam described in the C.S.I.R.O. report as covering almost the whole of the soil association. It is certainly the most widely used and together with Hohori, type i., it gives the best yields.
(d) Pusu - any clay. Taro growth is stunted.
(e) Pegara - swampy or waterlogged soils. These are sometimes used during a dry season.

A, [See Category 132, p. 109--Analyst]

433 The C.S.I.R.O. (1954:12) reported that a wide range of annual and perennial crops which will grow at altitudes up to approximately 1,500 ft and do not require a marked dry season could be grown successfully. The report commented that the whole land system is a very good agricultural area and that this is reflected in the relatively dense population,

> a factor which under the present system of native agriculture will influence the extension of European agriculture. The potentialities of the area, however, far exceed the present land use, which means there is scope in this area for the successful application of extension work directed to the improvement of native agriculture and horticulture.

137 The natural vegetation of the area is a rainforest climax (Pometia pinnata-chisocheton sp. Alliance), of which very little remains. A belt of primary and secondary rainforest separates the settlements on the mountain slopes from their northern neighbours but the area south of this belt is mostly covered with more recent secondary growth in various stages of regeneration after cultivation. Isolated patches of 'kunai' grass occur (mainly Saccharum spontaneium, with some Ropbelia, Imperata spp.)[1] but their area is insignificant by comparison with the grasslands found on the Orokaiva plains.

b. The cultivation cycle

132 Over a period of 8 years the average monthly rainfall has ranged from 9.6, 7.9 and 8.2 inches in June, July and August (when rain falls about 15 days per month) to 20.9, 16.8 and 17 inches in December, January and February (with 22 wet days per month). The coefficient of seasonal variation used by Brookfield and Brown (1963:20) indicates only slight seasonal variability in the area.[2] An occasional brief drought is possible at any time, but with good soil, and no marked dry season, conditions for the growth of subsistence crops are usually favourable throughout the year and new gardens can be made as needed.[3]

[241]

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[1] District Agricultural Officer: personal communication.

[2] The coefficient of seasonal variation was 0.30. This measure is obtained by calculating from rainfall figures the standard deviation of monthly means from the mean of the monthly means and then dividing the standard deviation by the mean of the monthly means.

[3] We found no effects in this area of the rainshadow zone referred to by Keesing, 1951:6.

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepa is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
[164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening was appreciably lower during each of 3 weeks which were marked by
[797] the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepa people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

Appendix C

Monthly rainfall for Awala, 1955-62 (inches)*

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1955	21.48	12.15	17.71	5.51	11.47	2.35	7.17	7.26	16.91	5.50	18.33	19.03	145.07
1956	14.16	13.85	6.22	12.76	3.92	2.41	10.27	4.76	11.45	8.42	16.17	20.61	125.00
1957	9.08	11.36	34.80	19.05	10.55	8.29	4.85	11.55	12.12	8.88	24.03	27.14	181.70
1958	24.90	18.27	23.11	17.59	6.51	13.06	4.14	8.53	22.30	15.86	8.52	23.45	186.24
1959	11.32	24.58	8.17	23.30	15.11	14.22	11.56	2.63	11.60	5.64	12.21	21.65	161.99
1960	25.67	22.70	11.41	17.10	11.29	13.62	4.29	8.69	11.67	15.26	19.35	18.64	179.69
1961	23.06	9.46	9.84	10.02	10.94	12.72	10.14	11.80	11.66	11.21	13.78	10.20	144.83
1962	4.54	23.89	13.60	11.72	17.51	9.65	10.92	10.20	8.29	13.84	9.35	26.33	159.84
Av.	16.77	17.03	15.61	14.63	10.91	9.57	7.92	8.18	13.25	10.58	15.22	20.88	160.55

Days when rain fell

1955	24	19	19	19	19	8	18	17	17	12	24	23	219
1956	19	23	20	23	11	11	15	19	21	21	18	20	221
1957	20	17	26	21	13	9	21	18	18	17	18	21	219
1958	22	19	27	25	13	22	13	13	21	19	18	28	240
1959	21	25	22	25	20	24	18	12	18	14	21	23	243
1960	25	25	23	23	14	18	8	18	11	22	21	23	231
1961	25	16	22	21	22	17	11	17	13	18	20	24	226
1962	12	21	19	20	16	11	8	10	8	16	10	25	176
Av.	21	21	22	22	16	15	14	15	16	17	19	24	222

*Figures supplied by Mr C.E. Searle.

(b) Climate

According to Köppen's climatic classification (Köppen and Geiger 1930) the whole area falls within the Af category (humid tropical lowland), the uniformly high temperatures and rainfall providing a long growing season calculated by the CSIRO to be effectively twelve months in 9 years out of 10.

Two seasons, commonly referred to as 'wet' and 'dry', are definable in terms of wind direction, rainfall and humidity and are clearly recognised by the Orokaiva. The 'wet' season, from December to March, is characterised by north-easterly or north-westerly winds, high temperatures and humidities and late afternoon thunderstorms, [illegible] the 'dry' season, from May to October, experiences north-easte[illegible]ds, lower temperatures (particularly at night),[1] less cloud cove[illegible]ore irregular rainfall, both in frequency and intensity.

The mean annual rainfall almost everywhere exceeds 100 inches, increasing inland to 157.6 inches at Awala on the lower slopes of Mt Lamington. The wettest and driest months are December and July respectively, the precipitation ratio between the two being in the range of 5:1 or 5:2. The rainfall pattern is not strongly seasonal by Papua-New Guinea standards and the element of seasonality decreases from the coast inland, from a coefficient of seasonal variation of 0.34 at Buna to 0.27 at Awala. Further, the deviations from the mean reveal that there is only a moderate variability of rainfall; nevertheless it (as revealed in Table 1:1) has considerable bearing on the rhythm of agricultural activities and economic life in general. While the pattern of food production clearly varies with the two dominant seasons,[2] the time-consuming tasks of clearing bush and establishing new gardens show no definite pattern other than a close association with the occurrence of dry periods. Thus the availability of labour and its application demand some flexibility to accord with the vagaries of weather.

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[1] Mean maximum temperatures over the year are in the range of 83° to 88°F., relative humidity at 9 a.m. is 80 per cent falling to 72 per cent at 3 p.m., and mean minimum temperatures are from 65° to 70°F. These figures are derived from observations made at Sivepe on the lower slopes of Mt Lamington. Temperatures can be assumed to be 5°F. higher at the coast and the diurnal range slightly less.

[2] Distinguished by the Orokaiva as garepa - the wet season - when the staple taro (Colocasia) is in production, and huvira - the dry season - when the people must resort to sago, breadfruit and less favoured foods.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokolva QJ23

132

Table 1:1

Popondetta sub-district: some rainfall characteristics
(inches)

	Station		
	Buna* (28 yrs)	Popondetta* (8 yrs)	Awala** (11 yrs)
Mean annual rainfall	120.37	93.64	157.57
Standard deviation	20.13	13.94	19.40
Coefficient of seasonal variation	0.34	0.32	0.27
Mean month: wettest	14.31 (Dec.)	14.05 (Dec.)	20.37 (Dec.)
driest	4.24 (Aug.)	2.96 (Jul.)	7.78 (Jul.)
Extremes: mean wettest			
Max.	33.57	16.82	27.14
Min.	3.70	8.99	10.20
mean driest			
Max.	14.61	10.67	11.56
Min.	0.03	0.08	4.14
annual			
Max.	167.80	109.38	186.34
Min.	70.17	69.98	125.00

Sources. * Commonwealth Bureau of Meteorology, Melbourne.
** Mr C.E. Searle, Awala Estate.

241 cultivators in New Guinea.[1] This was due partly to changing emphases in the pattern of work between the two surveys, particularly the greater amount of time used for external agencies and in the inception of two communal enterprises (the establishment of a cash crop garden and preparations for the transfer of the village to a new site). Three other factors must be taken into account. [125] Firstly, a slightly different survey technique was employed by Rimoldi. The 1964 measurements were confined to a single point in time, whereas Rimoldi measured all the gardens and then added any extensions which occurred during the survey period (about six weeks) without deducting any areas which might have gone out of [132] production. Secondly, 1964 proved to be a highly unseasonal year at Sivepa in that recorded rainfall in August exceeded that in December (1,542 and 1,416 points respectively) and the number of rain days was the same in each month (24). This disrupted the cycle of agricultural activities and prevented the customary clearing of forest for new gardens during dry weather. For this reason, figures for areas planted but not producing (see Table 4:1) approximate closely to Rimoldi's, whereas cleared and producing areas fall far short.[2] Thirdly, two household heads within the group surveyed in 1964 had been absent from the village for two to three months before the data were collected, and third's activities were partially diverted by his involvement in a contract to build a house at Saiho hospital, and most of the community were involved for several weeks in building the new road to Sasembata and in erecting classrooms on the mission station.

245 (b) Economic trees and livestock

The holdings of economic trees (Table 4:3) indicate their importance for subsistence. Breadfruit comprises a very large proportion of the intake of starches at the onset of the dry season and only when most of it has been harvested do the people resort to sago-making. Areca is chewed by almost all adults, while the milk of the green coconut is drunk as refreshment and the meat grated to use in preparing staple foods. Hauga (Canarium sp.) nuts, when in season, are gathered and consumed largely by children.

[130] All economic trees, except for the recently introduced orange, grow wild in the bush but are claimed as individual property. Several, particularly coconut, areca palms and hingi trees, are also planted in gardens and on the periphery of the village.

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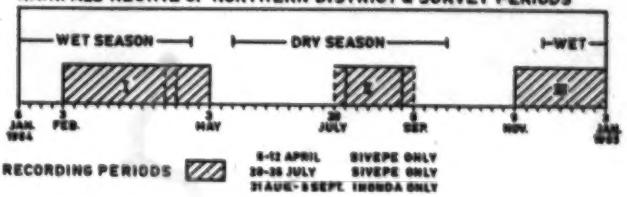
[1] See Barrau 1958:32; Brookfield 1962:245, 251; Bureau of Statistics 1963:14.

[132] [2] Similarly, a long unseasonal dry spell occurred during the last few weeks of Rimoldi's survey with the consequent extensive clearing of land for new gardens.

FIGURE 5:1

RAINFALL REGIME OF NORTHERN DISTRICT & SURVEY PERIODS

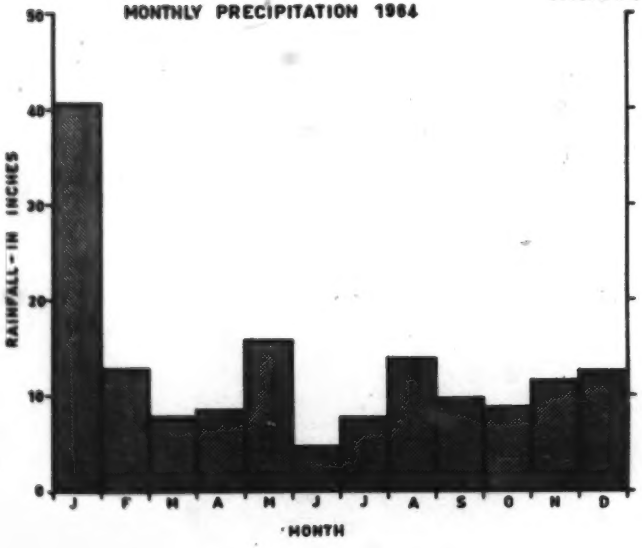


On account of periodic variations in the size of the samples and so in the number of man-days covered in each survey week (due to permanent arrivals and departures plus temporary absences), activities performed are everywhere expressed in terms of 'hours per man-day' and 'per man-week' actually resident, residence being defined as including time spent sick. This conversion of all data from totals to means obscures the distinction between activities occurring regularly, such as subsistence gardening, and those which occur only sporadically, for example, house construction, particularly where the latter are characterised by short periods of intensive work. However, the conversion does permit realistic estimates to be made of the labour requirements of different tasks over extended periods.

All the data, with the exception of those involving absences in excess of twenty-four hours from the village and periods incapacitated through sickness, were recorded on punch cards and processed by computer. However, in the case of absences and sickness the data were of a more imprecise nature and only simple manual analyses were carried out.

AWALA
MONTHLY PRECIPITATION 1964

FIGURE 6:4



much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

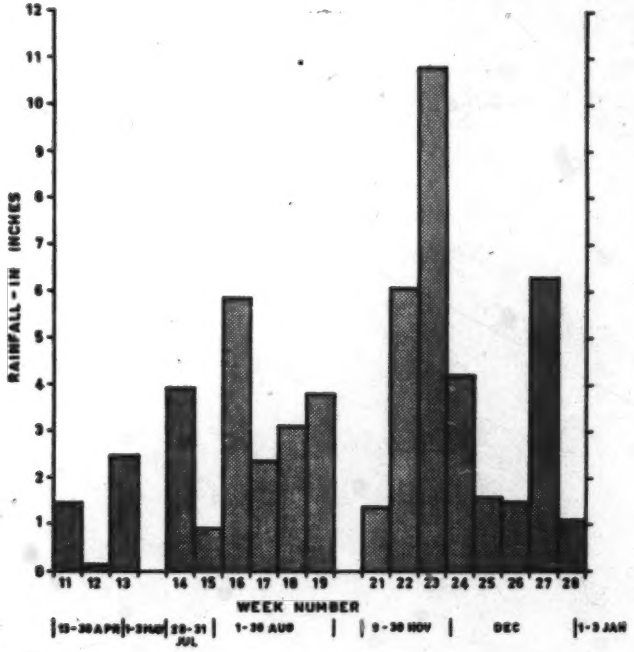
In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ina, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

132

SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 20 ONLY) FIGURE 6:5



512 Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on [197] the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

132 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix $C_x^{A(1)}$

805 824 The Inonda people refer to the dry season as huvira because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [574] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 241 The warm moist climate is generally favourable for plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

192

APPENDIX C

Monthly rainfall for Popondetta 1955-61 (inches)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
1955	7.38	12.08	2.11	7.88	12.68	6.13	2.67	1.85	6.25	4.90	19.78	10.36	94.41
1956	8.31	8.15	5.56	6.70	1.16	2.08	2.10	3.23	5.74	5.94	9.23	14.42	72.02
1957	7.41	4.04	17.40	7.60	4.23	2.95	1.91	3.90	5.50	10.60	7.14	16.82	89.60
1958	18.99	4.24	14.04	11.79	4.77	6.46	2.11	1.98	5.86	10.10	10.62	12.57	103.53
1959	8.98	16.32	9.82	17.09	8.29	6.61	3.84	0.78	8.08	4.64	9.89	12.98	102.32
1960	13.01	10.63	11.57	12.30	3.41	4.87	2.61	8.70	3.26	8.79	12.76	10.66	102.51
1961	20.34	7.20	7.04	14.80	7.12	8.23	3.50	2.27	5.93	11.79	6.30	14.64	109.18
Average	12.09	8.95	9.64	11.17	5.96	5.34	2.68	3.34	5.65	8.11	10.82	13.19	96.22

Number of wet days per month for Popondetta 1955-61

1955	14	14	10	16	15	19	10	4	13	8	21	17	163
1956	18	18	13	27	8	22	12	12	9	10	12	11	172
1957	11	13	21	25	13	16	7	12	14	13	17	21	183
1958	21	16	24	21	16	16	12	9	13	20	22	26	216
1959	16	24	16	24	16	18	13	6	13	10	25	21	202
1960	27	22	21	19	16	10	7	15	10	24	21	18	210
1961	29	17	20	18	22	8	16	14	15	16	16	18	211
Average	19.4	17.7	17.9	21.4	15.1	15.6	11.3	10.3	12.4	14.4	19.1	18.9	193

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [369] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

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THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission

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school on Waususu Point in 1909. From this time until the outbreak of World War II, Yega men began leaving their villages to work

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121 these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout the year, both in Sivepa and Inonda. The Inonda people think that the nights at Sivepa (and on the mountain generally) are rather cold and it is true that in Inonda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [821] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [789] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inonda rainfall is somewhat below that of Popondetta; Sivepa rainfall is significantly higher than at Awala. Thus Inonda usually gets 80 to 90 inches of rain per year while Sivepa gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [821] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepa; in May-September at Popondetta and Inonda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

In October the heaviest rains begin and this is the period 132 when crops grow fastest. Thus the crops planted during the dry 241 period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

241 planting is already completed for when the old people see the
221 tauga leaves drop over the newly planted gardens they say that the
824 taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

[132] 6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

[789] 7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

241 We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the ideological pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

805 In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that [439] of the European economy, notably monthly coffee sales from June to [651] December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

121 In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepe) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepe, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepe. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
350 live in Hohorita and the rest in the three other villages. The
161 total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepe, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV) developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission
A [See Cat. 116, p. End Map 13--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 0123 Orokaiva 0123 Mount Lamington

TABLE 3

MONTHLY RAINFALL FOR AWALA, 1955-62 (INCHES)*

Source: Rimoldi, 1966: 109

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1955	21.48	12.15	17.71	5.51	11.47	2.55	7.17	7.26	16.91	5.50	18.33	19.03	145.07
1956	14.16	13.85	6.22	12.76	3.92	2.41	10.27	4.76	11.45	8.42	16.17	20.61	125.00
1957	9.08	11.36	34.80	19.05	10.55	8.29	4.85	11.55	12.12	8.88	24.03	27.14	181.70
1958	24.90	18.27	23.11	17.59	6.51	13.06	4.14	8.53	22.30	15.86	8.52	23.45	186.24
1959	11.32	24.58	8.17	23.30	15.11	14.22	11.56	2.63	11.60	5.64	12.21	21.65	161.99
1960	25.67	22.70	11.41	17.10	11.29	13.62	4.29	8.69	11.67	15.26	19.35	18.64	179.69
1961	23.06	9.46	9.84	10.02	10.94	12.72	10.14	11.80	11.66	11.21	13.78	10.20	144.83
1962	4.54	23.89	13.60	11.72	17.51	9.65	10.92	10.20	8.29	13.84	9.35	26.33	159.84
Av.	16.77	17.03	15.61	14.63	10.91	9.57	7.92	8.18	13.25	10.58	15.22	20.88	160.55

DAYS WHEN RAIN FELL

1955	24	19	19	19	19	8	18	17	17	12	24	23	219
1956	19	23	20	23	11	11	15	19	21	21	18	20	221
1957	20	17	26	21	13	9	21	18	18	17	18	21	219
1958	22	19	27	25	13	22	13	13	21	19	18	28	240
1959	21	25	22	25	20	24	18	12	18	14	21	23	243
1960	25	25	23	23	14	18	8	18	11	22	21	23	231
1961	25	16	22	21	22	17	11	17	13	18	20	24	226
1962	12	21	19	20	16	11	8	10	8	16	10	25	176
Av.	21	21	22	22	16	15	14	15	16	17	19	24	222

*Figures supplied by Mr. C. E. Searle. Awala lies three miles northeast of Sivepa.

TABLE 4

MONTHLY RAINFALL FOR POPONDETTA 1955-61 (INCHES)

Source: Grocombe and Hogbin 1963: 100

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1955	7.58	12.05	2.11	7.88	12.65	6.13	2.67	1.85	6.55	4.90	19.78	10.26	94.41
1956	8.31	8.15	5.56	6.70	1.16	2.08	2.10	3.23	5.74	5.94	9.23	14.42	72.02
1957	7.41	4.04	17.40	7.60	4.33	2.95	1.91	3.90	5.50	10.60	7.14	16.82	89.60
1958	18.99	4.24	14.04	11.79	4.77	6.46	2.11	1.98	5.86	10.10	10.62	12.57	103.53
1959	8.98	16.32	9.82	17.09	8.29	6.61	3.84	0.78	8.08	4.64	9.89	12.98	102.32
1960	13.01	10.63	11.57	12.30	3.41	4.87	2.61	8.70	3.26	8.79	12.76	10.66	102.51
1961	20.34	7.20	7.04	14.80	7.12	8.25	3.50	2.27	5.93	11.79	6.30	14.64	109.18
Av.	12.09	8.95	9.64	11.17	5.96	5.34	2.68	3.24	5.85	8.11	10.82	13.19	96.22

NUMBER OF WET DAYS PER MONTH FOR POPONDETTA 1955-61

1955	14	14	10	16	15	19	10	4	13	8	21	17	163
1956	18	18	13	27	8	22	12	12	9	10	12	11	172
1957	11	13	21	25	13	16	7	12	14	13	17	21	183
1958	21	16	24	21	16	16	12	9	13	20	22	26	216
1959	16	24	16	24	16	18	13	6	13	10	25	21	202
1960	27	22	21	19	16	10	7	15	10	24	21	18	210
1961	29	17	20	18	22	8	18	14	15	16	16	18	211
Av.	19.4	17.7	17.9	21.4	15.1	15.6	11.3	10.3	12.4	14.4	19.1	18.9	193

Note: Popondetta lies 11 miles west of Inonda.

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

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S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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Fig. 1. Popondetta Sub-District: generalised land classification

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use[1], Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
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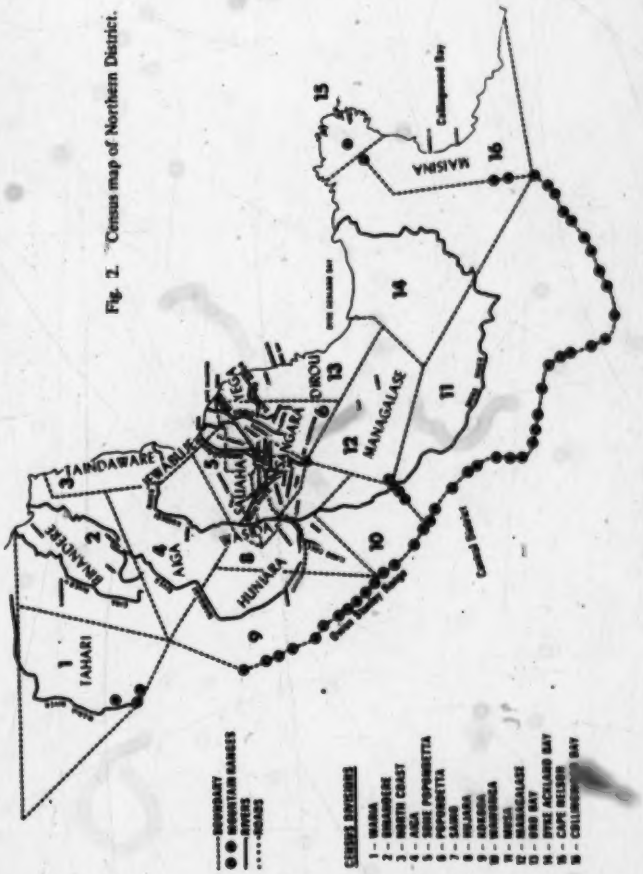

Fig. 2. Census map of Northern District.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
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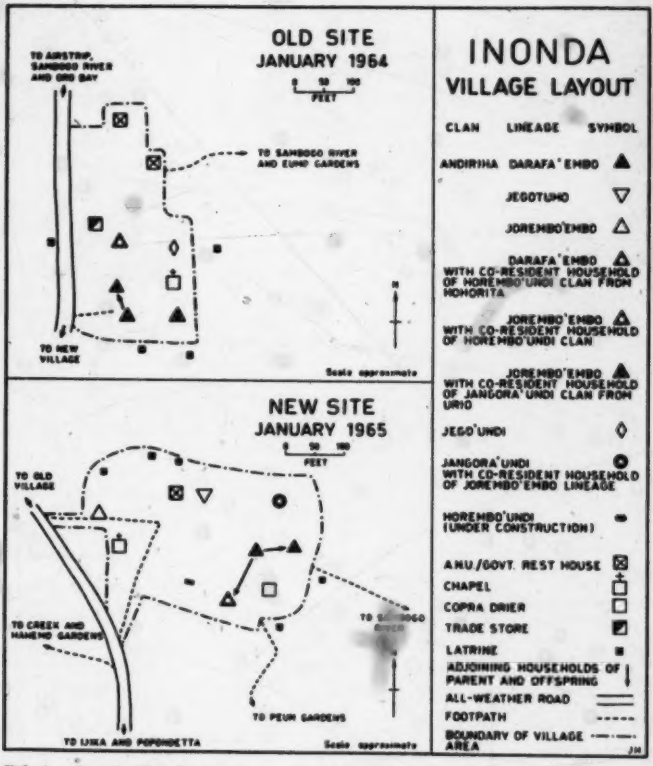

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
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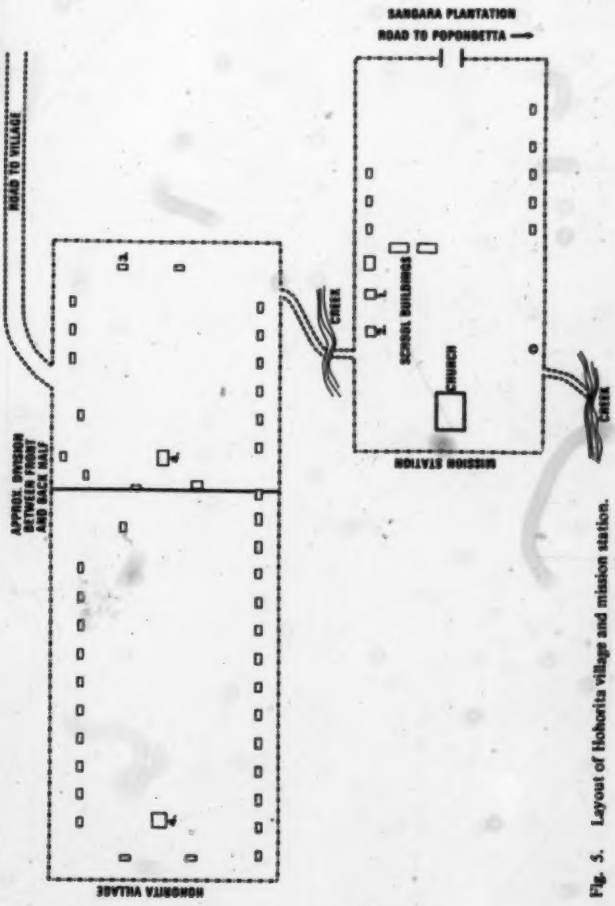

Fig. 5. Layout of Hoborita village and mission station.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them.

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed.

Sivepe. I stayed in Sivepe for about nine months, from September 1966

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and
105 Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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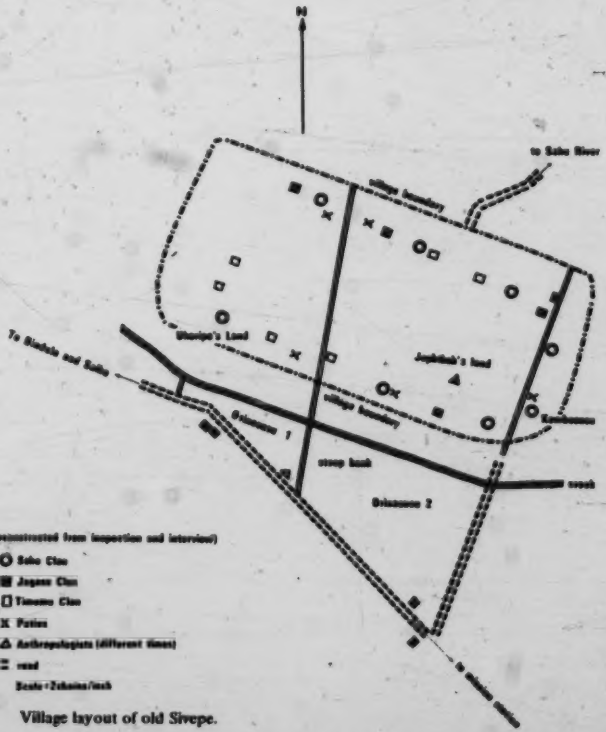

Fig. 6. Village layout of old Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud.

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile.

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater.

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage.

3 Orokaiva: *jna*; botanical: *saccharum edule*.

5: Schwimmer E-4,5 (1966-1967) 1973
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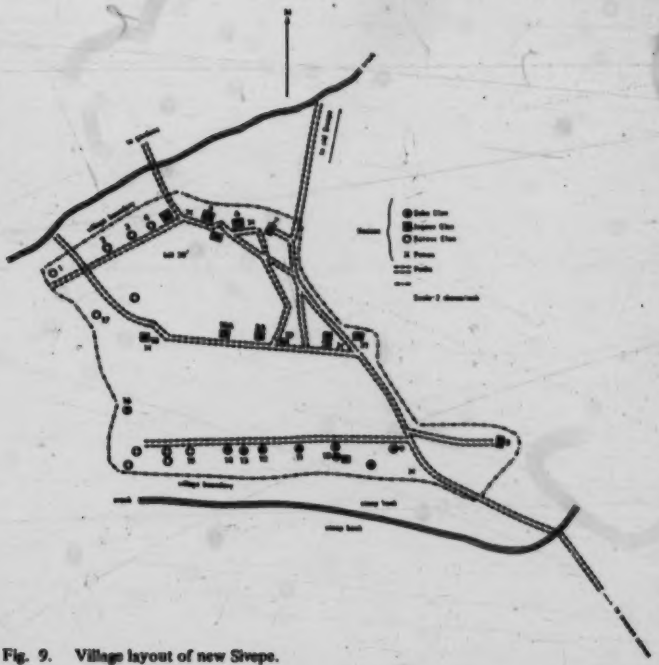

Fig. 9. Village layout of new Sivepe.

361 616 614 621 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in 1963 and 1964 show no formal separation between the clans. Some neighbouring villages, such as Garombi, however, did allocate one side to each of their two clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 616 121 I have now shown most of the evidence for direct marriage exchange and forms of dual organisation. The question that remains to be answered is why this system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

5: Schwimmer E-4,5 (1966-1967) 1973
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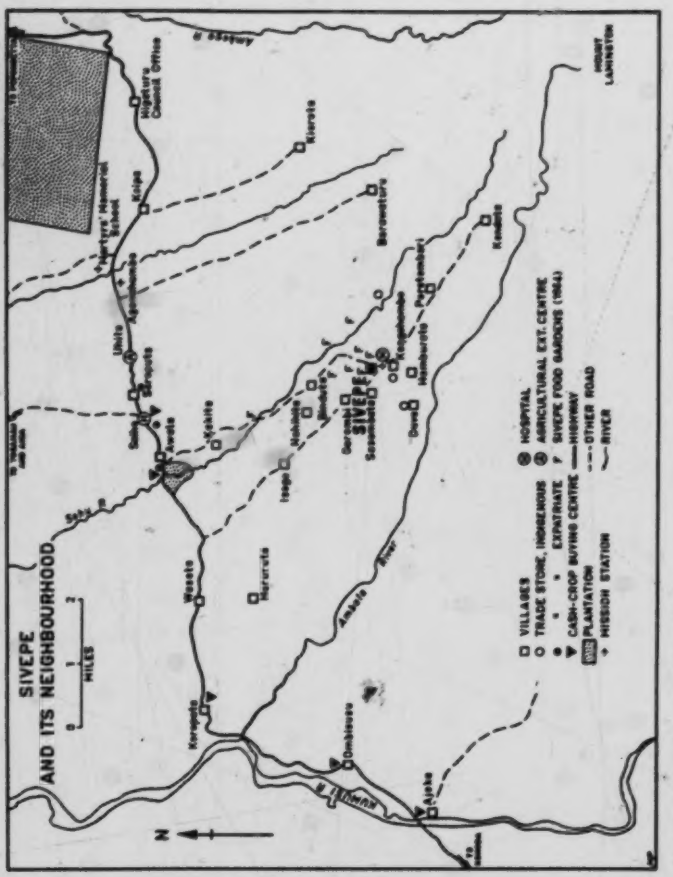

Fig. 10. Sivepe and its neighbourhood.

the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce.

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low, (1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success.

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P.A.R. 1949-50 : 17 show that 40,100 man-hours were worked on the 56 acres of coffee then in production and that £767. 12. 3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked.

Appendix F

The Orokaiva villager's experience of cash cropping

241 177 [114]

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

245 [258] 248 465

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

245 [465] [133]

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only ....

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee.

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away ....

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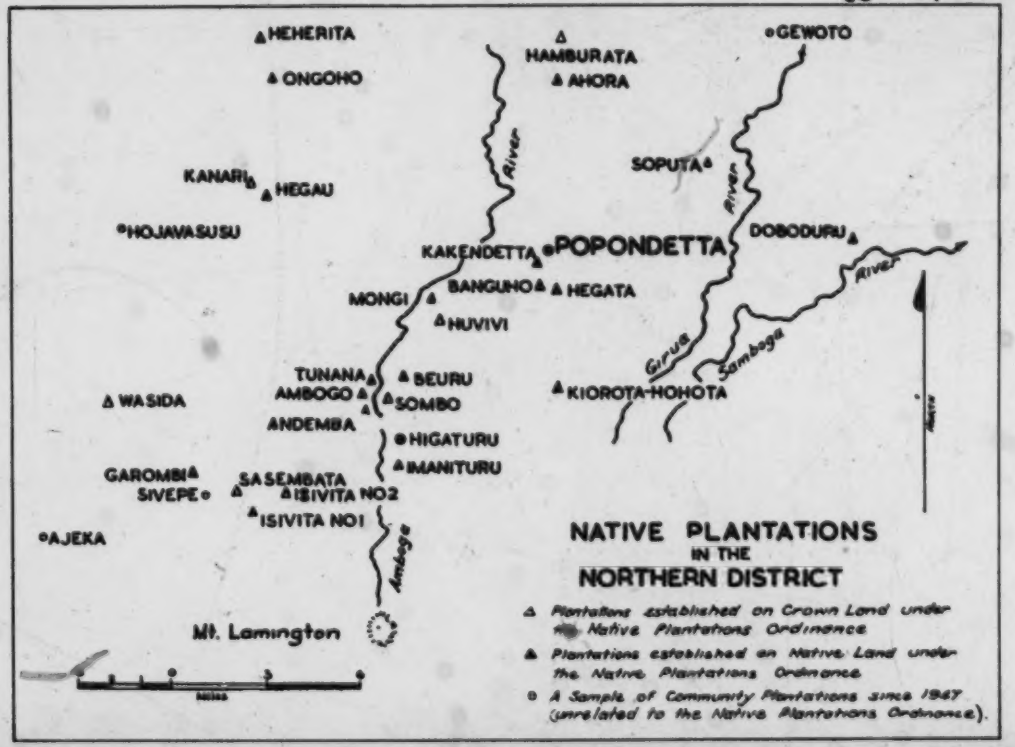

6: Crocombe E-4,5 (1963) 1964 0J23 Orokaiva 0J23

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land
131 is lower, flatter and comparatively poor and receives about 95 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

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[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

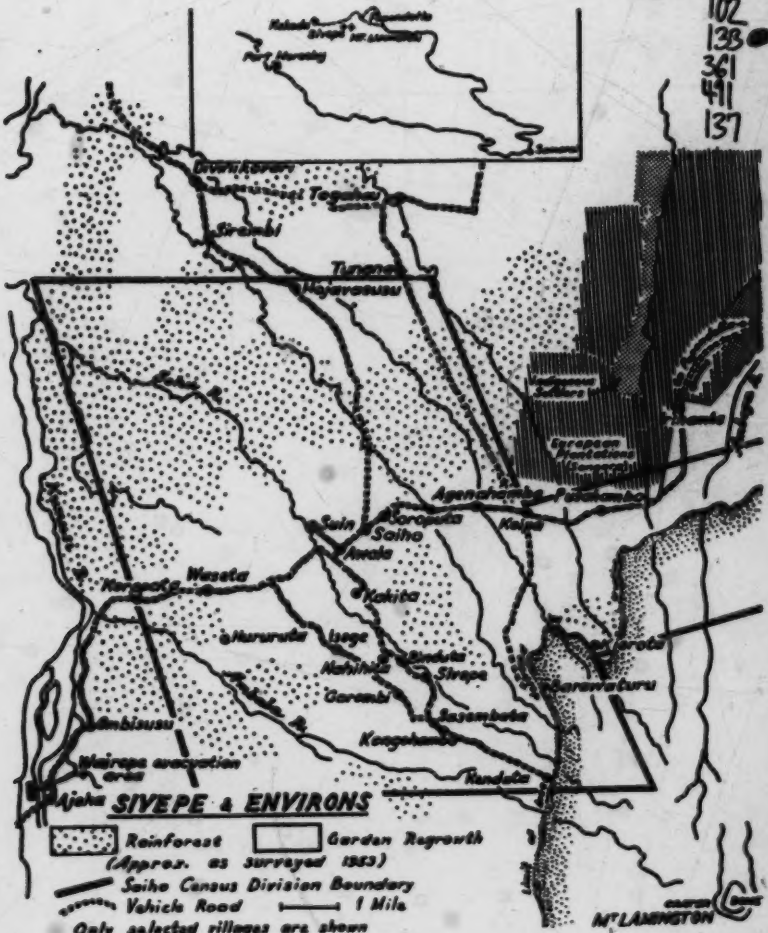
[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kubuna, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

7: Rimoldi et al. E,I-5 (1962-1963) 1966 QJ23 Orokaiva QJ23
Mountain Orokaiva
Sivepe

MAP 1



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tribe, which included Sivepe. It occupied the volcanic slopes under fairly uniform and distinctive ecological conditions. The mountain Orokaiva now include roughly the 8,000 people in the closely-settled Saiho Census Division areas, that is, the people who have been called 'Wasida' or 'Periho'. They also include the members of the few adjacent villages who are the only 'Sangara' people surviving the 1951 eruption of the volcano.

Belshaw (1951:2) reported that among the mountain Orokaiva until 1951 'the residential group...consisted of a number of separated hamlets.... Hamlets grouped themselves together under a common name, such as Wasita 1, Isivita 1, Isivita 2 etc.... Each hamlet group, or "village" in administrative parlance, was separated geographically from its neighbouring hamlet group'. The two 'villages', Isivita 1 and 2, had comprised 19 named 'hamlets' and represented the Isivita 'native district' which, Plant[1] (1951: Appendix 4) says was joined with the Sasembata (8 hamlets), Koroputa, Wasita, Awala, Soroputa, Sairopi, Mumuni and Wairopi districts[2] to form the Periho tribe. This 'closely approximates to' what Williams called the Wasida tribe.

Shortly before the eruption of Mt Lamington in 1951, Sivepe, Binduta, Mahihita, Pusahambo, Korinasusu and Heherita[3] were grouped under the name of Awala 2 and had a total population of 250,[4] compared with the range of 150 to 400 which Belshaw (1951:2) attributes to 'hamlet groups' in the area. There is a radical difference in size between the small hamlet described by Belshaw and the characteristic nucleated village of post-eruption years (excluding interim evacuation 'camps'). Nevertheless, we hereafter refer to both as a 'village' when not quoting. This does not

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1 Plant uses the term 'village group' for Belshaw's 'hamlet group' or 'village'. Williams (1930:131) refers to Belshaw's 'hamlet' sometimes as a 'village' and sometimes as a 'village group'.

2 He earlier (1951:3) omitted Mumuni and Wairopi - see p.31. On Map 1 see Hururuta for Mumuni District, and Ombisusu-Ajeka area for Wairopi District; the Sairopi people are about 4 miles south of the Mumuni.

3 The last 3 'hamlets' were not re-formed after the eruption; another which was established about this time took the name Awala No.2.

4 In a sample of 50 nearby hamlets in other groups in the Saiho Census Division the average hamlet size was 36 persons as against 41 in this group. Note also that in 1923 the Awala hamlets (including those in Awala 1) may have numbered 15 (Williams:W.83).

Chapter 2

The subsistence economy

a. Climate and soils

134 (133) 132 The neighbourhood has a warm, moist climate with an average annual rainfall of 160 inches (see Appendix C). Sivepe is between 1,250 and 1,300 ft above sea level and nights are often cool. According to the C.S.I.R.O. soils survey (1954:11), the village is on a soil association of the Awala land system which has an 8-12 inch very dark brown top soil. Chemical tests suggest that these loams are fertile, rich in nitrogen and phosphorus. The fine-
133 textured subsoils range from 10 to 22 inches in depth. The terrain is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mt Lamington (5,634 ft) into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system.

823 134 The local people recognize 5 types of soil based on differences of colour, texture and moisture.[1]

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[1] (a) Hohori - any red soil; 2 subtypes are distinguished: i. without sand. This is popular for cultivation; ii. sandy. Avoided if possible as taro does not grow well in it.
(b) Gindiri - any soil which is stony or has a high sand fraction. It may be used for cultivation but in the dry season taro grown in it becomes stunted and the corms are small.
(c) Mume - this soil is the predominant type in the area. It is the dark brown loam described in the C.S.I.R.O. report as covering almost the whole of the soil association. It is certainly the most widely used and together with Hohori, type i., it gives the best yields.
(d) Pusu - any clay. Taro growth is stunted.
(e) Pegara - swampy or waterlogged soils. These are sometimes used during a dry season.

A, [See Category 132, p.109--Analyst]

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could [431] in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for [435] distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

245 e. Economic trees

[131] Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. [133] The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two [137] citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

7: Himaldi et al. E,I-5 (1962-1963) 1966 GJ23 Orokaiva GJ23
Mountain Orokaiva
Sivepe

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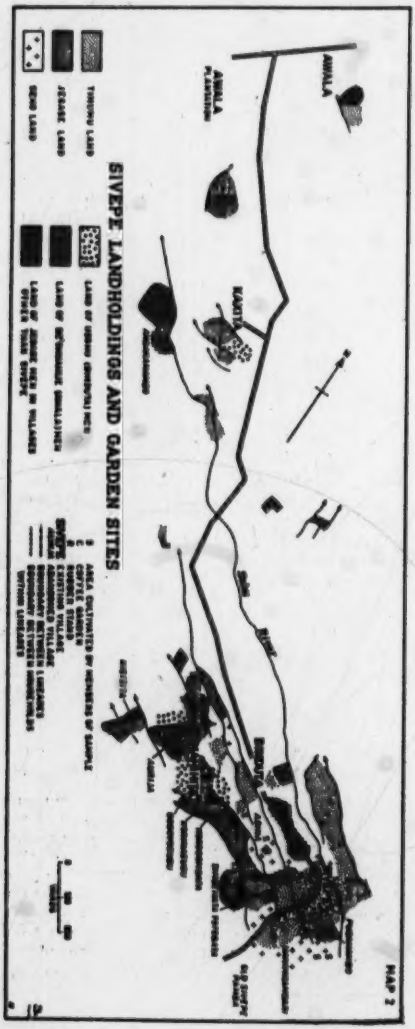

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Chapter 1

The physical and social setting

This chapter summarises the physical and social background to current attitudes to cash cropping among the Orokaiva. 128

The physical environment

(a) Landforms (see Map 1)

Lying between the main New Guinea cordillera and the Pacific Ocean, the Popondetta Sub-district[1] has a great variety of landforms and soils and, to a lesser extent, of vegetation.[2] Bounded on the south-west by the foothills of the Owen Stanley Range (4,000 ft) and on the south by Mt Lamington[3] and the Hydrographers Range (4,000 to 5,000 ft), the area comprises a broad plain sloping gently north-eastwards to the Pacific Ocean. Three elements may be distinguished within it: strongly dissected piedmont terraces, alluvial plains of volcanic materials (to the north-east of Mt Lamington) and flood plains from 10 to 25 miles wide extending from the terraces to the coast. All characteristically support primary or regrowth lowland forest except in the relatively drier and sandy areas, particularly on the plains north-east of Mt Lamington, where there are extensive stretches of grassland. 131 133 133 [137]

The CSIRO (Division of Land Research) considers (1964:17) that although there is more poor than good land in this area, 'some of the best land in the Territory' occurs on the gentle northern foot slopes of Mt Lamington and in parts of the flood plains where fertile volcanic soils and stratified sediments with a high organic content have developed. The major factors limiting land use are steepness of slopes in the mountain zone, and poor drainage and flooding in the lowlands. Soil deficiencies do not appear to be a serious limiting factor. 311 133

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1 An area of 3,712 square miles.

2 The following description is derived from CSIRO 1964:10-15.

3 A volcano which last erupted in 1951, resulting in extensive destruction and loss of life.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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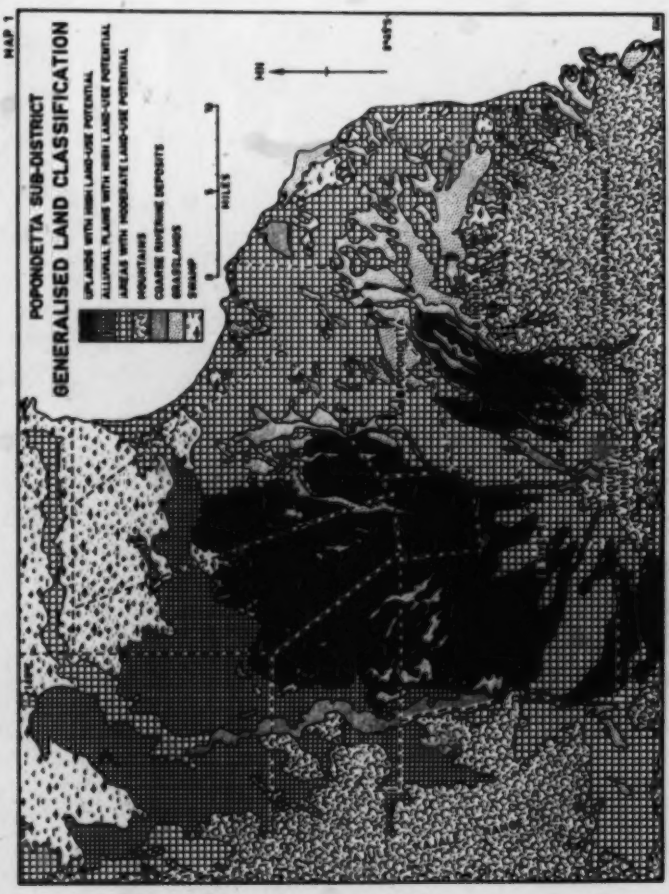

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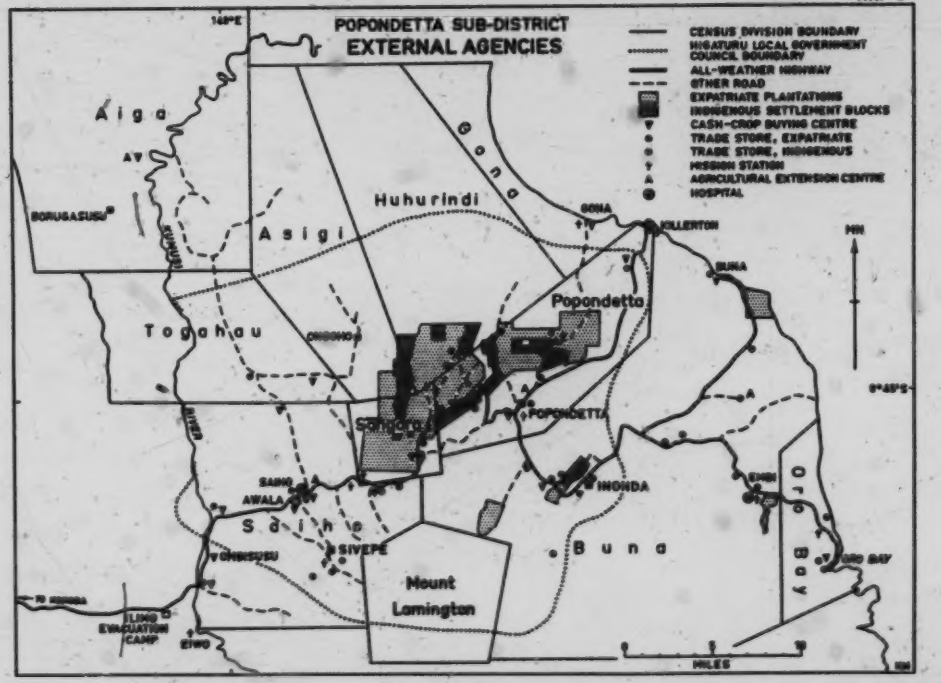
MAP 2



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Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is
137 characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-
311 use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

301 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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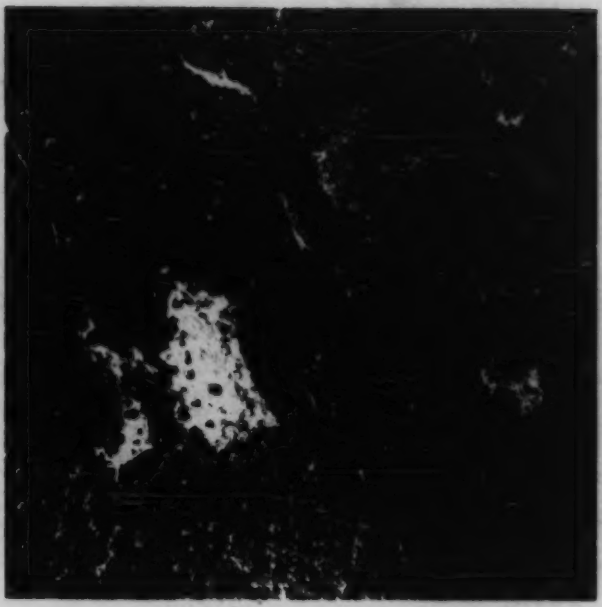
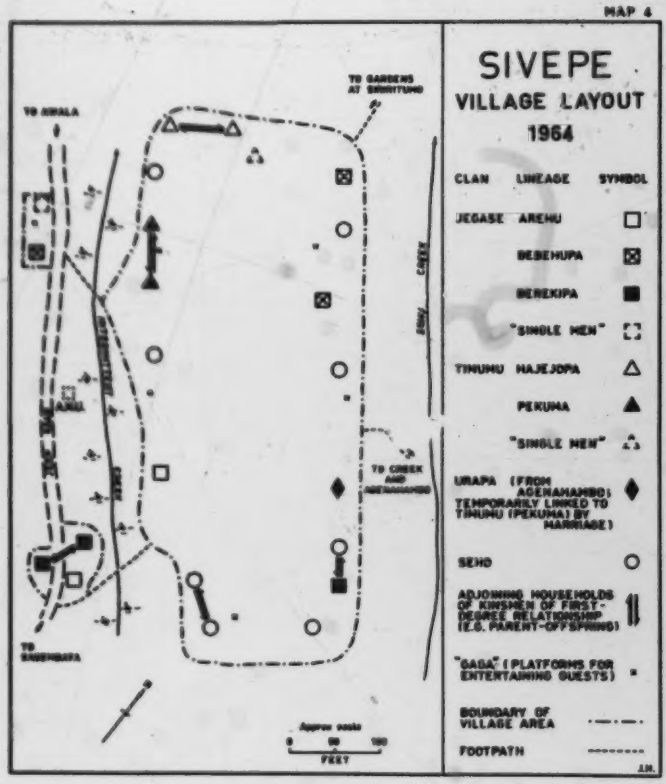


Plate 1. Sivepe - a 'line' village located in a forest clearing adjacent to the Sohu river and a minor vehicular road linking Sasembata and Awala. (Vertical photograph, scale 1:2,200.)

B: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

MAP 4



8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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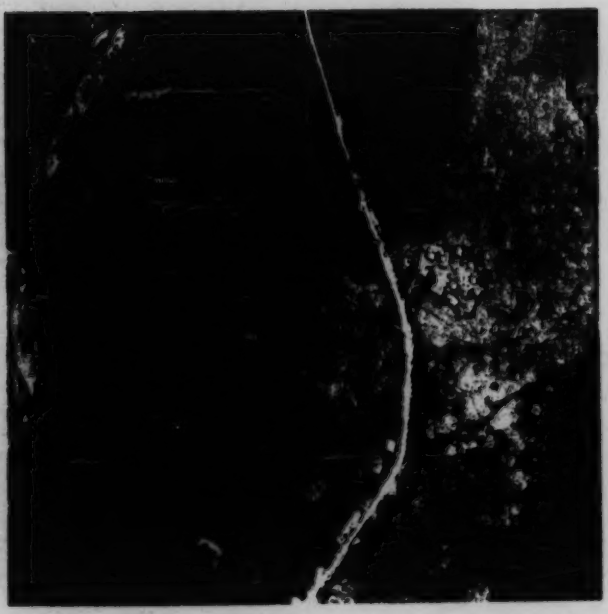

Plate 2. Inonda - the new village situated close to the grassland/forest boundary. The main Popondetta-Oro Bay road runs between the village and the Girua river.
(Vertical photograph, scale 1:4,200.)

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Buhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 [368] [131] The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them [366] by a former resident of Inonda and several others from nearby [368] villages. There are five trade stores on or near the blocks, two [133] of them expatriate-owned, and a new Administration school. This [506] latter is not used by the Inonda people, although they believe it [494] to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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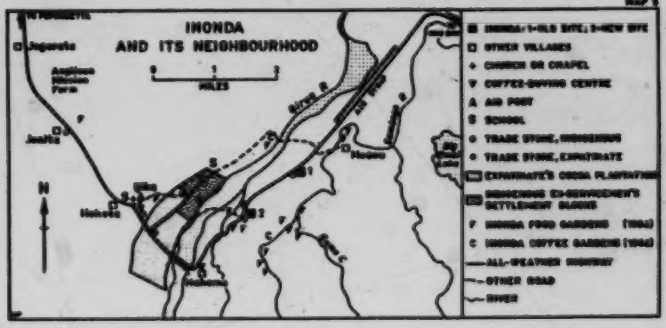
MAP 5



B: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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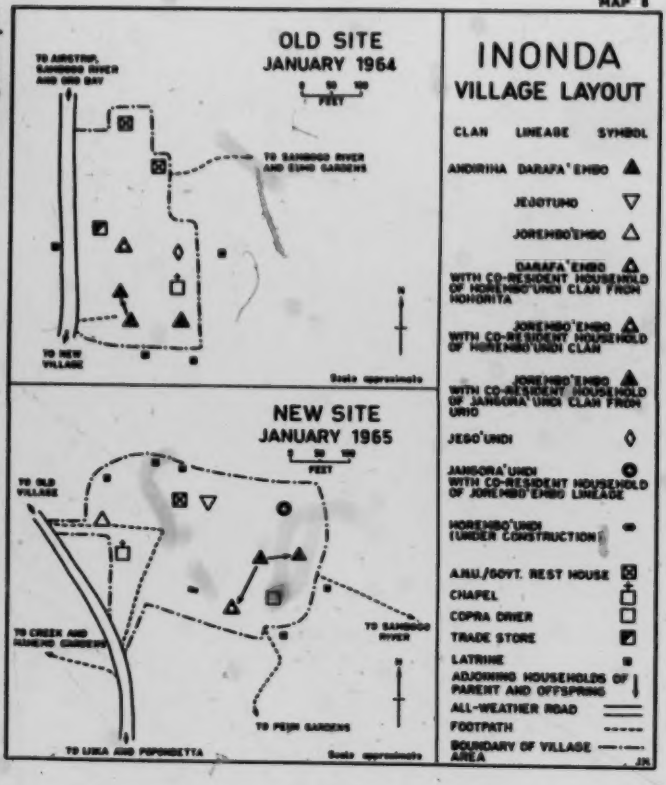
MAP 8



Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

(1) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

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[133]

then sweet potato and minor crops. After the Mt Lamington eruption, several rivers flooded and, with the exception of Mamoko's, all the Inonda people's yam gardens were destroyed. The supply of yams has gradually been increased from those surviving in his garden, but he and his sons are still the only people with large holdings. Mamoko spends a considerable amount of time assisting others in subsistence activities; in particular, he cleared and maintained a sweet potato garden on behalf of the widow and also helped her in fencing, in erecting a yam storage house and in constructing her house on the new village site. He also spent 30 hours helping his son to make sago. His eldest son's wife and the widow often harvest in his gardens and cook for him. Among his other food-producing activities he spends 2.5 hours a week on hunting, using a spear and accompanied by his son's dog; he usually gives the produce to his son's wife.

[224]

Mamoko was never absent from the village for a whole day, but spent 19 days inactive through sickness. Largely because of this, he was unable to attend a number of feasts and spent less time than anyone else in this way. Like most of the men, he spends little time on council work; this and other activities related to external agencies and the monetary sector account for only 4 per cent of his time. In other words, his activities are now almost wholly subsistence-oriented, although he maintains an interest in and encourages others to plant cash crops.

Embogi. A widow aged about 51, Embogi was born in Urio village and retains close links with her kin there. Her first and second husbands, who were brothers, belonged to a subordinate branch of the main lineage in Inonda. Her third husband, who had one other wife living, died in 1962. She has a son and a daughter from this last marriage, and has remained in Inonda partly to maintain her youngest son's rights to land inherited from his father. She maintains a separate household with these two children but in August her eldest son and his wife (Marjorie) moved in with her prior to building their own house on the new village site. Embogi's second son (by her second marriage) normally lives with her but for most of the survey was staying with a classificatory father while attending the administration school at the settlement block. Her house was built mostly by this son and Mamoko, the eldest son being absent at the time at his wife's father's funeral feast in Hoherita.

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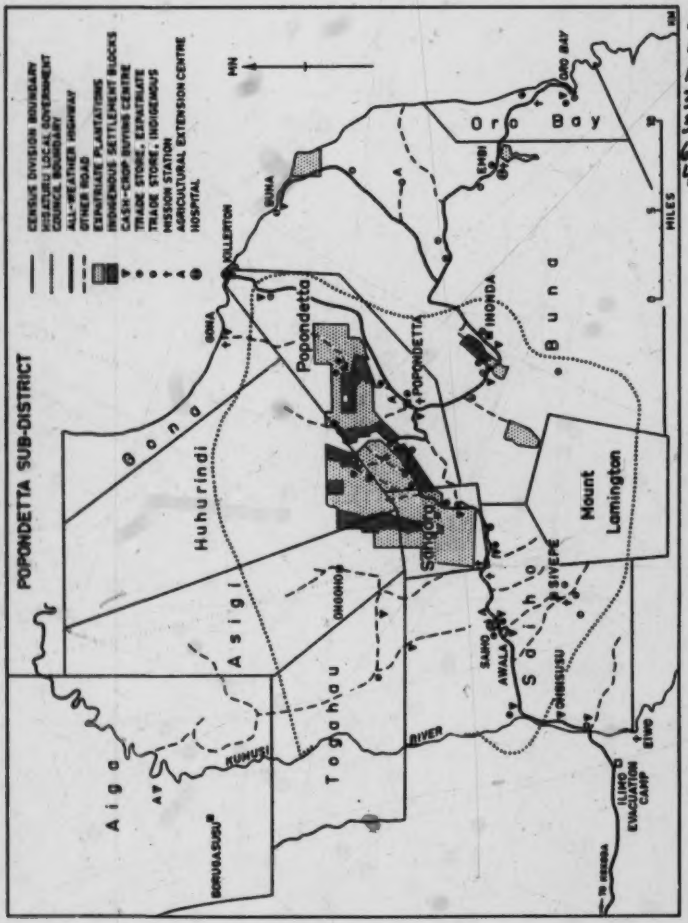
Although Embogi's working week is considerably longer than Mamoko's, it is shorter than that of most others. However, 80 per cent of her time is devoted to productive



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[p.44]

9: Kearney P-5 (1963) 1966 QJ23 Orokaiva QJ23

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Notu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepe	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pereko
Ex-service-men settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isevene, Sangara and Girua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

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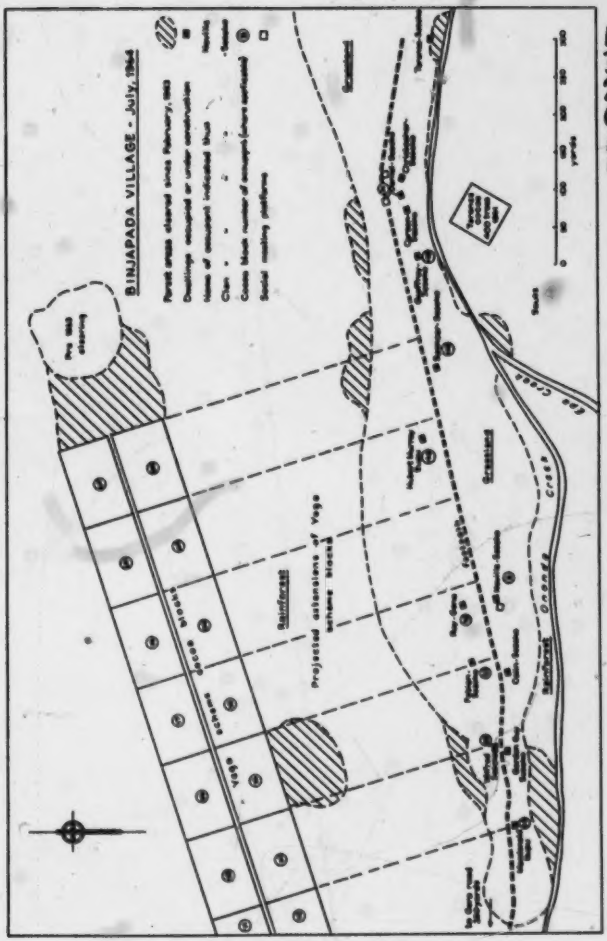

Figure 6

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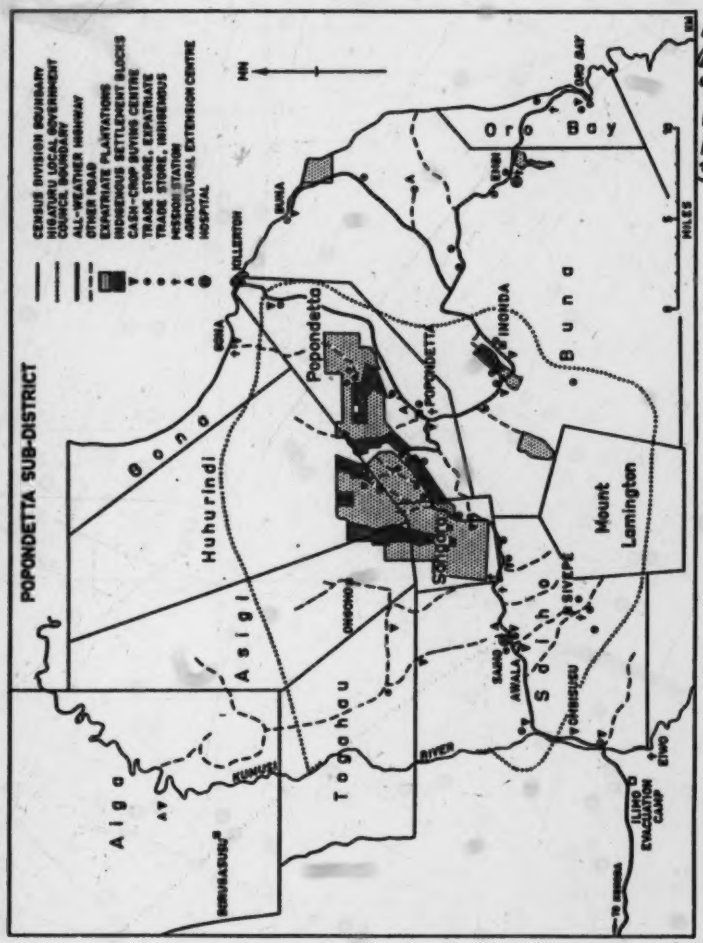
11: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega



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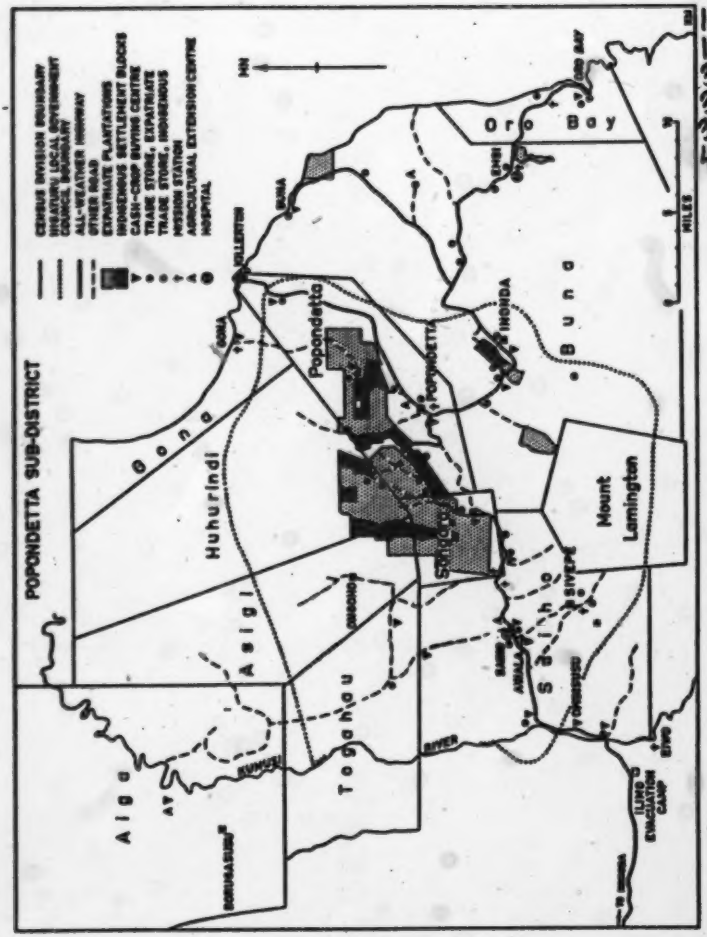
[p.11]

12: Crocombe E-5 (1962) 1966 OJ23 Orokaiva OJ23
Inonda



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[p.iii]

13: Hogbin E-5 (1962) 1966 QJ23 Orokaiva QJ23
Inonda

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CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 [811] [787] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 499 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

133 moderately sloping foothills of the northern side of the extinct strato-volcanic Hydrographers Range. The Sambogo and Girua rivers flow in a ~~northerly~~ direction draining from the Hydrographers Range and Mt. Lamington respectively. They are swiftly flowing, rocky-bedded rivers which, together with their numerous tributaries, give the area a moderate to good drainage system. To the east the drainage system in the vicinity of the Embi lakes has been blocked by recent volcanic activity and drainage is much poorer. A vast coastal plain between twenty and thirty miles wide stretches north-westwards from the Hydrographers for over sixty miles. Inonda lies at the southern end of this plain, about fifteen miles inland from the coast.

134 Soils and vegetation: The Inonda lands are classified below on the basis of the soil associations set out in the Interim Report of the C.S.I.R.O. survey of the Kumusi River-Oro Bay area.(1)

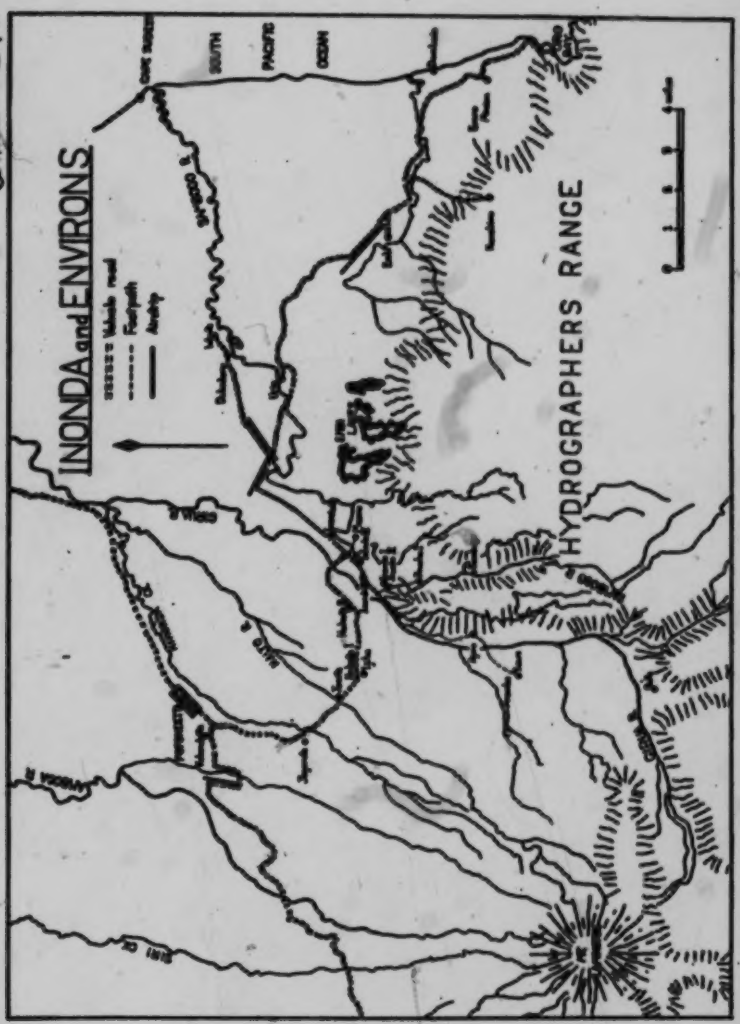
[135] (i) The Popondetta Association covers approximately one third of the Inonda lands. Its soils characteristically have a black to very dark brown topsoil underlain by a yellowish grey volcanic sand subsoil and are usually moderately well drained. They are covered with kunai grass (predominantly Imperata sp.) or savannah and are not used by the people for food gardens because of the difficulty of freeing the ground from grass roots. Because the land is flat there may be some potential for mechanized farming on soils of the Popondetta Association, provided that their natural moderate fertility can be improved or at least maintained under cultivation.(2)

Associated with these soils are small areas of fine textured, recent, alluvial soils, usually covered with forest or

(1) C.S.I.R.O. (Land Research and Regional Survey Section) Interim Report on the Description and Assessment of the Land Systems and Soil Associations in the Kumusi River-Oro Bay Area, Northern Division, Papua. (Unpublished Record) 54/2. June, 1954.

(2) There is still some doubt as to the suitability of this soil for mechanized agriculture as there is a tendency for the soil structure to disintegrate under intensive cultivation.

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda



14: Crocombe & Hogbin E-S (no date) 1963 QJ23 Orokaiva QJ23
Inonda

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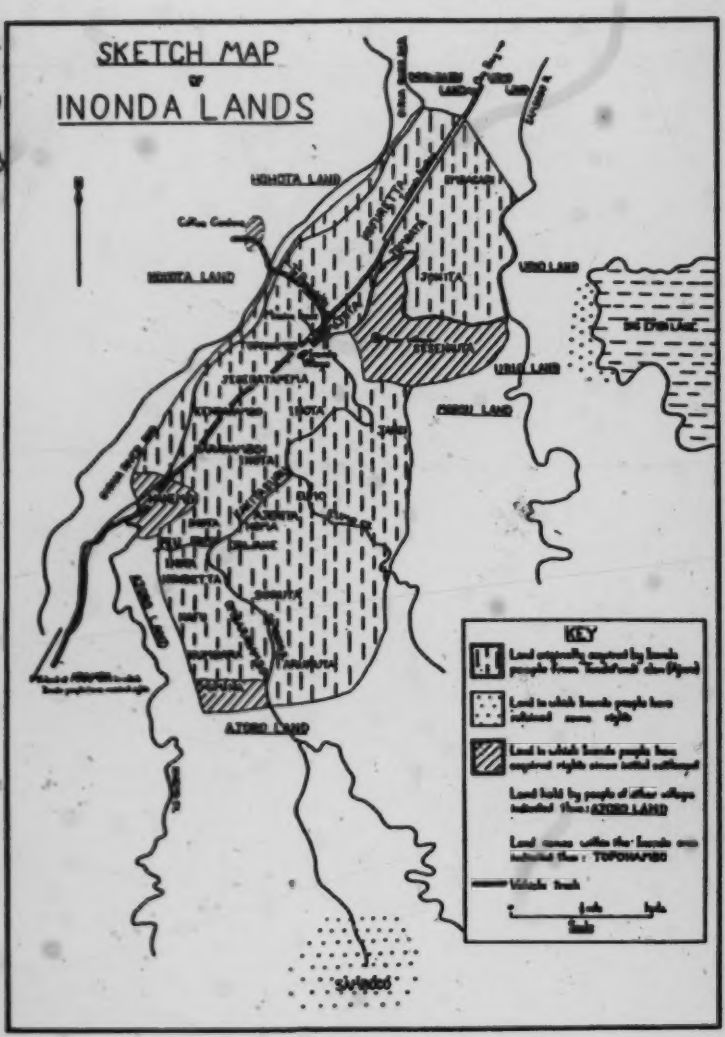

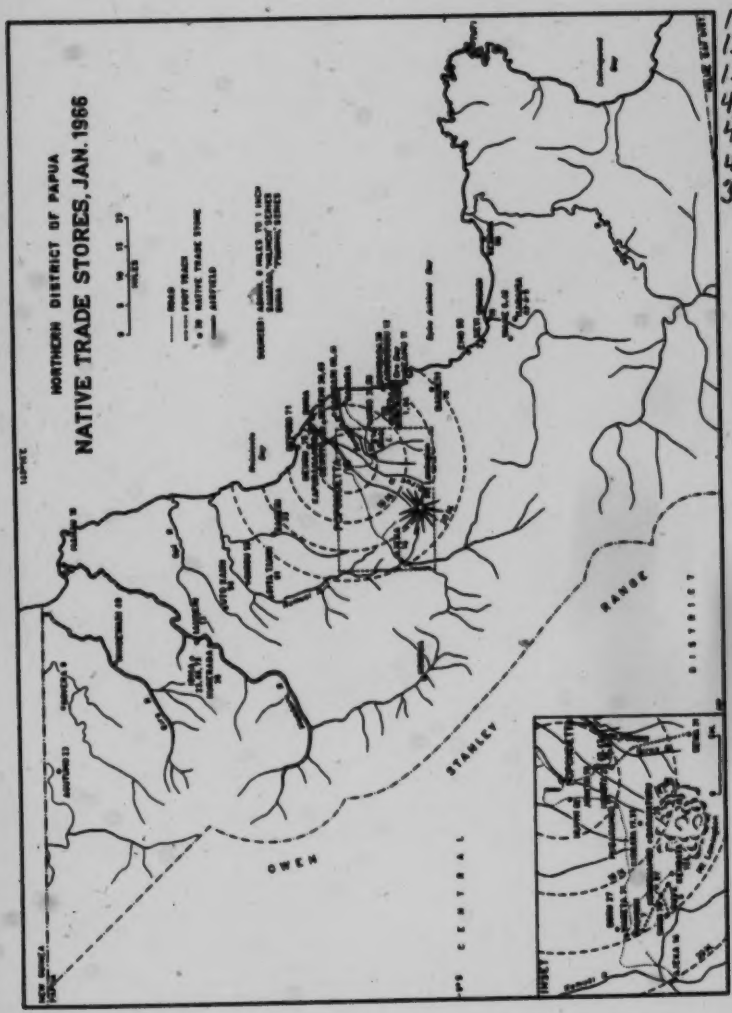

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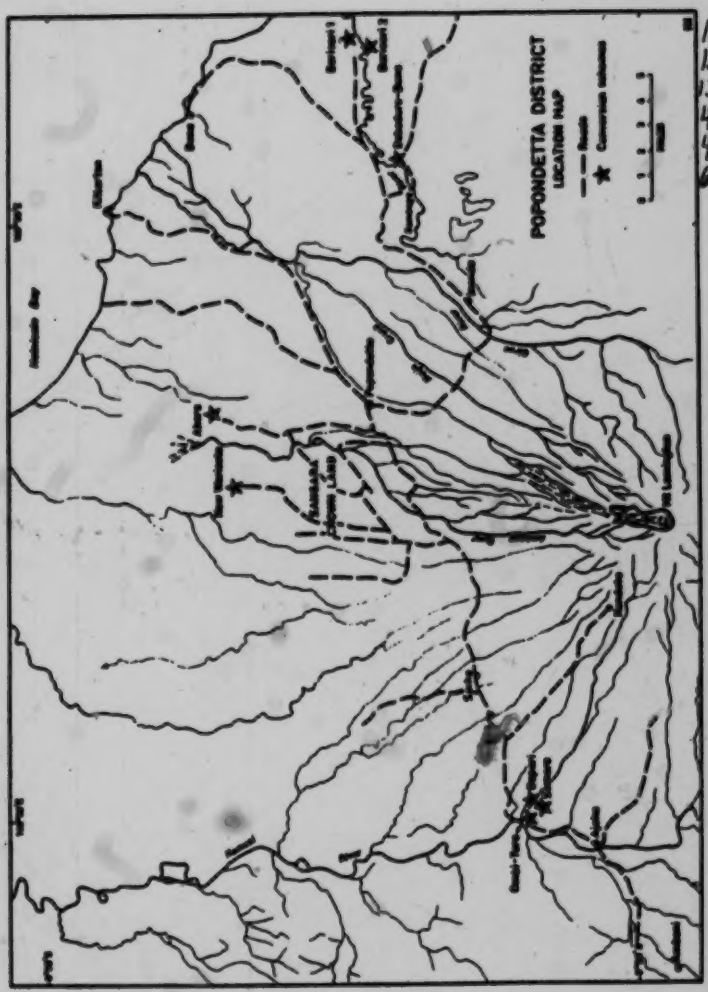
17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara



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Appendix B

The Ombi-Tara environment and population

131 Ombi village is in the Kokoda sub-district about twenty-seven
[133] miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 The Kumusi River flows close to the Popondetta-Kokoda road,
[361] about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 The nearest school is conducted by the Administration at Ajeka,
872 about two miles away. Most children of the appropriate age attend
[369] school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 The nearest trade store is at Ajeka but this is seldom open,
438 and most purchases are made from the store operated by a European
439 planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 The most important features of the climate are the generally
137 heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

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Fig. 4. Yega territory, Bepare Village and school in foreground. Light gray patches are grassland; patches of mature rain forest can be easily distinguished from the lower secondary growth

[P.8-A]

439 buy cheap cloth and durable iron or
178 aluminium pots at the trade stores. Although
every housewife now has two or three large
415 manufactured pots, she keeps them for cook-
252 ing the food for feasts. Most of the daily meals
[429] are still prepared in clay pots but few of these
[431] pots were obtained by the old barter methods;
most were obtained as gifts from friends or
relatives. At one wedding, for example, the
585 bride received fourteen clay cooking pots, in
431 addition to a large supply of mats, string bags,
enamel plates, and dishes: enough to last for
years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

178 A very close relationship exists between
361 economic change, particularly the planting of
cash crops, and changes in the pattern of
settlement. Although most development has
[173] occurred in the last twenty years, there is evi-
dence, supported by the oral traditions of Yega
elders, to show that some evolution of settle-
ment had occurred even before the first con-
173 tact with white men. By tradition the Yega
361 were sea people. This probably means that
they arrived as migrants and originally spent
most of their time aboard their canoes and
lived mainly upon seafood. They settled first on
three small islands, Baroda Deuga, about half
a mile north-east of Waususu Point (Fig. 9).
[133] These islands are today only a few feet above
high tide and are composed entirely of coarse

[P·12-A]

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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific [614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

361 By about 1910 when the first school was
[871] begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male
361 members of a clan lived together with their
614 wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement west-
361 ward along the beach continued until about 1930. People were encouraged to move by the increasing effectiveness of Government control
[659] and by the establishment at Gona Mission of
[991] a school and hospital staffed by Europeans.

[P.12-B]

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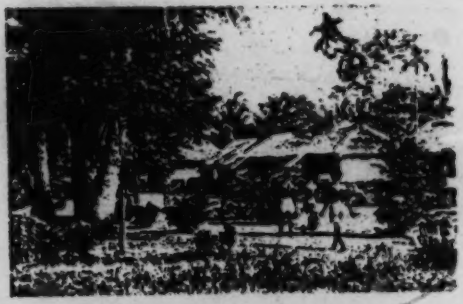

Fig. 10. *Scene in Sapora village. In left foreground are coconut palms. The tall slender palms behind the houses produce areca nuts, one of the ingredients of betelnut*

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Fig. 11. *The new village of Oreeda under construction near the cocoa blocks five miles from the coast. (Picture taken in January 1962.)*

[P. 13-B]

PREFACE

121 The following report presents data designed to be used in "A Comparative Study of Cultural Change and Stability in Displaced Communities," a project directed by H. G. Barnett. The report follows closely a list of topics specified as variables in the study. In a preliminary statement on the project, Professor Barnett (n.d.) states the reasons why the Orokaiva, living on the [731] slopes of Mount Lamington, were included in the project. In 1951, Mount Lamington erupted, some 4,000 people were killed, and the survivors were resettled under close governmental supervision. This resettlement, as a consequence of a natural disaster, makes the Orokaiva case comparable to the other 11 cases included in Professor Barnett's study. The focus of our attention must therefore be the social and other cultural consequences of this government-sponsored resettlement.

731 I should at once note certain differences between this 101 Orokaiva case and most of the others included in the study. Mount Lamington forms the centre of a rather populous district which is [133] segmented into very small units socially and politically, but which forms a definite unity in cultural respects. (See Map I.) [361] Differences in language, social structure, political and economic organization and material culture, in a wide area North of Mount Lamington, and included in the Popondetta, Sohe Popondetta and Saiho divisions of the Northern District, are so small as to be almost insignificant. Only one of the refugee camps established immediately after the eruption was outside this culture area, and its occupants were shifted back to the Orokaiva district within a few weeks. From that point onwards, people were no longer separated from their culture but only from their land. As resettlement proceeded, even separation from traditional land holdings was soon terminated, so that the typical "resettled" village, though in a different spot from the pre-eruption village, still had access to the same land holdings.

121 In these circumstances, many of the traumatic experiences 731 which are the subject of the other case studies in this project are not replicated in the Orokaiva case. There is no question, however, about the serious social consequences both of the eruption and of the large-scale government intervention that followed. To trace these consequences at the present time is no easy task. As all the Orokaiva returned to their own land a number of years ago, a great part of this report is an historical reconstruction and the Orokaiva are neither devoted nor accurate historians. Most happenings are covered over in their memory just as the jungle rapidly covers over past cultivations and past settlements. Some songs, some myths, and the harrowing personal experiences remain.

823 collection of vernacular texts written by a young man from Kiorota
773 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Hohorita and belonging to the Sangara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kanekari, "The Separation of Sumbiripa." This Sangara version is notably the richest in mythological content.

[174] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepa version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

133 Just when these preliminaries started is not clear; it may have been one week before the disaster or several weeks. The rumbling and tremors in the mountain, which were usual enough, became more severe; smoke was beginning to come out of the crater in thick puffs high into the sky; the number of craters rose from one to four or five. Ash covered the peaks, areas along the slopes became burnt; sometimes there were flashes of fire; several landslides appeared as brown streaks in the forest. Swarm-pattern earthquakes became widely felt throughout the area. On Thursday, 18 January 1951, the more active phase of the eruption began (Taylor, 1958). The emission rate increased throughout the day; the smoke gushing forth "at a great rate" varied from black to grey and spasms were noted in the crater activity. The emission was described by more distant observers as a slow-moving continuous dark-grey column ascending to many thousands of feet. A survivor who looked at the mountain through a telescope on that day noticed that a large hill had built itself up between the hills at the foot of Lamington and the mountain at the rear. That night, the mountain was shooting fire like an immense fire works. In the Sivepe area, at this time, and on Friday, stones were falling on the gardens, earthquakes were very severe and some houses had collapsed.

731 The Orokaiva interpretation of these events will be clear from what I have already written. It is explicitly supplied by Benson (1955) who reported that the fearsome happenings in the mountain were ascribed to the anger of Sumbiripa. I shall show later that the same view was taken in Sivepe. The clearest description [114] of the state of mind of the people close to the mountain (those who were mostly to become the victims of the blast a few days later) was given in a letter by Margaret de Bibra, head teacher at Martyr's School in the Sangara Anglican Mission. Miss de Bibra died during the eruption but her letter was found after her death (White, n.d.).

> The Papuans--well, most are calm, many are apprehensive and some really frightened, especially those whose villages are near the mount. It is all understandable, in fact it is to their credit that there is no panic. Lamington has not been a volcano within the memory of living man, nor in the legend of the [813] people. (But see above, E. S.) True, Lamington is feared as the home of spirits and no local man--even Christian--will venture to the top. As one of our Church Councillors said: 'The mountain people do not understand. They are afraid. We understand a little and we are afraid too. Our fathers did not know of it. The trembling of the earth--yes, but not

731 the fire. At night it is like a torch,
and we do not understand the sign.'

We cannot be entirely sure what the mountain people would have done had they not been under European influence. Informants at Hohorita told me that the people wished to run away, but that the Europeans persuaded them to stay. It is likely that people seriously considered leaving the mountain during the few days before the eruption, but it is also likely that they feared the dangers and troubles that would have followed their departure. Where could they have gone? How could they have found food? Most important of all: would other clans occupy their land during their absence? The evidence shows that, in the circumstances, the mountain people contented themselves with statements of their apprehensions to European authorities and placed upon them the responsibility of deciding what should be done in this unusual and frightening predicament.

731 The two main power centres of the Orokaiva district at that
657 time were both very close to the mountain (see Map II).[A] The headquarters of the Northern District government administration was at Higaturu; Martyr's School and the main mission centre was at Sangara; both these places were subsequently destroyed by the blast and their residents killed. These were the foci of decision. Two of my informants were able to tell me something of what happened there: Fa. Albert McLaren, who was at Sangara until the day before the eruption and Mr. C. Searle who visited Higaturu on Friday, 19 January. Both told me of apprehensive Orokaiva asking European authorities what they should do.

The District Commissioner decided to discourage the people from leaving their home villages. He maintained throughout that there was no need to worry about the mountain. The circumstances that led him to this decision were described to me by Mr. Searle, by Mr. Paul Sebire, Assistant District Commissioner, Popondetta, in
● [133] 1966 and by other informants. There had been several earlier eruptions in the district, one at Tufi in 1943 and another at Rabaul in 1937. The District Commissioner at Higaturu, Mr. Cowley, was well informed about the former while the latter had been witnessed by the Chief Justice of the Territory, Mr. M. Philips. The District Commissioner asked the Chief Justice for an opinion and the latter overflew the mountain on Friday, 19 January, to assess the situation. The Chief Justice advised that evacuation of the station was unnecessary. On the assumption that Mount Lamington was like the other volcano which he had seen in eruption, The Chief Justice believed that Mount Lamington could not be very dangerous, seeing that emissions on such a large scale had already occurred. On that premise the pressure built up inside the mountain had already been reduced, and only relatively harmless cold ejecta could now be expected.

A [See Cat. 118, pp. End Map 2(A)-End Map 2(B)--Analyst]

Section 3: The Day of the Eruption

121 As the eruption itself is the central event of this entire
128 report, I shall dwell upon it in some detail. I shall discuss it from five vantage points: the vulcanologist's, the experience of the Sangara people, the Sivepe and the Inonda people, and finally
133 the action of the administration. The vulcanological aspects have been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption
731 of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours on Sunday, 21 January, 1951, a paroxysmal explosion burst from the crater and produced a nuée ardente which completely devastated a surrounding area of 68 square miles." This explosion had a marked resemblance to that of Mount Pelée at St. Pierre on Martinique in 1902, when 29,000 people perished in a few minutes. The effect of the Pelean type of explosion is very different from the more usual one which is called "Vulcanian," and which occurred, for instance, at the famous eruption of Vesuvius described by Pliny. One may compare it, rather, with the effect of an atomic bomb; the lethal effect of the nuée ardente seemed to be due mainly to sudden damage to the respiratory system caused by inhaling hot dust. Almost 4,000 people were killed. Destruction in the inner zone of devastation was almost complete: the rain forest on the slopes was flattened and in some places the earth was swept bare, not even stumps remaining as evidence of the previous forest cover. At Higaturu, six miles from the crater, only one house remained reasonably intact; most of the buildings on the government station were carried away. Of the people who lived in this inner zone of devastation scarcely a single one remained alive.

Taylor classified a further 2? square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Hohorita came from villages such as Tunana, Sesuu, Sehundeturu, all of which lie in the area of partial devastation. From the village of Sombo, on the boundary of the area of complete devastation, one man escaped (Table 1).

731 I interviewed members of 15 Hohorita households about their
[124] experiences during the day of the eruption. Some of them escaped because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Asbogo immediately
A [See Cat. 116, p. 205--Analyst]

133 Sivepe lies on an altitude of 1,300 feet, seven miles from
[361] Mount Lamington. Although the mountain rises to a height of 5,634
[241] feet, most present settlements are on the lower slopes, rarely very
[731] much higher than Sivepe. A wide range of annual and perennial
[361] crops, including taro, on which the Orokaiva depend, do not grow well at altitudes much above 1,500 feet. Thus, the eruption has had no appreciable permanent influence on the location of village sites. The restricted area is at present a circle of two miles' radius from the crater of Mount Lamington; there are not now, nor were there before the eruption, permanent settlements closer than four miles from the crater.

The Sivepe terrain (if I may borrow the terminology of the CSIRO report) is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepe (see Map III)[A] is on a soil association of the Awala land system which has an 8 to 12 inch very dark brown topsoil. Chemical tests suggest that these loams are fertile, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil type, which the Orokaiva call mune (a word whose principal meaning is night, darkness), is only one of five found in the district and distinguished by Orokaiva by colour, texture and moisture. The others are hohori (red), which is popular for cultivation if it is not sandy; gindiri (stony, with high sand fraction); pusu (clay) and pesara (swamp). Mune is the most widely used soil for gardens.

133 In contrast, Inonda (see Map IV)[B] is no more than 200 to 300 feet above sea level. It lies partly (to draw on the CSIRO report again) on the flood plains of the Girua and Sambogo rivers and partly in the moderately sloping foothills of the northern side of the extinct strato-volcanic Hydrographers Range. The Sambogo and Girua Rivers flow in a northerly direction draining from the Hydrographers Range and Mount Lamington respectively. They are swiftly flowing, rocky-bedded rivers which, together with their numerous tributaries, give the area a moderate to good drainage system. To the east the drainage system in the vicinity of the Embi Lakes has been blocked by recent volcanic activity and drainage is much poorer. A vast coastal plain between 20 and 30 miles wide stretches north-westwards from the Hydrographers for over 60 miles. Inonda lies at the southern end of this plain, about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of five soil associations listed in the CSIRO survey: (i) the Popondetta Association, with black to very dark topsoil underlain by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double
132 Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepe, but further down it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepe. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
161 350 live in Hohorita and the rest in the three other villages. The total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepe, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[A] developed in several
361 stages. First the Horsopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horsopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission

A [See Cat. 116, p. End Map 13--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

[End Map 1]

Boundaries of Northern District

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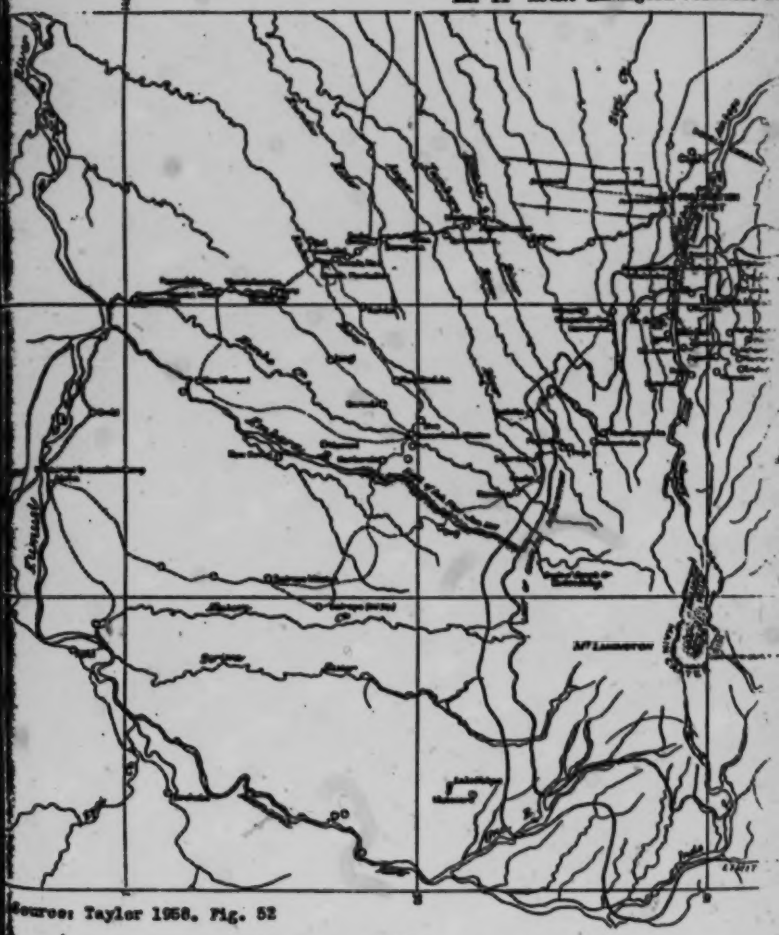
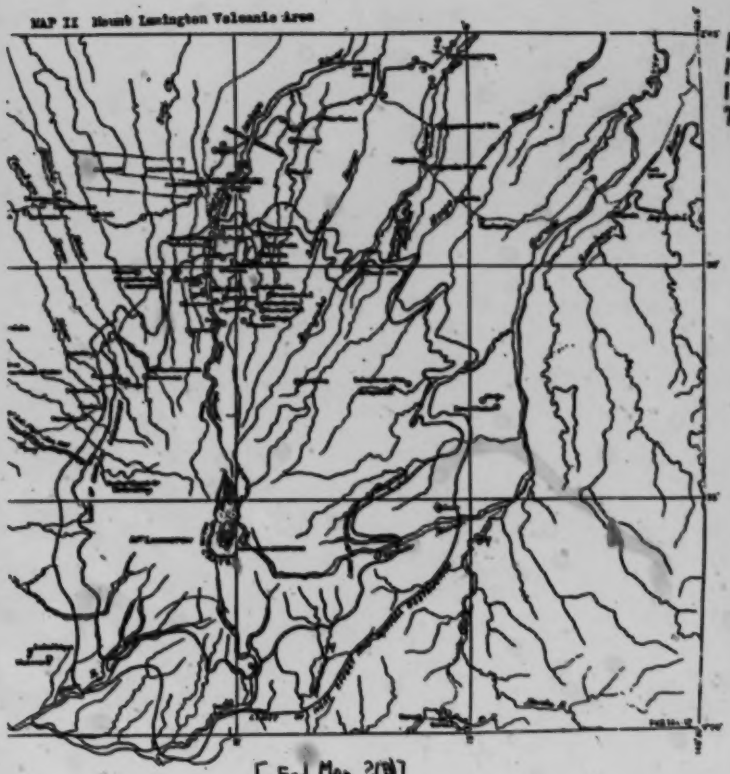
MAP II Mount Lamington Volcanic



Source: Taylor 1958. Fig. 52

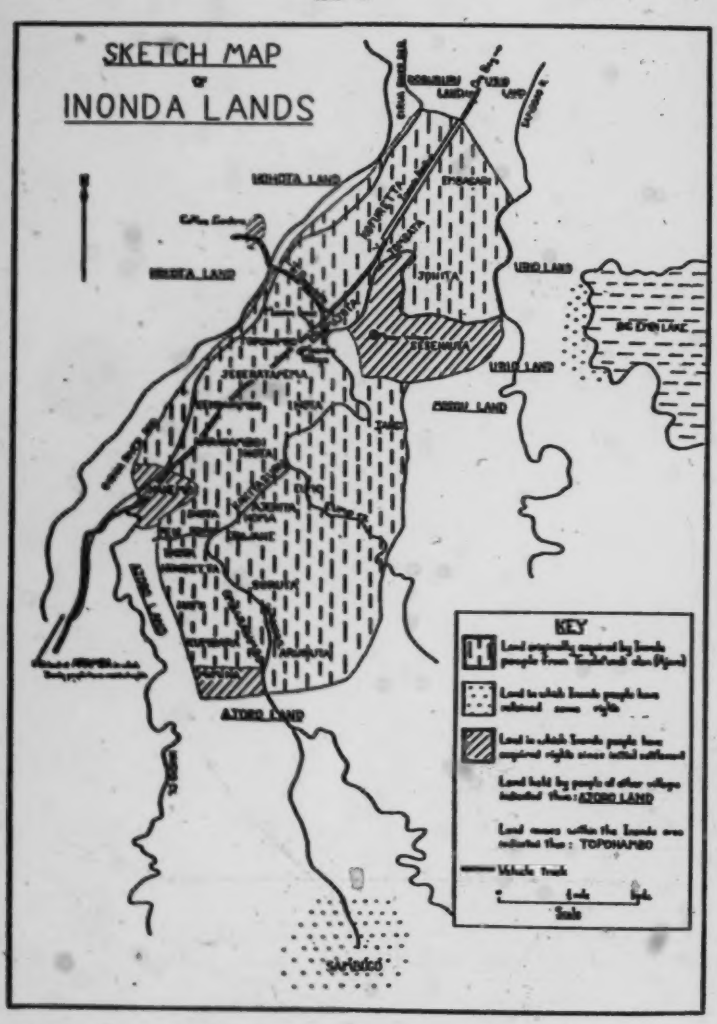
[End Map 2(A)]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington



[End Map 2(B)]

MAP IV



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423
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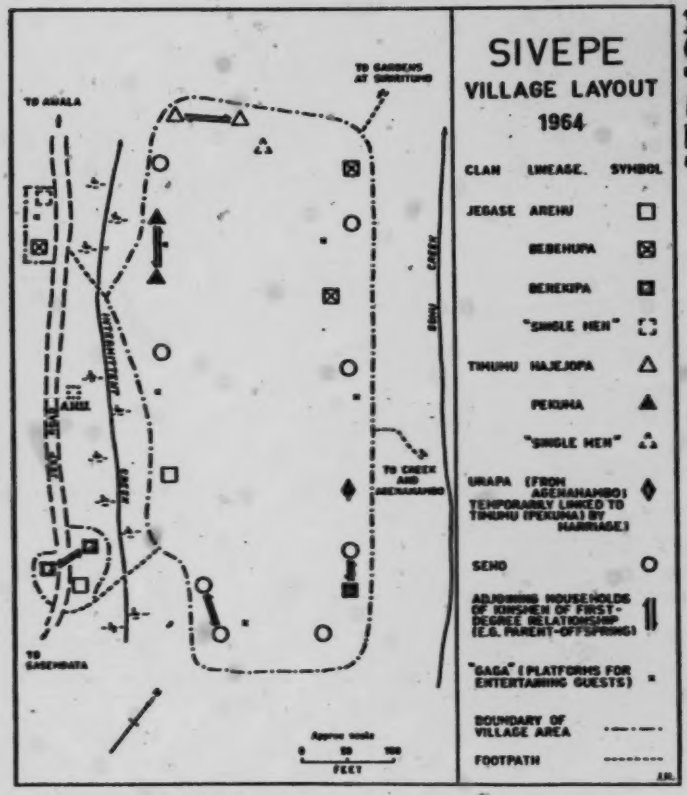
Source: Crocombe & Hogbin 1963 : 106.

[End Map 4]

Map V



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Source: Waddell & Krinks 1968: 38

[End Map 5]

Map VI
Plan of New Sivepo

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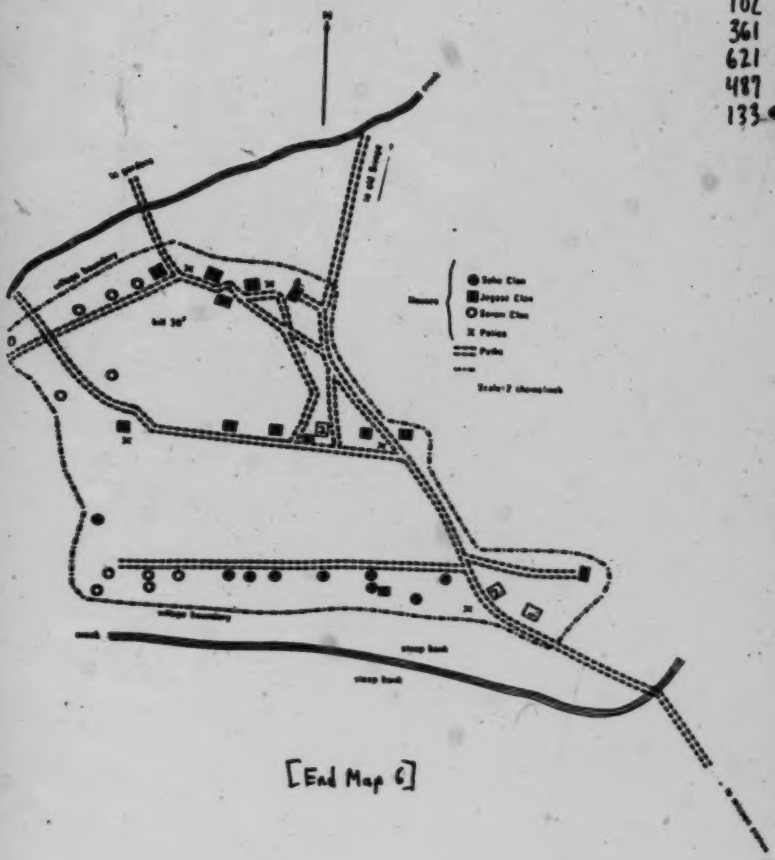

[End Map 6]

Map IX

Source: Waddell & Krinks 1968: 34

[End Map 8]

22: Schrimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map X

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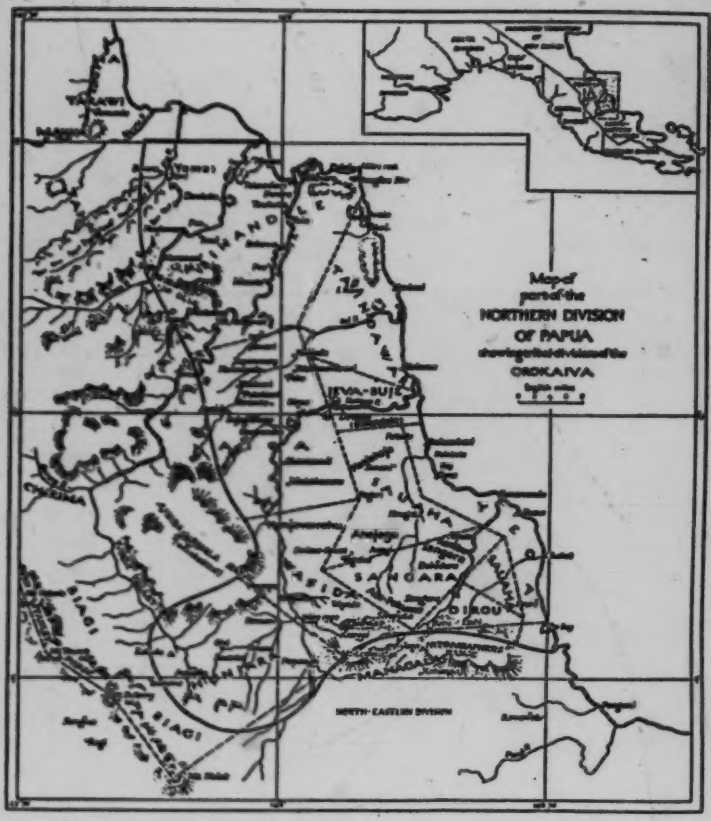
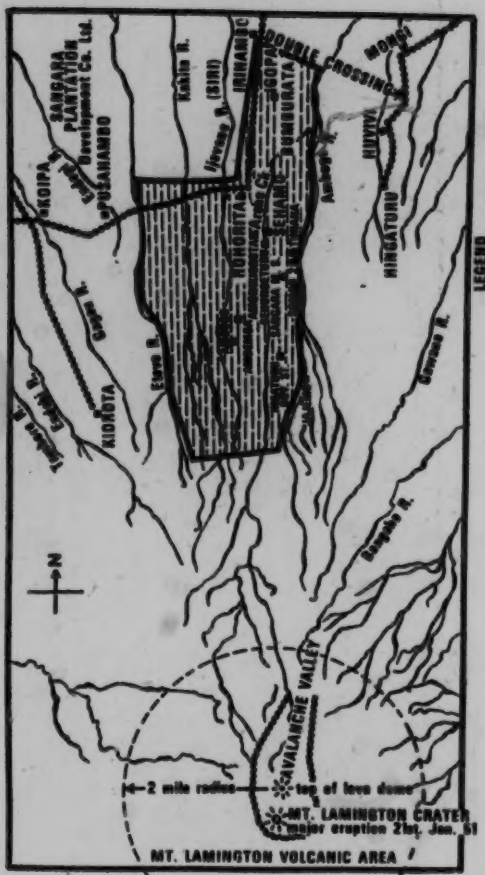


Source: Williams 1930

[End Map 9]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington



Map XIII

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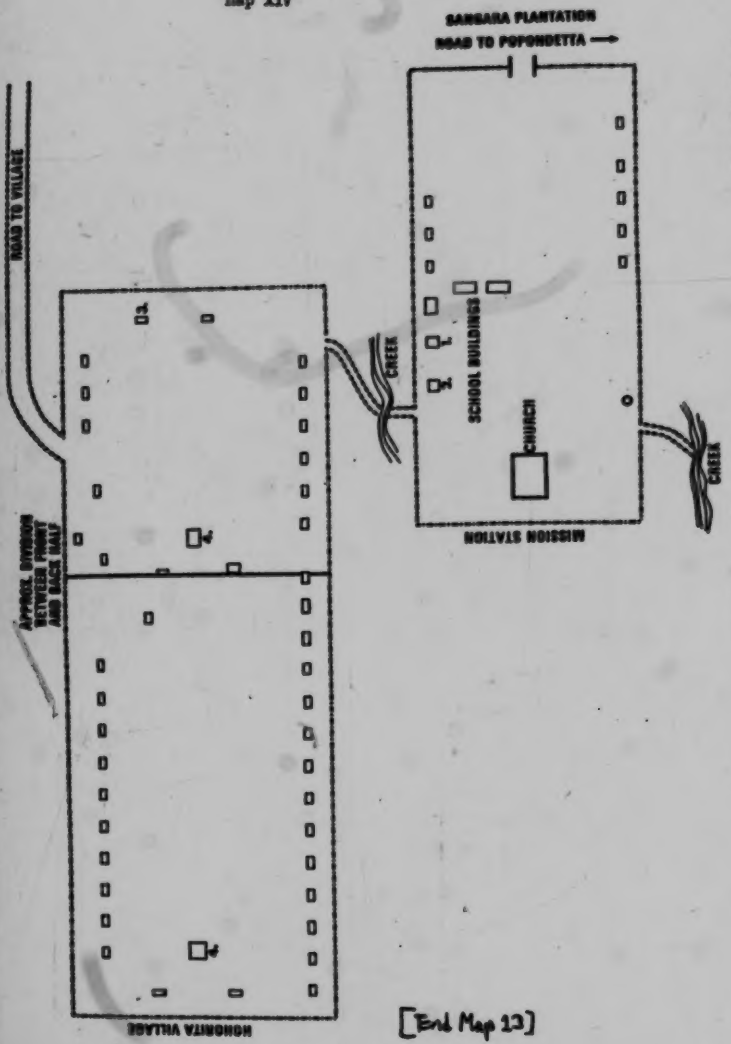
[End Map 12]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

Map XIV



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[End Map 13]

23: Keesing E-5 (1951) 1952
OJ23 Orokaiva OJ23

These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Orokaiva worked their hamlets and gardens high up on the rich soil of its sprawling flanks, achieving perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higatura.

The first eruption came on a Sunday morning after three anxious days of earth tremors during which official and Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good

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2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

139 condition, it was assumed that death occurred by either
731 the outward blast or the inward backwash. The medical authorities made no post-mortems, however, being fully occupied with the problems of the survivors who poured out from their living sites further down the slopes, shocked, in a few cases very badly burned, and without immediate means of support.

731 A main government trail from Kokoda to the coast, which
[491] was widened into a military road during the war, winds over the shoulder of Lamington on its northwest side. Almost all of the evacuees headed for this road, some going west to the Wairopi crossing of the Kumusi river, others going north toward the coast. Within two days Government relief teams were flown to the area and were operating emergency camps in these two zones. Food, medicines and other supplies were sent in by way of adjacent airfields. The seriously injured were flown out to hospital centers. The first temporary encampments were condemned by the health authorities as they were in swampy or otherwise unsuitable settings; also the fear remained that they were too close to the source of possible further eruptions. Refugees on the west side were therefore moved back to a major camp at Ilimo. Those on the north (coastal) side were taken to two camps: the "Sangara" region people to Eroro, and the "Isivita" region people to Oro Bay. Emergency district headquarters were set up near the Popendetta airstrip on the north side, with an adjacent camp to stage the people back to resettlement areas. A government vulcanologist established a crude seismological station in a somewhat protected spot within the "closed" blast zone to bring the volcano under scientific surveillance.

In the areas that were most damaged and considered to be dangerous for an indefinite period because of their proximity to the active summit, practically all the occupants were killed. Government rolls of the survivors showed only some 400 as being from these settlements. Some were chance survivors in the more marginal zones, others were laborers, police, school children, or people who were visiting at the time. In the settlements lower down the mountainside and in the adjacent foothill and valley areas, casualties were sporadic and whole groups escaped unscathed. After the first panic of scattering, therefore, local groupings were able in the main to reassemble in the regional camps with such official aid as was necessary. Stray child survivors, including some infants, were readily taken under the care of other families, some of whom had lost children. In general, each group could be dealt with through its delegated leaders. Each was given its rations in bulk to use on its own responsibility and, where possible, accommodated as a unit even under crowded emergency conditions.

133 A second major eruption came on March 5. New ash
731 cone accumulated and blanketed the area, but there were no further casualties. Later that month, at the time of the writer's visit, the smoking peak had another great ash cone building up. There were minor ash eruptions in and around the crater and massive ash flows were occurring down the river courses; vegetation was burnt and water rendered unfit for use many miles into the zone of the surviving green forest and savanna. Uncertainty as to further possible

133 731 eruptions has subsequently continued, and reports as of December, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

731 241 An observer passing through or flying over destroyed areas was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organised to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

731 Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. Those groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

731 657 177 [361] By that time, too, a whole series of policy problems had arisen which both the field staffs and the Australian authorities at Canberra and Port Moresby were trying to resolve. Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

[P.17-B]

why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

THE EVENT AND ITS SETTING

On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor 1958:7).[a] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1).[b] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homogenous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Map 14. Mount Lamington, Papua.

survivors, established camps to house them, and set up a volcanological observation post. Acting on technical advice that further explosions were to be expected, the administration at once restricted access to a fairly wide area surrounding the crater, thus forbidding most of the fugitives to return to their homes. It was at this stage also that the administration called in two anthropologists, Felix Keesing and Cyril Belshaw, for advice on what should be done with the now homeless population.' Shortly after the two anthropologists left the scene in May 1951, volcanological studies indicated that the active, paroxysmal stage of activity of Mount Lamington had ceased and hence that a large part of the restricted area could be resettled. In March 1953, it was possible to reduce the restricted area still further, to a circle of 2 miles surrounding the crater. As a result of these events, virtually all arable land in the district was in use when I visited in 1966–1967. There were no displaced communities in the proper sense of the word. There had been movements of villages from the crater area to consolidated settlements in the vicinity of paved roads, but here convenience

24: Schwimmer E-5 (1966-1973) 1977
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1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a carefree life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthrolopologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use[1], Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 16]

5: Schwimmer E-4,5 (1966-1967) 1973
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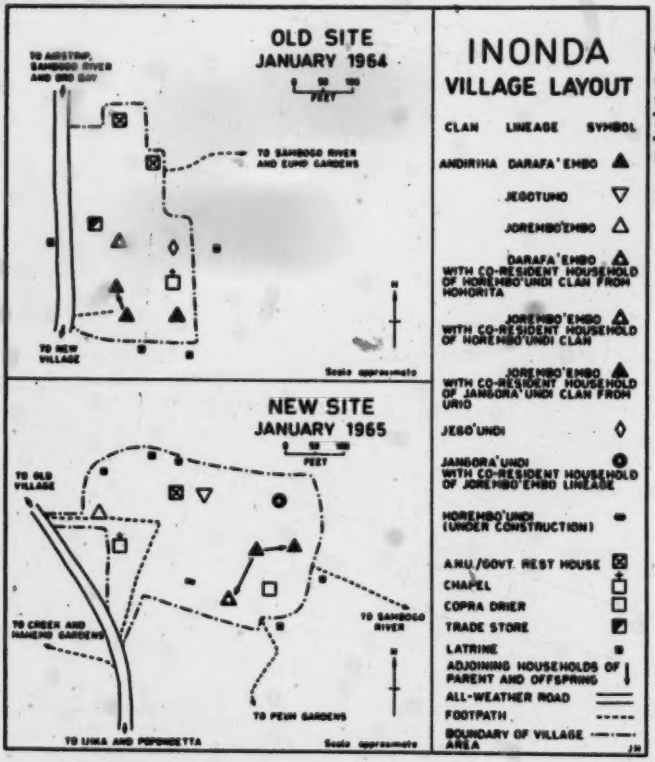

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them. 101 105

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed. 133 311 34 132 161

Sivepe. I stayed in Sivepe for about nine months, from September 1966 101

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *saccharum edule*. 262

Chapter 2

The subsistence economy

a. Climate and soils

134 The neighbourhood has a warm, moist climate with an average annual rainfall of 160 inches (see Appendix C). Sivopa is between 139 1,250 and 1,300 ft above sea level and nights are often cool. 132 According to the C.S.I.R.O. soils survey (1954:11), the village is on a soil association of the Awala land system which has an 8-12 inch very dark brown top soil. Chemical tests suggest that these loams are fertile, rich in nitrogen and phosphorus. The fine-
133 textured subsoils range from 10 to 22 inches in depth. The terrain is characterised by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mt Lamington (5,634 ft) into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system.

823 The local people recognise 5 types of soil based on differences
134 of colour, texture and moisture.[1]

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[1]
(a) Hohori - any red soil; 2 subtypes are distinguished: i. without sand. This is popular for cultivation; ii. sandy. Avoided if possible as taro does not grow well in it.
(b) Gindiri - any soil which is stony or has a high sand fraction. It may be used for cultivation but in the dry season taro grown in it becomes stunted and the corms are small.
(c) Mumu - this soil is the predominant type in the area. It is the dark brown loam described in the C.S.I.R.O. report as covering almost the whole of the soil association. It is certainly the most widely used and together with Hohori, type i., it gives the best yields.
(d) Pusu - any clay. Taro growth is stunted.
(e) Penare - swampy or waterlogged soils. These are sometimes used during a dry season.

A, [See Category 132, p. 109--Analysis]

245 [654] At the time of our survey no one who had a coffee garden had taken any steps to grow cocoa although one man claimed that as a result of a recent visit by an agricultural extension patrol he now proposes to interplant cocoa[1] with the rubber which he had planted, and another who already has coffee claims that he will plant cocoa in one of his subsistence gardens when it is finished. One man was given cocoa seedlings by some kinsmen but he has made no preparations for transplanting them from the nursery.

Only 2 men have made even minor extensions to their original small coffee gardens. In 1961 one of them added about another 70 Leucaena shade trees. The other has extended his coffee plot with 60 young shade trees.

[134] [654] Lowlands coffee (Robusta coffee) is grown and is well suited by the soils and climate. All planters have access to the dark friable loams (eume) of the area (but 1 plot planted on an abandoned subsistence garden became waterlogged). Crotalaria is used as a shade tree but Leucaena glauca is now established in mature gardens. The shade is planted in lines and the sites for the coffee trees are staked out. Some planters, with assistance from agricultural fieldworkers, arranged these on about a 10 foot triangle but the density of trees varies considerably from one plot to another.

Coffee seeds are bought from the agricultural station or are sometimes given by a neighbouring planter. When the shade is established, they are planted in a nursery sheltered with bush materials. The ground is turned with a bush knife and the seeds covered with a layer of soil. Until transplanting an occasional weeding is all the further attention they receive. Seedlings which have grown to a height of about 2 feet are taken to the shaded lines of stakes and transplanted. No root pruning or preparatory holing of tree sites is carried out. The growers claim a high percentage of strikes from the seedings but since few of the recommended transplanting procedures are followed the vigor and yields of the trees are probably reduced.[2]

For the first few months the ground near the seedlings is weeded and later weeds are cut when growth becomes rank. In theory the owners prune the plots about once a year wherever shoots are too long but the incidence of tall trees and suckering shows that more care could be taken in this aspect of husbandry. [654] Arch-pruning (agobiada) has not been tried on any of the sample

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[1] Extension officers usually do not encourage the planting of cocoa instead of coffee in this area.

[2] See Cole 1960.

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO
137 survey (1964:32) as belonging to the Awala Land System and is characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest
311 and various stages of regrowth, with little grassland. The land-use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

361 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $1 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

133 moderately sloping foothills of the northern side of the extinct strato-volcanic Hydrographers Range. The Sambogo and Girua rivers flow in a northerly direction draining from the Hydrographers Range and Mt. Lamington respectively. They are swiftly flowing, rocky-bedded rivers which, together with their numerous tributaries, give the area a moderate to good drainage system. To the east the drainage system in the vicinity of the Embi lakes has been blocked by recent volcanic activity and drainage is much poorer. A vast coastal plain between twenty and thirty miles wide stretches north-westwards from the Hydrographers for over sixty miles. Inonda lies at the southern end of this plain, about fifteen miles inland from the coast.

134 Soils and vegetation: The Inonda lands are classified below on the basis of the soil associations set out in the Interim Report of the C.S.I.R.O. survey of the Kumusi River-Oro Bay area.(1)

[135] (i) The Popondetta Association covers approximately one third of the Inonda lands. Its soils characteristically have a black to very dark brown topsoil underlain by a yellowish grey volcanic sand subsoil and are usually moderately well drained. They are covered with kunai grass (predominantly Imperata sp.) or savannah and are not used by the people for food gardens because of the difficulty of freeing the ground from grass roots. Because the land is flat there may be some potential for mechanized farming on soils of the Popondetta Association, provided that their natural moderate fertility can be improved or at least maintained under cultivation.(2)

Associated with these soils are small areas of fine textured, recent, alluvial soils, usually covered with forest or

(1) C.S.I.R.O. (Land Research and Regional Survey Section) Interim Report on the Description and Assessment of the Land Systems and Soil Associations in the Kumusi River-Oro Bay Area. Northern Division. Papua. (Unpublished Record) 54/2. June, 1954.

(2) There is still some doubt as to the suitability of this soil for mechanized agriculture as there is a tendency for the soil structure to disintegrate under intensive cultivation.

regrowth. They are lower lying than the surrounding savannah and are poorly drained.

(ii) The Girua Association consists of coarse textured, recent riverine deposits covered with forest or regrowth. It lies beside the Sambogo and Girua rivers. The association covers about one fifth of the Inonda lands and, being permanently moist and apparently fertile, these soils are extensively used for food gardening. The local people have given this soil type the name tumene.

(iii) The Warisota Association occurs on the lower slopes of the valleys of the Hydrographers Range, where the Sambogo river and its tributaries emerge from the foothills. The soils are recent, well drained, medium textured clay loams, becoming fine textured with depth, and being grey to grey-brown in colour. They are covered with a heavy forest or secondary growth vegetation, but there is little accumulation of organic matter in the topsoil.

These soils, which cover approximately one fifth of the Inonda lands, are used for food gardens, although they are not favoured because of their tendency to dry out during the dry season. On the higher ground they are known to the Orokaiva as hora while on the lower ground they are known as hohori. The hohori runs into the still lower lying tumene of the Girua Association.

(iv) The Hydrographer Association lies in the deeply dissected foothills of the Hydrographers Range. The soils of this association are shallow, stony and poorly differentiated, carrying a hill-type rain forest. They are not favoured for gardening and the people use this land only for foraging and hunting. Its agricultural potential has been assessed as "negligible"(1), as both topography and soils are unfavourable for the growth of crops. It occupies approximately one fifth of the total area of the Inonda land.

(1) Ibid, page 36.

134 [197] (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

132 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C[A](1)

805 824 The Inonda people refer to the dry season as huvira because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [574] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 241 The warm moist climate is generally favourable for plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [368] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 439 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

● 134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

133 Sivepo lies on an altitude of 1,300 feet, seven miles from
[361] Mount Lamington. Although the mountain rises to a height of 5,634
[241] feet, most present settlements are on the lower slopes, rarely very
[931] much higher than Sivepo. A wide range of annual and perennial
[361] crops, including taro, on which the Orokaiva depend, do not grow
well at altitudes much above 1,500 feet. Thus, the eruption has
had no appreciable permanent influence on the location of village
sites. The restricted area is at present a circle of two miles'
radius from the crater of Mount Lamington; there are not now, nor
were there before the eruption, permanent settlements closer than
four miles from the crater.

The Sivepo terrain (if I may borrow the terminology of the CSIRO report) is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepo (see Map III)[A] is on a soil association of the Awala
land system which has an 8 to 12 inch very dark brown topsoil.
Chemical tests suggest that these loams are fertile, rich in
nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil
type, which the Orokaiva call mumu (a word whose principal meaning
is night, darkness), is only one of five found in the district and
distinguished by Orokaiva by colour, texture and moisture. The
others are hobori (red), which is popular for cultivation if it is
not sandy; gindiri (stony, with high sand fraction); pusu (clay)
and pegara (swamp). Mumu is the most widely used soil for gardens.

133 In contrast, Inonda (see Map IV)[B] is no more than 200 to
300 feet above sea level. It lies partly (to draw on the CSIRO
report again) on the flood plains of the Girua and Sambogo rivers
and partly in the moderately sloping foothills of the northern
side of the extinct strato-volcanic Hydrographers Range. The
Sambogo and Girua Rivers flow in a northerly direction draining
from the Hydrographers Range and Mount Lamington respectively.
They are swiftly flowing, rocky-bedded rivers which, together with
their numerous tributaries, give the area a moderate to good
drainage system. To the east the drainage system in the vicinity
of the Embi Lakes has been blocked by recent volcanic activity and
drainage is much poorer. A vast coastal plain between 20 and 30
miles wide stretches north-westwards from the Hydrographers for
over 60 miles. Inonda lies at the southern end of this plain,
about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of
five soil associations listed in the CSIRO survey: (i) the
Popondetta Association, with black to very dark topsoil underlain
by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

/134 the *muna* of Sivepa, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called *tumona* is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the hydrographers foothills. They are grey to grey brown, and are called hora or *hohori*. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepa. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepa, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepa is not at all untypical for the Saiho Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepa population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jegase and Timusu clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepa clan (Seho) has greater land resources, and that the Saho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Seva Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 580 acres may be classed as good garden land, whereas the present level of subsistence gardening can be maintained with 127 acres (1963: 10).

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken 731 to introduce a few innovations which, it was thought, would improve 242 subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepa or Inonda. I myself had brought a spade for the garden I established in Sivepa, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption 731 would have destroyed taro seed stock, but this fear proved unfounded. 134 The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed 731 according to a ration scheme based on the census figures. Each village 657 constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

241 rodent attack. A hardwood planting stick (ti) is used to loosen the soil, though occasionally shovels are used to make mounds for sweet potato runners and tubers, or for yams. Sugar cane and pitpit are planted either in clumps of suckers or in lengths or 3 nodes but bananas are propagated only from suckers.

Maize, cucurbits and tobacco are planted before or with the main crop of taro. They usually grow best near stumps or logs, perhaps because they benefit from extra potash and humus.[1] Tobacco seeds are thrown near stumps and when seedlings are about 6 inches high they are transplanted throughout the garden. Numerous varieties of taro (Colocasia spp.), distinguished by their colour and stem and leaf shape, are propagated by suckers. The suckers are placed in holes 6-8 inches deep and spaced about 2 feet apart. A small amount of Xanthosoma taro is planted, usually on sloping ground, and not necessarily in the main gardens. Yams are planted in separate areas if planting material is plentiful. Otherwise they are planted at random through the garden. Two common varieties are recognized.

Sweet potato is grown only in small quantities as a supplementary diet to the taro. If it is planted among the taro, the planting is delayed until the taro is suckering. Small plots are often made in a taro garden after most of the taro has been extracted. Minor crops found in the gardens are cabbage, manioc, beans, tomatoes, ginger, shallots, pineapple and pawpaws. (Table 1.)

Gardens are usually weeded 3 times. Weed infestation becomes too heavy to handle at this stage, but crops are mature enough to compete successfully and shade from the weeds is claimed to benefit the taro.

417 Fencing is not as extensive or elaborate as in many Orokaiva areas, due to a scarcity of wild pigs. Gardens are usually made on sites at a distance from the village which is considered too [136] far for domestic pigs to wander. Despite this precaution, 2 men had their gardens spoiled by village pigs just before our visit.

Fences are raised to a height of about 4 feet by piling logs horizontally on a broad base and securing them with perpendicular stakes. In most cases the fence is erected only on the garden border which is considered most accessible to pigs. This is often done after the area has been planted. The barrier may be extended later if another side is found to need protection.

[241] [476] A virtual absence of wild pigs is partly responsible for the tendency for the gardens to be scattered. In other parts of

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[1] Cf. Vicary 1960:188.

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311 standards of subsistence agriculture.[1] Their own property totals 138 acres.

c. Hunting and fishing

224 These pursuits add variety ot the diet but provide comparatively
[136] little food. Most of the game surviving in the area is small and there are no large fish to be found in the mountain streams. Small marsupials such as the cuscus, bandicoot and, more rarely, the land wallaby, together with flying foxes and birds are the main sources of animal protein. Nets and hunting spears are generally used to catch these animals after they have been flushed out by the hunter's dog. Traps are seldom set for game but we were told this formerly was a more common technique. Snares for the smaller types of animal are often made by boys and one or two of the men. Two members of the sample owned licensed shotguns and these were very effectively and economically used. One of these men would place his services at the disposal of anyone who supplied cartridges for the gun; the other allowed a limited circle of people to use his gun. The guns were frequently used for hunting at night in the dry weather during our survey.

226 Neither of the two forms of concerted hunting common among other Orokaiva (the drive towards a pig net and grassburning, Williams 1930:45) is practised to any extent as there are few wild pigs and little grassland in the area.

Spears and fine-mesh nets are used in local streams to catch eels and the 7 types of small fish found. This task is shared by men and women usually when the water is low during a period of dry weather. They may search for fish with a net along the Sohu River wherever it passes through land held by a member of the village, but the small rock dams built by a man to form pools suitable for the use of the spear are made only where the river passes through his own land.

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[1] This requirement is 2.2 acres per capita. Barrau (1958:75) says that 2.5 to 5 acres per capita are sufficient for this type of agriculture in Melanesia, assuming the average area of garden is 0.25 acres and that the duration of bush fallow ranges from 10 to 20 years. In March 1951, 40 square miles of unrestricted land were considered suitable for resettling 4,500 of the survivors of the recent eruption (Plant 1951:4; Belshaw 1951:9). It was felt that these 5 acres per capita were enough only to meet the immediate requirements of traditional subsistence gardening for the next few years. (It was well-wooded and appeared 'most productive' and easily accessible by road.) Considerable population increases were anticipated.

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:35).

[2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

[311] [136] [417]

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building [476] materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach [417] maturity. In the less densely settled areas where wild pigs are [136] common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A,[See Category 102, p.38--Analyst]

241 cultivators in New Guinea.[1] This was due partly to changing emphases in the pattern of work between the two surveys, particularly the greater amount of time used for external agencies and in the inception of two communal enterprises (the establishment of a cash crop garden and preparations for the transfer of the village to a new site). Three other factors must be taken into account. [125] Firstly, a slightly different survey technique was employed by Rimoldi. The 1964 measurements were confined to a single point in time, whereas Rimoldi measured all the gardens and then added any extensions which occurred during the survey period (about six weeks) without deducting any areas which might have gone out of [132] production. Secondly, 1964 proved to be a highly unseasonal year at Sivepa in that recorded rainfall in August exceeded that in December (1,542 and 1,416 points respectively) and the number of rain days was the same in each month (24). This disrupted the cycle of agricultural activities and prevented the customary clearing of forest for new gardens during dry weather. For this reason, figures for areas planted but not producing (see Table 4:1) approximate closely to Rimoldi's, whereas cleared and producing areas fall far short.[2] Thirdly, two household heads within the group surveyed in 1964 had been absent from the village for two to three months before the data were collected, and third's activities were partially diverted by his involvement in a contract to build a house at Saiho hospital, and most of the community were involved for several weeks in building the new road to Sasembata and in erecting classrooms on the mission station.

245 (b) Economic trees and livestock

The holdings of economic trees (Table 4:3) indicate their importance for subsistence. Breadfruit comprises a very large proportion of the intake of starches at the onset of the dry season and only when most of it has been harvested do the people resort to sago-making. Areca is chewed by almost all adults, while the milk of the green coconut is drunk as refreshment and the meat grated to use in preparing staple foods. Hauga (Canarium sp.) nuts, when in season, are gathered and consumed largely by children.

[136] All economic trees, except for the recently introduced orange, grow wild in the bush but are claimed as individual property. Several, particularly coconut, areca palms and hingi trees, are also planted in gardens and on the periphery of the village.

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[1] See Barrau 1958:32; Brookfield 1962:245, 251; Bureau of Statistics 1963:14.

[132] [2] Similarly, a long unseasonal dry spell occurred during the last few weeks of Rimoldi's survey with the consequent extensive clearing of land for new gardens.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a fact dictated largely by the density of occupation where intensive [224] utilisation of the forest has greatly reduced its plant and animal [512] resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig high on the slopes of Mt Lamington but this has ceased now they [136] 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 223 dry weather.
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Sago-making is a highly seasonal activity. In Sivepe, production [221] is confined primarily to the dry season when 1.3 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro [461] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[273] duction of guns and snorkels which greatly increased yields for
[199] some years, but then led to a greater scarcity than had ever been known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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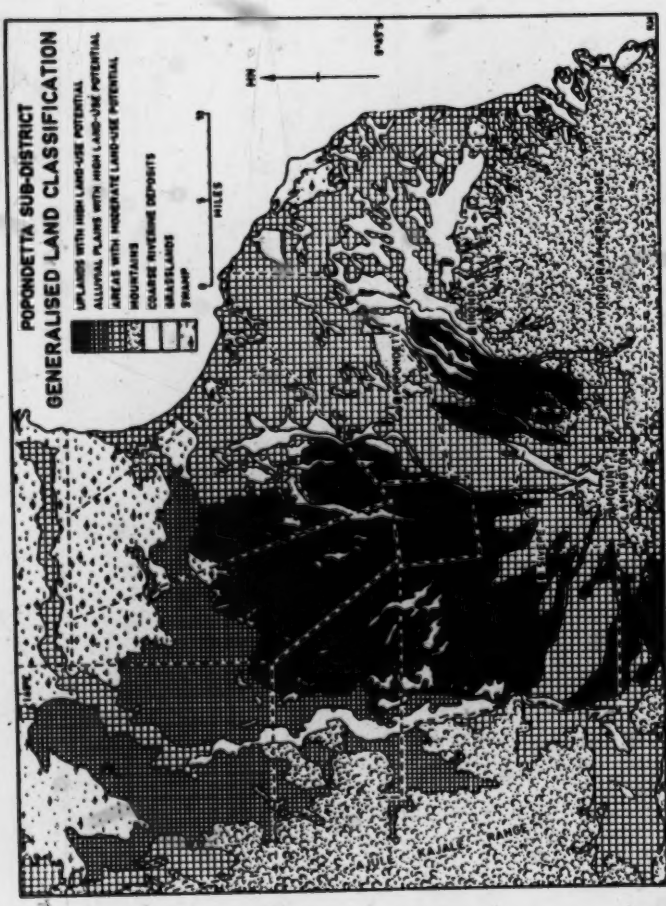

Fig. 1. Popondetta Sub-District: generalised land classification

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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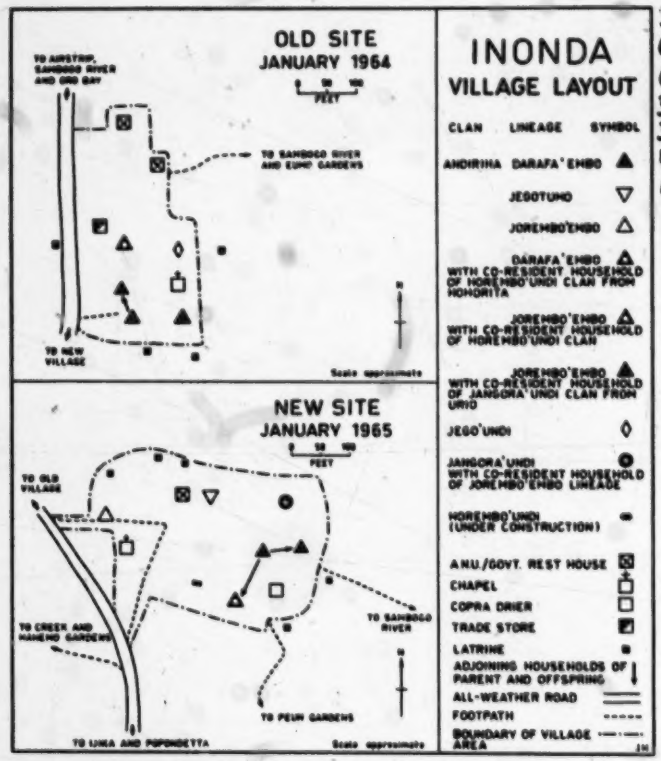

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

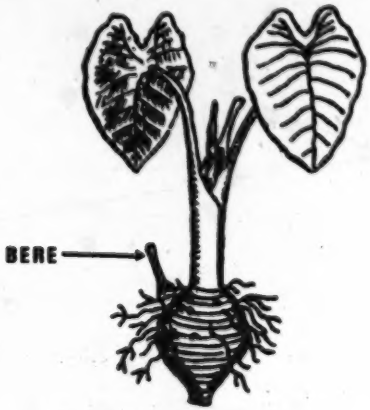

Fig. 7. *Colocasia esculenta* (taro).

7: Rimoldi et al. E,I-5 (1962-1963) 1966 OJ23 Orokaiva OJ23
Mountain Orokaiva
Sivepe

433 The C.S.I.R.O. (1954:12) reported that a wide range of annual and perennial crops which will grow at altitudes up to approximately 1,500 ft and do not require a marked dry season could be grown successfully. The report commented that the whole land system is a very good agricultural area and that this is reflected in the relatively dense population,

> a factor which under the present system of native agriculture will influence the extension of European agriculture. The potentialities of the area, however, far exceed the present land use, which means there is scope in this area for the successful application of extension work directed to the improvement of native agriculture and horticulture.

137 The natural vegetation of the area is a rainforest climax (Pometia pinnata-chisocheton sp. Alliance), of which very little remains. A belt of primary and secondary rainforest separates the settlements on the mountain slopes from their northern neighbours but the area south of this belt is mostly covered with more recent secondary growth in various stages of regeneration after cultivation. Isolated patches of 'kunai' grass occur (mainly Saccharum spontaneium, with some Ropbelia, Imperata spp.)[1] but their area is insignificant by comparison with the grasslands found on the Orokaiva plains.

b. The cultivation cycle

132 Over a period of 8 years the average monthly rainfall has ranged from 9.6, 7.9 and 8.2 inches in June, July and August (when rain falls about 15 days per month) to 20.9, 16.8 and 17 inches in December, January and February (with 22 wet days per month). The coefficient of seasonal variation used by Brookfield and Brown (1963:20) indicates only slight seasonal variability in the area.[2] [241] An occasional brief drought is possible at any time, but with good soil, and no marked dry season, conditions for the growth of subsistence crops are usually favourable throughout the year and new gardens can be made as needed.[3]

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[1] District Agricultural Officer: personal communication.

[2] The coefficient of seasonal variation was 0.30. This measure is obtained by calculating from rainfall figures the standard deviation of monthly means from the mean of the monthly means and then dividing the standard deviation by the mean of the monthly means.

[3] We found no effects in this area of the rainshadow zone referred to by Keesing, 1951 :6.

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could [431] in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for [435] distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

e. Economic trees

245 Although the village is 23 miles from Gona on the coast and [131] over 1,000 ft above sea level, most economic trees are abundant. [133] The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. [137] Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

Chapter 1

The physical and social setting

This chapter summarises the physical and social background to current attitudes to cash cropping among the Orokaiva. 128

The physical environment

(a) Landforms (see Map 1)

Lying between the main New Guinea cordillera and the Pacific Ocean, the Popondetta sub-district[1] has a great variety of landforms and soils and, to a lesser extent, of vegetation.[2] Bounded on the south-west by the foothills of the Owen Stanley Range (4,000 ft) and on the south by Mt Lamington[3] and the Hydrographers Range (4,000 to 5,000 ft), the area comprises a broad plain sloping gently north-eastwards to the Pacific Ocean. Three elements may be distinguished within it: strongly dissected piedmont terraces, alluvial plains of volcanic materials (to the north-east of Mt Lamington) and flood plains from 10 to 25 miles wide extending from the terraces to the coast. All characteristically support primary or regrowth lowland forest except in the relatively drier and sandy areas, particularly on the plains north-east of Mt Lamington, where there are extensive stretches of grassland. 131 133 133 [137]

The CSIRO (Division of Land Research) considers (1964:17) that although there is more poor than good land in this area, 'some of the best land in the Territory' occurs on the gentle northern foot slopes of Mt Lamington and in parts of the flood plains where fertile volcanic soils and stratified sediments with a high organic content have developed. The major factors limiting land use are steepness of slopes in the mountain zone, and poor drainage and flooding in the lowlands. Soil deficiencies do not appear to be a serious limiting factor. 311 133

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[1] An area of 3,712 square miles.

[2] The following description is derived from CSIRO 1964:10-15.

[3] A volcano which last erupted in 1951, resulting in extensive destruction and loss of life.

Chapter 4

The two communities: Sivepe and Inonda

The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

Sivepe is situated 1,300 feet above sea level on the lower north-western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

Also in mid-1964, several villages voluntarily commenced the construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

133 moderately sloping foothills of the northern side of the extinct strato-volcanic Hydrographers Range. The Sambogo and Girua rivers flow in a northerly direction draining from the Hydrographers Range and Mt. Lamington respectively. They are swiftly flowing, rocky-bedded rivers which, together with their numerous tributaries, give the area a moderate to good drainage system. To the east the drainage system in the vicinity of the Embi lakes has been blocked by recent volcanic activity and drainage is much poorer. A vast coastal plain between twenty and thirty miles wide stretches north-westwards from the Hydrographers for over sixty miles. Inonda lies at the southern end of this plain, about fifteen miles inland from the coast.

134 Soils and vegetation: The Inonda lands are classified below on the basis of the soil associations set out in the Interim Report of the C.S.I.R.O. survey of the Kumusi River-Oro Bay area.(1)

[135] (i) The Popondetta Association covers approximately one third of the Inonda lands. Its soils characteristically have a black to very dark brown topsoil underlain by a yellowish grey volcanic sand subsoil and are usually moderately well drained. They are covered with kunai grass (predominantly Imperata sp.) or savannah and are not used by the people for food gardens because of the difficulty of freeing the ground from grass roots. Because the land is flat there may be some potential for mechanized farming on soils of the Popondetta Association, provided that their natural moderate fertility can be improved or at least maintained under cultivation.(2)

Associated with these soils are small areas of fine textured, recent, alluvial soils, usually covered with forest or

(1) C.S.I.R.O. (Land Research and Regional Survey Section) Interim Report on the Description and Assessment of the Land Systems and Soil Associations in the Kumusi River-Oro Bay Area, Northern Division, Papua, (Unpublished Record) 54/2. June, 1954.

(2) There is still some doubt as to the suitability of this soil for mechanized agriculture as there is a tendency for the soil structure to disintegrate under intensive cultivation.

194 regrowth. They are lower lying than the surrounding savannah and are poorly drained.

(ii) The Girua Association consists of coarse textured, recent riverine deposits covered with forest or regrowth. It lies beside the Sambogo and Girua rivers. The association covers about one fifth of the Inonda lands and, being permanently moist and apparently fertile, these soils are extensively used for food [829] gardening. The local people have given this soil type the name tumene.

(iii) The Warisota Association occurs on the lower slopes of the valleys of the Hydrographers Range, where the Sambogo river and its tributaries emerge from the foothills. The soils are recent, well drained, medium textured clay loams, becoming fine textured with depth, and being grey to grey-brown in [193] colour. They are covered with a heavy forest or secondary growth vegetation, but there is little accumulation of organic matter in the topsoil.

[241] These soils, which cover approximately one fifth of the Inonda lands, are used for food gardens, although they are not favoured because of their tendency to dry out during the dry [829] season. On the higher ground they are known to the Orokaiva as hora while on the lower ground they are known as hohori. The hohori runs into the still lower lying tumene of the Girua Association.

(iv) The Hydrographer Association lies in the deeply dis- [193] sected foothills of the Hydrographers Range. The soils of this association are shallow, stony and poorly differentiated, carrying a hill-type rain forest. They are not favoured for gardening and the people use this land only for foraging and hunting. Its agricultural potential has been assessed as "negligible"(1), as both topography and soils are unfavourable for the growth of crops. It occupies approximately one fifth of the total area of the Inonda land.

(1) Ibid, page 26.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

192 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C*(1)

805 824 The Inonda people refer to the dry season as huvira because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognised by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

192 241 The warm moist climate is generally favourable for plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

Appendix B

The Ombi-Tara environment and population

131 Ombi village is in the Kokoda sub-district about twenty-seven
[133] miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 The Kumusi River flows close to the Popondetta-Kokoda road,
[361] about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 The nearest school is conducted by the Administration at Ajeka,
872 about two miles away. Most children of the appropriate age attend
[368] school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 The nearest trade store is at Ajeka but this is seldom open,
438 and most purchases are made from the store operated by a European
439 planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 The most important features of the climate are the generally
● 137 heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

137 The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

132 replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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799 The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this

177
464 time until the outbreak of World War II, Yega men began leaving their villages to work

466 [P.5-A]

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Fig. 4. Yega territory. Sopora Village and school in foreground. Light grey patches are grassland; patches of mature rain forest can be easily distinguished from the lower secondary growth

[P.8-A]

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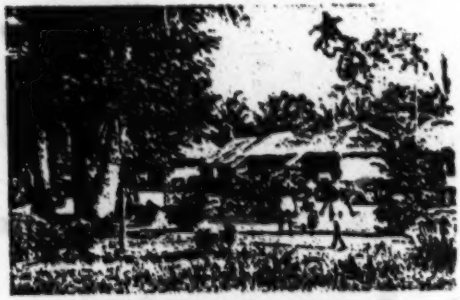

Fig. 10. *Scene in Bepora village. In left foreground are coconut palms. The tall slender palms behind the houses produce areca nuts, one of the ingredients of betelnut*

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Fig. 11. *The new village of Onanda under construction near the cocoa blocks five miles from the coast. (Picture taken in January 1962.)*

[P-13-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

BOTANICAL NAMES OF COMMON FOOD PLANTS

137
262

Banana	— *musa* (spp.)
Cassava	— *manihot* (spp.)
Coconut	— *cocos nucifera*
Sago	— *metroxylon sagu*
Sweet Potato	— *ipomoea batatas*
Taro	— *colocasia esculenta*
Taro Kong Kong	— *xanthosoma* (spp.)
Yam	— *dioscorea* (spp.)

[P.40-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

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799 The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this time until the outbreak of World War II,

177
464 Yega men began leaving their villages to work

466 [P.5-A)

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. [461]

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e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly

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[P.10-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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531

Fig. 8. *Bark-cloth (tapa). Each manufacturer has her own special designs traced in red and black dyes on the white material*

[P.11-B]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VII

PIGS

1. *Introduction*

262 574 431 While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially [146] suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves [773] a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

431 But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more [773] than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

431 825 In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

[571] [789] The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 partners, while objects of mediation are not imaginary and magical, but have a real 772 existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the [252] squeezed flesh produces coconut cream in which taro and delicacies such as river [262] crabs may be cooked. Young coconuts are cut open at the top and used for a [272] refreshing drink. Coconut is reserved for two kinds of everyday food gift: [431] cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it [146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed [231] regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance 778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of [881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

423 [224] [226] The only local hunting land held by Sivepa people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[657] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

454 worthwhile way in which they can invest their money or, three, a general inability of the people to handle their money effectively. An analysis of the pattern of expenditure on commodities (which account for 55 per cent of total expenditure) throws some light on the problem since, in this area, the people themselves initiate the act rather than any other institution.

511 Food and stimulants account for 62 per cent of the expenditure on commodities (see Table 10:12). In a predominately subsistence economy such purchases are generally considered to be of a luxury nature and superfluous to basic requirements. This view cannot be substantiated on the basis of the Sivepa evidence. Sixty-three per cent of rice purchases, the single most important item, are made during July, August and September - the latter part of the dry season - when there is a serious shortage of cultivated foods. The consumption of tinned meat and fish compensate, to some extent, for the inadequate protein content in the subsistence diet. Similarly, purchases of subsistence produce are restricted to the locally scarce resources of fish and meat, together with lime which is eaten with areca. Other foodstuffs include biscuits, bread, sugar and salt and only certain of these can be treated as purely luxury purchases. The other important commodities purchased are clothing and household goods (principally cooking utensils). Both are now essential elements in the material culture, having displaced their traditional counterparts.

438 In comparing the purchasing patterns of cash and non-cash croppers
431 (and therefore of high and low income households) a clearer pattern
511 of priorities emerges. Among the latter clothing is the most important commodity purchased, followed by rice, meat and fish, and household goods. Together these account for 72 per cent of all purchases. The range of purchases of cash croppers is more widely distributed, the above commodities accounting for only 50 per cent of the total. Thirteen per cent of their expenditure is on goods used in hunting - cartridges, torches, batteries and bulbs - and it is in this activity particularly that their larger incomes are of direct significance in effecting a technological advance and increasing productivity. Their more substantial purchases of rice can be viewed in a similar light - reducing their need to make sago, so enabling them to continue their cash cropping activities through the dry season.

In general purchasing patterns can be readily understood in terms of the requirements of the village economy. Expenditure is largely restricted to goods which have displaced their traditional counterparts or which compensate for seasonal food shortages and there is little evidence of extravagance.

Chapter 13

Rural productivity and capital formation

It has been demonstrated that, among the men at least, there is a significant amount of untilised labour time available and that, although the Orokaiva are evidently committed to the cash economy, individual involvement is marginal. In particular, the commercial production of agricultural crops is poorly developed. Since this is the one form of enterprise which would appear the least disruptive of the subsistence routine and which exploits the available resources of land, labour and customary skills some explanation is required.

Although no direct evidence is available, Orokaiva diet, like that of many New Guinea societies, is probably adequate in calories but deficient in protein content. The ability of adults to undergo sustained periods of hard work, either in employment or in such subsistence tasks as sago-making, suggests that diet does not impose serious limitations on their productive capacity. It is worth noting, however, that there is a marked falling off in the level of activity in Sivepe during the dry season at a time when the diet, heavily reliant on sago, is least satisfactory. Moreover, this coincides with the coffee flush.

Both villages have access to more agricultural land than is required for subsistence. Crocombe and Hogbin (1963:10) estimate that, at Inonda, there are 580 acres of 'good gardening land available', of which only 127 acres are presently required. Rimoldi (1966:20-1) estimates the Sivepe sample's requirements to be 110 acres out of an available area of 138 acres, all of which is considered suitable for cultivation. In the former village only about 5 acres are under commercial crops (coffee, coconuts and cocos) and 4.6 acres in the latter (coffee and rubber). Accessibility may be important in the failure to plant additional areas under cash crops. The preference for establishing such plantings close to the village at Sivepe, where the initial processing is carried out, has already been noted.[1] In the case of Inonda the degree of commercialisation is influenced

[1] See pp.110-11. A
A,[See Category 361, pp. 110-111--Analyst]

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Margaret's Hospital, Eroro (Table 11).[A] The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, gastro-enteritis, influenza, scabies and other skin diseases are also [146] extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including [753] one in Sivepe during the time of my stay. People are extremely anxious about disease, even mild attacks of influenza or of malarial fever. [754] The cause was always thought to be sorcery.

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation
731 camps, except for infections due to bad water supply at Cape Killerton camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned
731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

A [See Cat. 116, p. 216--Analyst]

755 medicine, though by no means always. Bandages were especially popular;
they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants
to be helpful would be treated thus, and it has of course been noticed
554 that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

The evacuation camps provided a good opportunity to put a
744 public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepa, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepa was the health
inspector employed by the Higaturu Council. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Garombi and he had many relatives
in Sivepa, he made frequent visits. Sivepa caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a levatory and the place was kept clean in the prescribed way. On

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

as a first step in their wider rehabilitation. Lectures were given by Europeans, adult illiterates were taught the three " r's," sports were organised, and as a welfare measure the old people were given prepared meals in a " soup kitchen." Once again the response was enthusiastic, indicating a real demand. As refugees moved out of the camp back to villages, it was common for young men who had missed their Mission schooling, or who considered that schooling to be insufficient, to return to Ilimo for the sole purpose of continuing their instruction. Unfortunately, under the unsettled conditions they had to be sent home again.

As soon as the danger area had been determined villages outside it were re-started, leaving only 1,500 people at Ilimo by April. These 1,500 people were not permitted to return to their village sites except under special passes to obtain garden produce. An administrative officer was detailed to undertake research into native land tenure and social groupings in the area with a view to determining sites for re-settlement.[1] As a result of his recommendations these refugees were returned to certain areas of land which they were said to own, or which had been granted to them by neighbouring villages. Women remained at Ilimo until shelters had been erected for them, but by June they had rejoined their husbands and the camps were evacuated. A Government patrol post was set up at Saiho in the centre of the evacuation area, and medical facilities were transferred to Saiho from Ilimo.

The policy behind these moves was aimed at re-establishing gardens in the shortest possible time, and the building of an improved style village-system. In addition consideration was given to the possibility of large-scale community development. But there were many difficulties in the way, and the method of carrying out the policy often created further difficulties.

In *Orokaiva Society* Williams characterises the people as being fierce fighters but gentle and harmonious in their domestic and intra-group relations. Whether or not that was true twenty years ago, Europeans with recent experience of them say that they are now highly excitable, with rapidly inflamed tempers which, however, quickly subside. When under the influence of temper they are said to be violent, and to vent their violence on people near at hand, particularly wives. There is a tendency towards suicide in the case of disappointed love or the loss of children, and they will throw hysterical fits. In view of these conflicting accounts it is impossible for me to judge whether the emotional activity I observed after the volcano was a mere passing phase or represented deeper emotional states. At the same time there were a number of influences present which certainly did nothing to reduce nervous tensions.

It is not difficult to describe these. The people were in refugee camps, and the atmosphere of refugee camps is almost always one of strict control, in contrast to the freedom of village life. Work had to be found to keep people occupied, and much of it was camp erection work that had no clear or immediate relevance to the desire

[1] See memorandum by H. T. Plant, " Re-Establishment of Isivita Villages," March 24, 1951, with Map and Appendices on Land Ownership, Class and Tribal Groupings.

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
especially when they wish to give the impression of being modern and
[777] educated. Papuans close to the Mission invariably speak of it as a
natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hoborita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added
[719] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisiire.
[762] A person who is sisiire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisiire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisiire.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
777 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Honckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarised in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lahiagusa slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualized bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallized opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organized Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

Preface

125 [101] In this study, carried out between February and April 1963, seven groups of adult male Orokaiva were tested using a culture-fair test of cognitive ability. There were 20 men in each group, making a total sample of 140.

153 Differences were found between some of the groups; one village obtained significantly higher test results than the other groups and another significantly lower test scores than all others except one.

Some of the total samples were divided into three groups according to productivity or ownership of cash crop trees. There was found to be a significant difference between groups. Those who were most productive tended to have the higher test scores.

128 A principal components factor analysis revealed three factors. Tentative identification suggests a memory factor, a gestalt factor and a less certain third factor.

122 Gratitude is expressed to the New Guinea Research Unit of the School of Pacific Studies, Australian National University, for the financial support which covered field expenses and the cost of travel to Papua.

114 Special thanks are due to Mr Cromwell Burau of the staff of the Unit whose company, assistance and help matched with his special skills made the field work so profitable and enjoyable.

Gratitude is also expressed to Mr I.G. Ord, Chief Psychologist of the Public Service Commission in Port Moresby, for his interest and encouragement in this project. It was his initial research that developed the test and made this project possible.

[p.4 is blank]

125 (iii) Test administration

Testing was done individually during daylight hours at the testees' home villages. The time spent in testing varied considerably depending upon the quality of the response.

123 Establishment of adequate rapport is important in all psychological testing. A number of factors contributed to its establishment in the present case. The field staff and the New Guinea Research Unit were well known to the testees, personally in the majority of cases, and at least by reputation in the remainder. This led to a readiness to co-operate in the research programme. The physical material of the test is itself attractive and appealing. Testees do not become bored or stressed during testing as the item type changes fairly rapidly.

125 A card table approximately 3 feet square was used to provide a flat surface on which testing took place.

(iv) Scoring systems

There are currently a number of scoring systems available for use with this battery. The first of these was devised by Ord (1959). This utilized time bonuses and credit for partially correct responses. Other systems were developed by Kearney (1962). Test scores derived from the different scoring systems were correlated by the product-moment method in a 27 x 27 matrix. When one marking system is correlated with any other marking system for the same test, the correlation did not fall below $r = 0.9$ except in one case where $r = 0.85$.

One system of analysis used simple binaries (i.e., 1 mark if totally correct, 0 marks if incorrect) to avoid any contamination of the results by a marking effect. It might have been thought that delection of time bonuses and part marks would render results less sensitive to small changes in performance, but the above results have not borne this out. There were time limits but these did not make the task rely on speed but were imposed so as to have a standard discontinuation time when the testee was unable to complete the item.

The simple binary system makes no assumption about the relative weightings of various items or ideal time bonuses. In this analysis this system has been used.

Results

153 The means and standard deviations of the test score are presented in Table 3.

Table 3

153 Means and standard deviations of the test data and rank order of mean test results

Village or sample	Mean	Standard deviation	Rank order
Beporo	33.85	8.83	1
Ex-servicemen settlers	27.40	10.13	2
Borugasusu	23.95	7.76	3
Inonda	22.55	10.23	4
Plantation labourers	21.95	9.14	5
Sivepe	20.50	10.24	6
Ongoho	16.25	7.97	7

153 The inter-correlations of all test scores, age and educational
128 background tests are presented in Table 4. The correlation statistic was Pearson's product-moment coefficient.

It must be pointed out that the supplementary data in the last three columns are very rough approximations only. Age had to be estimated, as most testees were unaware of birth dates. Often such events as the eruption of Mt Lamington or the Japanese invasion were used to estimate approximate age. In the initial analysis, age was found to correlate negatively with every other variable. The signs of correlations could be changed, and the variable called 'youth' if so desired. The standard reached at school and the number of years spent at school were also unreliable, but not to the same degree as age.

An analysis of variance was computed to find whether the difference between the groups was significant. The results in Table 5 below show that it was.

The F ratio indicated that there was a real difference between the samples $F = 6.931$ ($p<0.01$); therefore t tests were calculated to investigate which samples were contributing to this significance, i.e., which samples were really different.

The t values are included in Table 6 below.

Relationship of test score to productivity

153 128 The task of adequately assessing the productivity of each individual proved more difficult than anticipated. The field data forms did not give ready access to information which could be coded or scaled as to productivity. There were considerable differences in the manner in which the various field workers collected and recorded information. There was also a disparity between the sample of the author and that of other research workers. The New Guinea Research Unit was asked to rate the testees for whom information was available. They divided them into three categories of those having more than 500 cash crop trees, those with some cash trees but less than 500, and those without cash crop trees.

Altogether only 46 testees were able to be so categorized. Of these 5 were placed in the first category, 20 in the second category, and 20 in the third category. Another testee who had no trees but was in paid employment as a clerk was placed in the first category bringing the total to 6. The data for these categories are shown in Table 7.

Table 7

Mean test scores for the three categories

Category	500 plus trees	1-500 trees	No trees
Number of testees	6	20	20
Mean no. of trees	1035.6	134.3	0
Mean test score	36.0	24.5	18.4
Standard deviation	9.62	9.34	10.63

Three t tests were calculated to determine whether the differences between the mean scores were significant. It was predicted that there would be a positive relationship between categories and test score, therefore it was decided to use one-tail tests of significance. The t value between the first and second categories was 2.522 which is significant at $p<0.01$; between the second and third categories, a t value of 1.879 was found which is significant at $p<.05$; and between the first and third categories, a t value of 3.499 was obtained which is significant at $p<0.001$.

A principal components factor analysis was used to examine the factor content of the test. Only the test correlations (the first seven variables in Table 4) were used. Three factors were extracted. These are shown in Table 8.

Table 8

Unrotated factor loadings

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Test	Factor I	Factor II	Factor III	Communalities
Cube Imitation	80	-36	-28	85
Bead Threading	-	-22	92	90
Passalong	59	-54	-	64
Form Assembly	83	32	-	81
Pattern Matching	68	28	36	67
Kim Game	72	-37	-	66
Gestalt Continuation	69	63	-	88
Variance	44.8%	17.0%	15.4%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

These factors were rotated using the varimax unadjusted method and are shown in Table 9.

Table 9

Factor loading rotated to a varimax unadjusted solution

Tests	Factor I	Factor II	Factor III	Communalities
Cube Imitation	89	21	-	85
Bead Threading	-	-	95	90
Passalong	78	-	-	64
Form Assembly	46	77	-	81
Pattern Matching	27	69	34	67
Kim Game	78	-	-	66
Gestalt Continuation	-	92	-	86
Variance	33.0%	28.4%	15.7%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

Discussion

In this paper the term cognitive ability is used in preference to the more commonly used term intelligence. The latter term has come to have a connotation by common usage which leads to ambiguity. Cognitive ability is used to mean 'thinking' or 'reasoning' abilities in their broader sense.

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121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[747] to discuss the possibilities that cause this effect. It is interest-
[177] ing to note that the village of Beporo is situated beside the Gona
[871] Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

153 There were three categories: those who owned more than 500 cash crop trees and were regarded as being highly productive; those who owned less than 500 cash crop trees who were regarded as being in the 'low' to 'medium' productivity range, and those without any cash crop trees (zero productivity). From Table 7 it can be seen that the first category has a mean test score of 36.0; the second category has a mean test score of 24.5 and the third category has a mean test score of 18.4 These scores are sufficiently different from each other (see t tests) for them to be from statistically different groups.

The relationship is not surprising as it would be expected that persons with higher ability would tend to be more productive. The measure of cash crop tree ownership used here is not the best measure of productivity but it does reflect productivity to some degree. If a more accurate measure of productivity had been found the effect might possibly have been more pronounced.

The factor analysis was carried out to allow examination of the factors that the test was measuring. This is an examination of the test rather than of the testees. Three factors were found and those were rotated to a varimax unadjusted solution (Table 9). The interpretation of what the factors represent is not as definitive as the interpretation of other statistical techniques. Below is an attempted interpretation.

The first factor, which accounts for 33 per cent of the variance, loads on all the tests except the Bead Threading and the Gestalt Continuation. It would appear that this is a general memory type factor. This particular ability encompassed the ability to assess the task, learn the goal and then reproduce the information. The tests that gave the highest loadings on this factor were the Cube Imitation, the Passalong Test and the Kim Game. In these tests memory plays an important part, as is obvious in the Cube Imitation and the Kim Game. In the Passalong, the remembering of the correct solution to one item means that the next item is relatively not much more difficult. Each item is a progressive building upon the principles used in the preceding item.

The second factor, which accounts for 28.4 per cent of the variance, loads heavily on the Form Assembly, the Pattern Matching and the Gestalt Continuation tests. It would appear that it is a spatial-closure-Gestalt type of factor. This is the ability to form whole from parts - to synthesize from components.

The Form Assembly requires the completion of a missing area by a combination of shapes fixed to the board. The Pattern Matching requires a testee to make a complex geometric pattern from a number of 1" tiles. The Gestalt Continuation test requires a testee to complete a design by joining dots with a pencil. In all these,

153 there is the ability to visualize the 'whole' and how the parts fit together or to complete the Gestalt.

The third factor which accounts for 15.7 per cent of the variance presents a more difficult task of interpretation. Because it has a very high loading on the Bead Threading test and only a smaller loading on the Pattern Matching and an absence of any loadings on all other tests, it is indicated that the factor is almost specific to the Bead Threading test. It could perhaps be associated with some type of manipulative ability, i.e., threading the beads or manipulating the tiles. Definite conclusions cannot be drawn at this stage.

153 121 From the factor analysis, the structures of the elements of cognitive ability measured by the tests emerge more clearly. This is due to the use of more accurate statistical methods than an a priori assumption that each test measures some particular aspect of cognitive functioning. The overall ability level of the seven samples and the three categories are therefore seen in more detail.

The interlocking matrix of cognitive ability is complex but some elements of this are measurable. They do reflect the variation in ability from person to person. People also vary in other facets of behaviour and one examined here in a crude and simple form is productivity in the cash crop economy. The relationship of these abilities has been demonstrated. It would have been better if a more intricate and exacting measure of this productivity had been obtained. Even though productivity is sometimes related to specific influences such as economic, agricultural or even social fluctuations, these may be beyond the control of any particular person. There is also a level of cognitive ability specific to a person that tends to influence the outcome of his personal endeavour.

It would be foolish to assume that all high producers are of necessity of a high level of cognitive ability or that all low producers are of low cognitive ability. However, the trend is clear and significant.

It is often the case that external influences are circumscribed in their effect on agricultural outcome and that personal attributes such as individual cognitive ability are thought to be of only minor importance.

The ability to differentiate between successful and non-successful categories implies the ability to predict such categories and therefore select with higher probability than chance those who are likely to succeed in any venture.

Economic, agricultural and other external influences are important as are individual, social and internal emotional

153 121 influences. Motivation is of considerable importance but tends to be confused. It is easier for a person to say that he won't do something than to say that he can't. This is certainly the case in the European culture where being poorly motivated is more acceptable than being of poor cognitive ability. The former state can be altered from time to time but the latter state is relatively unchangeable.

It is suggested that in those cases where there is a need to choose between a number of applicants, those with the greatest probability of success should be selected. Close attention should be paid to the individual's cognitive ability and this, together with knowledge of other background and environmental influences, can increase the possibility of success in any selective procedure.

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472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had held posts involving considerable responsibility over people and property.[2]

[466] [463]

472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepe six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of [177] Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

472 554 153 marketing or the more intricate techniques of production. It does suggest, however, that they have a sufficiently clear conception of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 423 [428] [472] Most Orokaiva men established their cash crops on customary land to which they have acquired rights by inheritance from their fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 423 472 A had cleared bush land and planted coffee at Garara where his close kin had been permitted to resettle in the late 1920s. Though the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for registration of his land under the [656] Land (Tenure Conversion) Ordinance 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of [656] his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his [432] cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined. In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

In an earlier chapter I described a ceremony for children about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the village boundaries. When the children came back to the village (which was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little different for my interpreter who had been to Martyr's School and who therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods.

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

It is thus understandable that though the entrepreneurs are often not acceptable in leadership roles in their own villages, they are acceptable in elective roles where the selection lies with a wider community. It is likely that the stimulus they give to economic change among the Orokaiva is considerable. When they achieve their goal of owning motor transport, which gives tremendous prestige, many will consider that their 'way' has been substantiated and the impact of their example will be multiplied.

Summary

Data are presented on the four rural entrepreneurs among the Orokaiva. Because the sample is so small few generalisations can be made. All had travelled much more widely than the average villager, had been in paid employment for longer and had held posts of greater skill and responsibility than the average villager. Whereas most Orokaiva people established their gardens on their traditional lands, the entrepreneurs have deliberately not done so. The three who had developed their enterprises without financial help were all eldest sons who benefited from the labour of junior relatives. All have attempted to employ permanent labour, but none has succeeded.

There were marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spent less time than villagers did on subsistence gardening, but twenty times more in cash-cropping and trading; they spent much less time on traditional social obligations and much more on community leadership.

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Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
38	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager, (1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

(1) He has planted 1,161 cocoa trees.

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

21: Belshaw B-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

as a first step in their wider rehabilitation. Lectures were given by Europeans, adult illiterates were taught the three " r's," sports were organized, and as a welfare measure the old people were given prepared meals in a " soup kitchen." Once again the response was enthusiastic, indicating a real demand. As refugees moved out of the camp back to villages, it was common for young men who had missed their Mission schooling, or who considered that schooling to be insufficient, to return to Ilimo for the sole purpose of continuing their instruction. Unfortunately, under the unsettled conditions they had to be sent home again. 731

As soon as the danger area had been determined villages outside it were re-started, leaving only 1,500 people at Ilimo by April. These 1,500 people were not permitted to return to their village sites except under special passes to obtain garden produce. An administrative officer was detailed to undertake research into native land tenure and social groupings in the area with a view to determining sites for re-settlement.[3] As a result of his recommendations these refugees were returned to certain areas of land which they were said to own, or which had been granted to them by neighbouring villages. Women remained at Ilimo until shelters had been erected for them, but by June they had rejoined their husbands and the camps were evacuated. A Government patrol post was set up at Saiho in the centre of the evacuation area, and medical facilities were transferred to Saiho from Ilimo.

The policy behind these moves was aimed at re-establishing gardens in the shortest possible time, and the building of an improved style village-system. In addition consideration was given to the possibility of large-scale community development. But there were many difficulties in the way, and the method of carrying out the policy often created further difficulties.

In *Orokaiva Society* Williams characterizes the people as being fierce fighters but gentle and harmonious in their domestic and intra-group relations. Whether or not that was true twenty years ago, Europeans with recent experience of them say that they are now highly excitable, with rapidly inflamed tempers which, however, quickly subside. When under the influence of temper they are said to be violent, and to vent their violence on people near at hand, particularly wives. There is a tendency towards suicide in the case of disappointed love or the loss of children, and they will throw hysterical fits. In view of these conflicting accounts it is impossible for me to judge whether the emotional activity I observed after the volcano was a mere passing phase or represented deeper emotional states. At the same time there were a number of influences present which certainly did nothing to reduce nervous tensions. 157 152 [762]

It is not difficult to describe these. The people were in refugee camps, and the atmosphere of refugee camps is almost always one of strict control, in contrast to the freedom of village life. Work had to be found to keep people occupied, and much of it was camp erection work that had no clear or immediate relevance to the desire 731

[3] See memorandum by H. T. Plant, " Re-Establishment of Isivita Villages," March 24, 1951, with Map and Appendices on Land Ownership, Class and Tribal Groupings. [113]

614 its efforts upon what were then the Jegase and Timuru clans, to the
463 exclusion of Seho. When my wife and I came to Sivepe, Jegase at once
177 claimed us, built our house for us and was ready to perpetuate the
123 familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of
614 Jegase did not actually make much difference. Seho grew just as much
197 coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income
184 as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but
614 with brief experience in the A.P.C. before the eruption) made up in
157 shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to
871 Standard 6) at Sasembata School; so far only one has gone further.
614 One young man, who had finished Standard 6 and a young woman who had
189 done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

184 I have already pointed out that in Inconda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

Table 4

Correlations for each test

	Cube Imitation	Bead Threading	Passalong	Form Assembly	Pattern Matching	Kim Game	Gestalt Continuation	Total test score	Age	Standard reached	Years at school
Cube Imitation	-	542	273	554	334	413	397	687	-186	394	339
Bead Threading		-	337	460	244	251	255	569	-213	237	239
Passalong			-	261	435	364	386	610	-338	383	350
Form Assembly				-	494	265	448	650	-166	411	358
Pattern Matching					-	415	613	720	-309	639	584
Kim Game						-	405	790	-331	379	329
Gestalt Continuation							-	682	-385	492	416
Total test score								-	-410	597	530
Age									-	-575	-530
Standard reached										-	906

Decimal points have been omitted.

9: Kearney P-5 (1963) 1966 QJ23 Orokaiva QJ23

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Table 5

Analysis of variance between the samples

Source	Sum of squares	d/f	Variance estimate	F ratio	Significance
Between samples	3,737.2	6	622.866	6.931	**
Within samples	11,951.0	133	89.857		
Total	15,688.2	139			

** denotes significance $p<0.01$.

Table 6

The t values between the samples

Sample	Beporo	Ex-servicemen settlers	Borugasusu	Inonda	Plantation labourers	Sivepe	Ongoho
Beporo	-	2.09*	3.67**	**	**	**	**
Ex-servicemen settlers		-	1.17	1.5	1.7	2.1*	3.8**
Borugasusu			-	< 1	< 1	1.2	3.0**
Inonda				-	< 1	< 1	2.1*
Plantation labourers					-	< 1	2.1*
Sivepe						-	1.4
Ongoho							-

The samples have been arranged here in descending order of magnitude.

* denotes significance at $p<0.05$.
** denotes significance at $p<0.01$.

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husbands of his sisters' daughters, as is customary. Most of all, he was a careful man who put whatever he accumulated to the most prudent use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader. A leader, he said, must be very smart and understanding, have a lot of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited usefulness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all Jegese. As I had been apportioned to my clan, they were much more helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any [126] of the others. He was the only one to have recognised that our [129] civilisation actually does have some moral values. I recorded stories from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a
157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned serviceman's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepe, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepe, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the woman's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were thought extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepo, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepo was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepo, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interpret a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepo was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepo leadership.

361 mingled more freely as a result of travel on the government
571 roads and trails (which they have to keep in order), trading,
Mission and official gatherings, and other new opportunities
224 for interpersonal relations. One special feature of Orokaiva
life in modern times is the annual burning-off of grasslands
[628] by hunting parties in order to get wild game. This has
probably involved the assembly of larger groups and is one
of the few activities which could induce intersettlement co-
311 operation. The writer sensed the parallel of the crude local
fires set for garden clearing and the general burning-off
of grasslands to the major burning and blackening in the
wake of the volcano—doubtless a mighty job of clearing to
the Orokaiva eye.

● 159 Within the limits that brief characterizations of personality
norms can be valid, observers seem to agree that the Oro-
kaiva as individuals have traits congruent with the social
structure that favor individuality and mobility. Even the
casual visitor gets a sense of independence, alertness, self-
reliance, "strong talking," dignity, restraint, imperturbability
at meeting the unexpected event, and high-tension inter-
personal behavior in general. This is in particularly striking
contrast to such an elaborately structured society as that
of Samoa, where the writer had been working shortly before.
In informal groups seen around the camps and waiting at
airfields for transport, women and children, far from being
in the background, kept up a busy verbal exchange with the
men. The Administration has considered the Orokaiva ter-
[657] ritory as perhaps the best recruiting ground for its Royal
[625] Papuan Constabulary on the basis of these personality char-
acteristics, including ability to meet crisis conditions such
as patrols may encounter.

791 The Orokaiva religious history is also particularly inter-
esting here. Their traditional faith, Williams says, though
in many respects vague and locally variable, concerned itself
"primarily with the spirits of the dead" and their influence
[961] on the welfare of the living. Death was appraised with
[789] particular realism, although it was considered ultimately as
the result of supernatural causes. Magic had a consistent
place. Orokaiva country, however, has been swept in modern
794 times by a series of new cults indicative of religious adap-
tability in the face of fresh experience. First to come into
prominence was the *Baigona,* or "snake cult" of 1911-12,
succeeded from 1914 on by the so-called "Taro cult" which
in turn had undergone a series of local reformulations by
the time Williams reported on it in 1924.[7] Central features
of the Taro cult were association of successful taro cultiva-
tion with the ancestral spirits, approached by way of a
"shaking-fit" technique of revelation, together with some-
what new types of public ritual and symbols, including frag-
mentary elements from Christianity. Later Belshaw and
others reported that "Christian Co-operative Evangelist"
societies, which were developed by the Anglican Mission
among some Orokaiva converts for the cooperative growing
474 of rice and other crops, tended to assume a somewhat parallel
668 and absorbing mystical agriculture context. Rumors spread
791 of "an order from the King (of England) that co-operatives

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7. *Orokaiva Magic,* Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal,* 15, 3 pp. 448-463 (1917). Materials are also found
[113] in the official reports of the time.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

This general irritability was carried back into the villages, where worry was not very much less than in the camps, and even the degree of daily control by European authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

[224]

[476] Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

128 **The activity patterns of selected individuals**

The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 38 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village,

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1 See p.292. A 4

A,[See Category 433, p.292--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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his position being acknowledged by the widest range of people. Although in no sense a 'director' of village affairs he was the last villager to receive an otohu[1] and the first to obtain any formal education.[2] His position is therefore derived from his apparent ability to encompass both the 'old' and the 'new' ways, thereby gaining the respect of most members of the community. This elevation in his status is a recent development, not evident during Rimoldi's stay in the village, and in all probability influenced by the fact that he is an adopted member of Timumu clan and only 38 years old.

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[431]
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A married man with five children, he lives next door to his ageing step-father and mother giving them, as well as other elder villagers, considerable gifts of food and assistance with such customary group enterprises as clearing garden sites, harvesting yams and house construction. Further, with an age mate from Soho clan, he accepted full responsibility for the organisation of the major sago-making venture during the dry season, at the request of his mother's brother. Among younger members of the village his stature is derived from extensive experience in paid employment[3] and his active interest in and responsible approach to cash-producing activities within the village.

Linton has the largest cultivated area of those surveyed and the largest holding of yams. Also, being the owner of a shotgun, an active coffee grower,[4] an OCGS shareholder and, during the survey, erecting a house of local materials under contract for Saiho hospital, his commitment to the external economy is both varied and substantial.

1
The otohu was an ornament presented to selected initiates which conferred on them important social obligations. In a discussion of the nature and purpose of the otohu Williams (1930:204-5) states: 'Adjectivally, the word seems to indicate "well-behaved" in the widest sense of the term. It was applied to a law-abiding and amenable member of society, and perhaps the nearest equivalent in our language would be "decent" or "respectable". The emphasis is certainly laid on the milder virtues rather than the more heroic. Thus a man was otohu or otohu-ambo who did not quarrel, who did not beat his wife or children, who did not ill-treat his dogs and pigs, and who did not steal.... Diligence bears some part of this rather complex ideal, and so certainly does generosity....
We may conclude, therefore, that the possession of an otohu does involve a social obligation. It is an honour and a privilege bestowed by society, but it means that the recipient should settle down as a thoroughly amenable member of that society.' In Linton's case the otohu was presented at a specially arranged ceremony, apparently in acknowledgement of his upholding of traditional Orokaiva values.

2
He spent a year at Isivita school prior to the second world war.

3
A total of 9½ years spent, largely in an unskilled capacity, in Port Moresby, Lae, Salamaua and elsewhere in the Northern District.

4
Although without a coffee garden of his own, he has successfully asserted a claim to trees acquired by another Timumu man following the subdivision of a communal planting established about 1956. See Rimoldi 1968:53-4 for a description of this planting.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 512 infant children, partly because he suffered from a leg ulcer for some weeks, but also partly because of the social aspect of such visits.

In all, productive tasks account for 32 hours, or 65 per cent of the total for the week, and two-thirds of this amount is spent in activities in the subsistence sector. Of the weekly total of 49.6 hours, 11.3 hours or 23 per cent are related to the monetary sector and external agencies such as the mission.

472 [159] Lawrence. Aged 36, Lawrence is the leading man and entrepreneur. He is married and has four children, the eldest being a boy of twelve. Although he only reached standard IV at the mission school, he became a mission teacher and spent four of his five and a half years in this occupation in New Britain. He subsequently spent periods while resident in the village as a labourer and carpenter's assistant and served for two years as elected local government councillor for the villages of Inonda, Hohota, Mosou, Ajoro and Sewa. Lawrence acquired 230 coffee trees from his classificatory father and has rights to over 100 mature coconut palms. In 1963, he opened the trade store in the village. In November 1964 he had a total cultivated area of 1.23 acres, of which 0.9 acres were under taro. Unlike most other households, he has no sweet potato garden and only a token number of yam vines, cultivating banana, corn and Xanthosoma instead as subsidiary crops.[1] His household has a lower area of food garden per member than all but one other household and he spends less time in subsistence gardening than all the six selected individuals apart from Bemba.[2] Like most household heads, he is rarely absent from the village. During the survey he spent two days at a feast which almost everyone in the village attended, two days visiting his wife's father in hospital, two in Port Moresby with the researchers, one on work for the Administration during the national elections and one caring for his sick daughter. In addition, he was inactive through sickness - mainly influenza - for nine days.

Through a combination of several factors, including his position as senior resident member of the Andiriha clan, and the knowledge and experience gained during his periods as teacher and councillor, Lawrence is developing his entrepreneurial skills towards the

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1 The same pattern was evident for this household in 1962 (G. Hogbin: personal communication).

2 However, Lawrence's household is above average in terms of cultivated area per able-bodied person.

husbands of his sisters' daughters, as is customary. Most of all, he was a careful man who put whatever he accumulated to the most prudent use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader. A leader, he said, must be very smart and understanding, have a lot of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited usefulness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all Jegase. As I had been apportioned to my clan, they were much more helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

123 554 159 to help others; he spoke softly and gently but when necessary could be firm and tough; furthermore, he had a relatively wide experience of the outside world. He had been a hunting leader before this task was transferred to the representative of the church council; he was also a leader in football. He came of a lineage with small land holdings in the Sivepe area, but his father had bought rights to additional holdings (with money Robert had earned) and his mother's brother had given him the use of other blocks Robert will eventually inherit.

159 When we came to the district he had just started his new house and was living, like many others in a small older one he had brought from Old Sivepe. He sold us his new house and stayed in the smaller one until we had gone. Though his house was thus among the most primitive in the village, it attracted more village visitors than any other; Robert and his rather attractive wife were popular. When the women's club house was to be built, and when Lawrence had given the land, it was Robert to whom the women turned as a work leader. It was also Robert who decided that the work on the village houses and the mission hospital had more urgency (and that the clubhouse had better wait until it had ceased being a pawn in female factionism). Robert went to Port Moresby for a few months after a violent episode in his tumultuous marriage, hoping he would earn enough money to open a trade store.

He had about four years of working experience outside the village, as a houseboy, with the A.P.C. and on road work. Since then it was his ambition to start in business; in the early sixties, Jegase seems to have made some attempt at a trade store with disastrous results. He hoped to do better the next time, but a trade store opened up in an offshoot of Sasembata village just next to Sivepe, so that this is destined to remain a dream. Robert composed several songs over the year, and was constantly practising his drum. People usually waited for him before a dance practise could start, though he was not formally the dance leader. He also managed all the diplomatic manoeuvers necessitated by our presence. He did this with great honesty; I [123 could always rely on all he said. Indeed, if it had not been for him 115] at all. He also piloted us through the maze of the Orokaiva exchange system. He was the only person who never imposed on us, never asked for gifts. There was perhaps some calculation in this, as we were more disposed to respond to generosity than to the sharp trading engaged in by some others.

He had stood as a candidate for the council two years earlier but had been defeated, partly due to opposition from his affines. His first formal leadership role (apart from hunting and football) was as representative for Sivepe on the land adjudication committee. His father-in-law would have been better qualified, as he knew the land boundaries better, but he could not hold both committee posts simultaneously. It was interesting to see that in this situation, where the

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any of the others. He was the only one to have recognised that our [126] civilisation actually does have some moral values. I recorded stories [124] from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a
157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a pig feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned serviceman's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use[1], Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

TABLE II/1

NORTHERN DISTRICT: POPULATION 1966
(*Source*: Department of District Administration, Popondetta)

Popondetta Sub-District			
Afore			
Musa	2509		
Managalase	5550	8059	
Ioma			
Aiga	2384		
Binandere	3693		
Waria	1717	7794	
Popondetta			
North Coast	4660		
Sohe – Popondetta	3588		
Popondetta	3533		
Oro Bay	5181		
Saiho	8211	25173	
Town			
Locals	900 (approx.)		
Europeans	300		
Rural			
Locals	800 (approx.)		
Europeans	260	2260	
Total			43,286
Tufi Sub-District			
Cape Nelson	3642		
Collingwood Bay	2936		
Dyke Ackland Bay	1724		
Europeans	20	8322	
Kokoda Sub-District			
Kokoda	2018		
Hujara	3195		
Wawonga	1227		
Europeans	30	6470	
Total			58,078

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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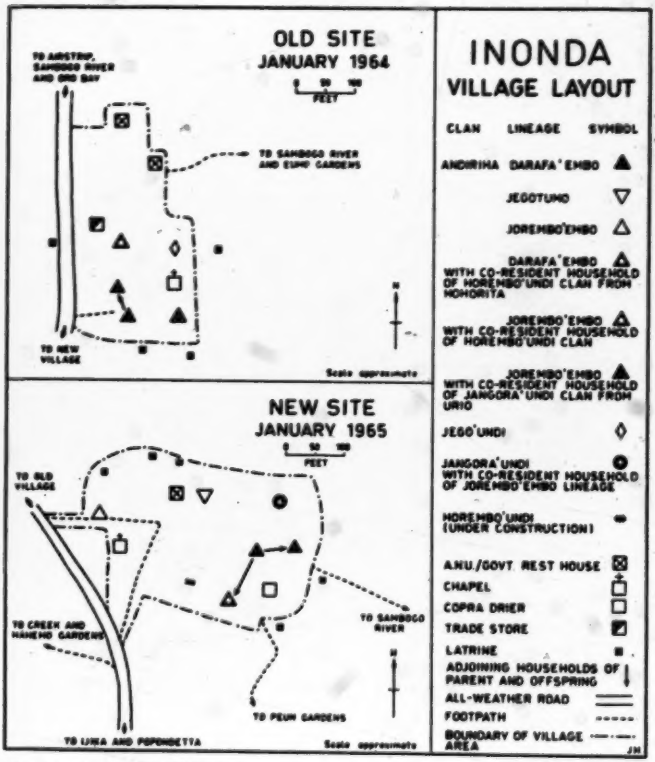

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them.

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed.

Sivepe. I stayed in Sivepe for about nine months, from September 1966

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud.

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile.

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater.

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage.

3 Orokaiva: *ina*; botanical: *sacharum edule.*

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepo was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepo were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons,
132 compared with an average of 100 in the Buna Census Division. The Sivepe people live on the highly fertile slopes of Mt Lamington,
131 receiving an annual rainfall of about 160 inches; Inonda's land is lower, flatter and comparatively poor and receives about 95 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

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[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kubuna, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

743 The Public Health Department maintains a large base hospital
366 at Saiho, 5 miles from Sivepo. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepo
[432] people in our sample sell vegetables there regularly but seldom
[438] buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 We could not complete this introductory sketch of local
648 facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepo villagers. Fighting was fierce and many of the old men we talked to had been close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the
[121] Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepo died of malnutrition. In addition, there was very thorough recruiting
[161] of local men for subsequent phases of the war elsehwere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

[101] [464] [797]

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepe was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Togahau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3* illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In 1952-3 occurred the major amalgamation of dwellings into Beporo (166) village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew 161 162 rapidly. Table 4 shows the estimated distribution of population

[TEXT CONTINUED ON PAGE 42]

Table 4

361 162 103 161 Distribution of total Yega population by villages in 1960, 1962, and 1964

	Village name	1960 estimated	1962 November	1964 July
A.	Coastal			
	Surilai	60	52	61
	Niniyanda	44	9	5
	Kanaunje	15	17	11
	Basabuga	17	19	14
	Tarebosusu	7	10	Nil
	Banumo	14	8	10
	Goabe	19	15	19
	Siumbago	9	13	Nil
	Beporo	335	275	164
	Gona Mission	7	6	18
	Subtotal	527	424	302
B.	Inland			
	Gatara	6	6	6
	Konje	Nil	6	97
	Otobejare	Nil	8	13
	Imangada	Nil	3	8
	Mumburada	Nil	17	47
	Ononda (D.A.S.F.)*	Nil	5	1
	Ononda	Nil	41	66
	Binjapada	Nil	51	61
	Jamberoda	Nil	Nil	15
	Subtotal	6	137	314
	Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

161 162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

361 166 242 245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed [423] hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). A Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6). A

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land tenure and work organization.

It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepa, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

(1) Population density in the Saiho census division (which includes Sivepa) is 72.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 43 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

714
142

[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

131
36
[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

137 The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

132 replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

175 The first reported contact between Europeans and Yega was during an expedition
177 along the coast by the Lt Governor of Papua,
799 Sir William McGregor, in 1895, but the first real step in the process of change occurred with the establishment of an Anglican mission
177 school on Waususu Point in 1909. From this
464 time until the outbreak of World War II,
466 Yega men began leaving their villages to work

[P.5-A]

134 the mune of Sivepa, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called tumene is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the Hydrographers foothills. They are grey to grey brown, and are called hora or hoheri. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepa. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepa, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepa is not at all untypical for the Saiho Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepa population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jegase and Timusu clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepa clan (Saho) has greater land resources, and that the Saho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Sova Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 580 acres may be classed as good garden land, whereas the present level of subsistence gardening can be maintained with 127 acres (1963: 10).

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepe has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepe of two additional Jegase families and six Sorovi households. An analysis of Table 16 will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepe. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepe population, we find only six men of that age group and only three of these were children in Sivepe in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

166 The second striking change is in the number of children--there are almost twice as many of them in Sivepe today as there were in 1951. It seems likely that this increase should in part at last be due to the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepe is a continuous process due to virilocal residence; a far more significant demographic process is the outflow of men as a result of labour migration. Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timumu) sample were employed outside Sivepe in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepe and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepe," as these men had never lived in Sivepe at any time but had been residents of Gurombi before they became labour migrants. There were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
167 dispensation, the greatest favours always went to the largest villages.
The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
[464] under consideration. There was the same rise in the number of children;
[166] there was little loss through labour migration (only one man in 1962;
[621] as Crocombe and Hogbin report; and still only one today). The decline
in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepe, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same wild and cultivated crops as in Sivepe. Before the eruption, the
361 concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
161 350 live in Hohorita and the rest in the three other villages. The total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepe, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV) developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission
A [See Cat. 116, p. End Map 13--Analyst]

of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made much difference here. For instance, nobody in Sivepa, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepa relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

Compared to the two sample villages, Hohorita is a more densely concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant clans of the front village section were Horeopa and Oripa; in the back, Basupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepa.

In contrast to Sivepa, there is no tendency for clan groups to fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepa, but in Hohorita three-generation households were more common and bachelor's houses were not found. Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepa. A considerable number of marriages and remarriages occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepa.

to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamiagina slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

25: Schwimmer E-5 (1966-1970) 1974 QJ23 Orokaiva QJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like. 121

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

101 131 241 161 361 602 114 582

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

TABLE II/2

POPULATION BY AGE, SEX, MARITAL STATUS AND CLAN

(a) *Comparison Between Inonda and Strepe, 1951 and 1966*

	Inonda		*Strepe* 1966				
	1966	1951	*Sorovi*	*Seho*	*Jegase*	*Total*	1951
Male Adults (Total)	10	5	6	8	14	28	15
Widowers	2		1	–	2	3	
Married, residing with wife	7		5	7	8	20	
Single	1		–	1	4	5	
Female Adults	10	8	5	11	18	34	25
Widows	2		–	1	3	4	
Married, residing with husband	7		5	7	8	20	
Single or living without husband	1		–	3	7	10	
Children	22	35	15	27	33	75	59
Total	42	48	26	46	65	137	99

(b) *Strepe male adults, by clans and age groups*

Age Groups	*Sorovi*	*Seho*	*Jegase*	*Total*
16–25	–	1	3	4
26–35	2	–	2	4
36–45	2	2	4	8
46–55	1	5	1	7
Over 55	1	–	4	5
Total	6	8	14	28

Note: For the purpose of this table, I have included entire households with the clan of the household heads. The breakdown of female population into clans must be understood as meaning: 'Attached to a household of Sorovi, Seho or Jegase clan'.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
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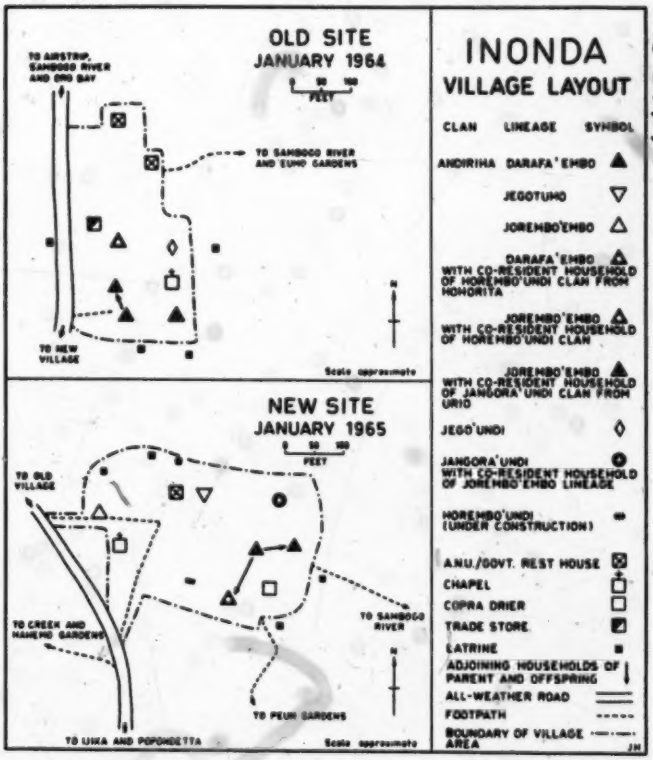

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *saccharum edule*. 262

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land
131 is lower, flatter and comparatively poor and receives about 95 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kuboma, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

[10] tribe, which included Sivepe. It occupied the volcanic slopes
[133] under fairly uniform and distinctive ecological conditions. The
[162] mountain Orokaiva now include roughly the 8,000 people in the closely-settled Saiho Census Division areas, that is, the people who have been called 'Wasida' or 'Periho'. They also include the members of the few adjacent villages who are the only 'Sangara' people surviving the 1951 eruption of the volcano.

[62] Belshaw (1951:2) reported that among the mountain Orokaiva
[36] until 1951 'the residential group...consisted of a number of separated hamlets.... Hamlets grouped themselves together under a common name, such as Wasita 1, Isivita 1, Isivita 2 etc.... Each hamlet group, or "village" in administrative parlance, was separated geographically from its neighbouring hamlet group'. The two 'villages', Isivita 1 and 2, had comprised 19 named 'hamlets' and represented the Isivita 'native district' which, Plant[1] (1951: Appendix 4) says was joined with the Sasembata (8 hamlets), Koropata, Wasita, Awala, Soroputa, Sairopi, Mumuni and Wairopi districts[2] to form the Periho tribe. This 'closely approximates to' what Williams called the Wasida tribe.

[162] Shortly before the eruption of Mt Lamington in 1951, Sivepe, Binduta, Mahihita, Pusahambo, Korinasusu and Heherita[3] were grouped under the name of Awala 2 and had a total population of 250,[4] compared with the range of 150 to 400 which Belshaw (1951:2) attributes to 'hamlet groups' in the area. There is a radical difference in size between the small hamlet described by Belshaw and the characteristic nucleated village of post-eruption years (excluding interim evacuation 'camps'). Nevertheless, we hereafter refer to both as a 'village' when not quoting. This does not

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[1] Plant uses the term 'village group' for Belshaw's 'hamlet group' or 'village'. Williams (1930:131) refers to Belshaw's 'hamlet' sometimes as a 'village' and sometimes as a 'village group'.

[2] He earlier (1951:3) omitted Mumuni and Wairopi - see p.31. On Map 1 see Hururuta for Mumuni District, and Ombisusu-Ajeka area for Wairopi District; the Sairopi people are about 4 miles south of the Mumuni.

[3] The last 3 'hamlets' were not re-formed after the eruption; another which was established about this time took the name Awala No.2.

[4] In a sample of 50 nearby hamlets in other groups in the Saiho Census Division the average hamlet size was 36 persons as against 41 in this group. Note also that in 1923 the Awala hamlets (including those in Awala 1) may have numbered 15 (Williams:W.83).

C2| obscure any important differences in structure and our historical
36| data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepo now has a population of 120 and is linked with Binduta, several hundred yards away, and with Wahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

13| Sivepo is situated on the western bank of the Sohu River, a
49| tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepo on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepo it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797| There were very few facilities for formal education in this
871| tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepo, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepo are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepo children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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[1] To be distinguished from Awala 2, the 'hamlet group'.

[2] The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

[3] A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepo or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepo people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to attack government parties,[3] peace was secure within 4 years. [121] Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes under the novel conditions brought about by the arrival of the [166] Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

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The social setting

(a) Population and settlement (see Table 1:2 and Map 2)

The indigenous population of the sub-district totals some 36,500 people of whom 26,500 are Orokaiva and occupy the central lowland area. There are, in addition, an estimated 1,100 indigenes from other parts of Papua-New Guinea, either employed by the Administration or European planters (as contract labour) or operating smallholdings under a land settlement scheme. The European population of 495 persons falls into five major categories: Administration, Anglican mission, army, commercial and plantation. Most live in the district headquarters of Popondetta (population 600) and, like the indigenes from other districts, apart from indigenous Orokaiva settlement.

Table 1:2

Popondetta sub-district: population in ethnic groups by location and occupation (1965 estimates)

	Ethnic group		
	Indigenous*	Asiatic	European
Location			
Popondetta township	300	13	300
Rest of sub-district	36,161**	0	182
Total	36,461	13	482
Occupation***			
Administration	n.a.†	0	160
Anglican mission	"	0	79
Army (PWD)	"	0	68
Commerce	"	13	60
Plantation/settlement work	261	0	115
Plantation labour	1,813††	0	0
Urban wage labour force	300	0	0
Sub-total	2,374	13	482
Subsistence farmers	34,087	0	0
Total	36,461	13	482

* Includes Orokaiva and other indigenes from Popondetta and other sub-districts.

** 26,500 Orokaiva, 9,000 other local indigenes and 661 indigenes from other sub-districts.

*** Includes dependants.

† Not available

†† 600 from other sub-districts.

Source: DDA, Popondetta.

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Tegulau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

FIGURE 4:1

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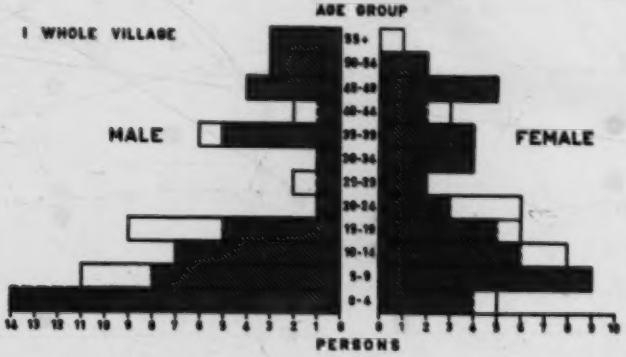
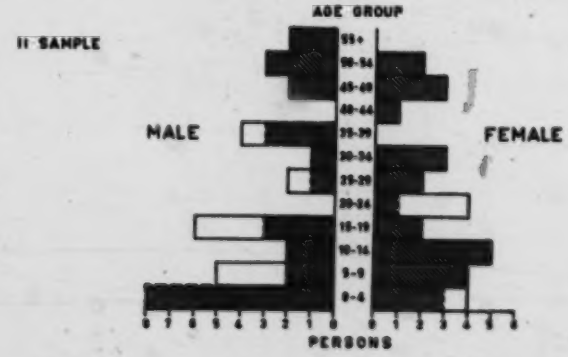
SIVEPE: AGE-SEX STRUCTURE

SHOWING NET CHANGES JANUARY 1964 TO JANUARY 1965





POPULATION AT JANUARY 1964 POPULATION AT JANUARY 1965

36 Like Sivepe, both sites of Inonda were laid out as line villages.
62 Here the tendency for grouping of kin is more marked but still not
342 rigid (see Map 6). The houses, with a mean size of 282 sq ft, are built largely of local materials, but incorporate some exotic items including nails, and, in certain cases, corrugated iron roofing from nearby wartime dumps. In addition to the residences, there is a rest-house, a copra-drier, a small trade store and a chapel. Brief weekly services are held by a villager who was once a mission teacher and who also owns the store.

162 In January 1964, the resident population of the village was 35, with 16 adults, a drop of seven since the time of Crocombe and Hogbin's survey (1963:58). The nine households had an average of 3.9 individuals or 1.8 labour units. No births or deaths occurred during the survey but there were three arrivals and seven departures giving a total of 31 people, including 16 adults, in January 1965.
166 In addition, several people from other villages stayed temporarily with kinsmen in Inonda. At first, there were two local clan branches in Inonda, the Andirihaha and the Jego'undi, the latter being represented by a single family.[1] When the village moved in 1964 the Jego'undi man, having virtually no rights to land near the new site, decided to move instead to the nearby village of Mosou, which is built on his land. He, his wife and four daughters were from this point (July 1964) excluded from the daily interviews, which explains the most prominent change, namely the loss of female children, in the age-sex structure diagram (Fig.4:2).[2] In contrast with Fig. 4:1 for Sivepe, Fig.4:2 shows neither males nor females in the 15 to 19 years age group; the largest concentration of adult males is in the 20 to 24 years group, where Sivepe has none. The proportion of long-term absentee adult males was 16.6 per cent in January 1964 (i.e. two out of twelve) and 25 per cent in 1965, the rise being due to the departure of the Jego'undi man. One absentee is normally resident in Port Moresby and seems unlikely to return except on retirement; the other, his brother, lives less than three miles from Inonda at Ijika near Hohota, which is his widowed mother's village, and he constantly asserts his intention to return to Inonda.[2]

62 The major agnatic links of the Andirihaha people are with Hohota, but extend to Kakandetta and Hanakiro, ten miles away, while

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[1] A third local clan branch, the Horemba'undi, is represented in Inonda by a single household, which is resident through affinal ties and it has no right to Inonda lands, although it is allowed to make food gardens there.

[2] i.e. two of the three 'absentees' continue to reside in subsistence villages, unlike the Sivepe absentees who are all in, or seeking, full-time wage employment elsewhere.

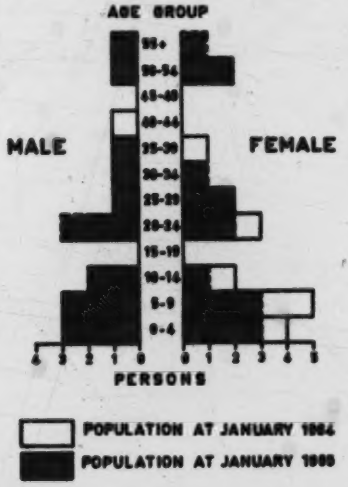
[TEXT CONTINUED ON PAGE 55]

A,[See Category 162, p.55--Analyst] B,[See Category 162, p.39--Analyst]

FIGURE 4:2

0162 **INONDA: AGE-SEX STRUCTURE**

SHOWING NET CHANGES JANUARY 1964-JANUARY 1965



GZ1 non-agnatic ties have led to close relationships with people in Ajoro, Sewa, Mosou, Urio, Jonita and Hohorita.

463 As in Sivepe, most of the men have had labouring jobs and two had also been teachers for the Anglican mission - one for 27 years, the other for 6 years, including 4 in New Britain.

871 Three household heads, all over 40 years of age, have had no education. One household head and one woman reached standard V and the woman's husband completed standard IV. Two young men, one a household head, served as farmer trainees at Popondetta Agricultural Station, and another completed eleven months of the course at the aid post orderly training school at Saiho.

554 In addition to his six years with the Anglican mission, one of the ex-teachers, a man of 35, was for two years local government

164 man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

512 Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

512 The adult residents of Sivepe are active, on average, 40.6 hours 433 per man-week, although, as Fig.6:2 demonstrates, there is a sub- 241 stantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3[A] illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In [166] 1952-3 occurred the major amalgamation of dwellings into Beporo village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew 161 162 rapidly. Table 4 shows the estimated distribution of population

[TEXT CONTINUED ON PAGE 42]

Table 4

361 162 103 161 Distribution of total Yega population by villages in 1960, 1962, and 1964

	Village name	1960 estimated	1962 November	1964 July
A.	Coastal			
	Surilai	60	52	61
	Niniyanda	44	9	5
	Kanaunje	15	17	11
	Basabuga	17	19	14
	Tarebosusu	7	10	Nil
	Banumo	14	8	10
	Gombe	19	15	19
	Siumbago	9	13	Nil
	Beporo	335	275	164
	Gona Mission	7	6	18
	Subtotal	527	424	302
B.	Inland			
	Gatara	6	6	6
	Konje	Nil	6	97
	Otobejare	Nil	8	13
	Imangada	Nil	3	8
	Mumburada	Nil	17	47
	Ononda (D.A.S.F.)*	Nil	5	1
	Ononda	Nil	41	66
	Binjapada	Nil	51	61
	Jamberoda	Nil	Nil	15
	Subtotal	6	137	314
	Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

161 162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

361 166 242 245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed (423) hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6).

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

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[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

134 the numa of Sivepa, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called tunona is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the hydrographers foothills. They are grey to grey brown, and are called hora or hohori. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepa. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepa, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepa is not at all untypical for the Saibo Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepa population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jegase and Timunu clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepa clan (Saho) has greater land resources, and that the Saho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Seva Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 580 acres may be classed as good garden land, whereas the present level of subsistence gardening can be maintained with 127 acres (1963: 10).

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[659] refugees could have negotiated directly with Ilimo. The hosts
generously supplied food, grew extra food in special plots,
provided abundant building material from their land, and a site
for the camp and helped with the preparation of the camp while
the evacuees still lived at Wairopa, in return for which the
government made various gifts which Ilimo evidently regarded as
adequate payment. At no point, during the existence of the camp,
did the refugees develop an organisation which dealt directly with
the Ilimo people. Thus, the only contact between hosts and guests
was on a social level.

The camp was built at some little distance from the village.
Refugees who had friends and relations in Ilimo used to go over to
the village and visit them. There was for instance, at the time
of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe
people paid visits to the village. There was an Easter celebration
at the camp to which the village people came. When the camp broke
up, the government gave a feast to the Ilimo people, on behalf of
the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact
between different "tribal" groups (or distant groups) of Orokaiva
has become more intensive since the eruption, we cannot confine
ourselves to contacts occurring in villages such as Sivepe or
Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new
organisations (to which I shall refer later) through labour migration
and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new
administrative centre of the Northern District, has about 4,000
inhabitants, almost all Orokaiva; among its inhabitants all parts
● [162] of the Northern District are represented, including Sivepe. The
Sivepe people had many relatives there, mostly hailing from the
Sasembata district, and employed in some regular job in the town.
These jobs are partly in personal service to Europeans, but also
in light industry, the retail trade, public works and public service,
and go far beyond the little employment that was available in pre-
eruption Higaturu (with a population which, judging from aerial
photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation
of the Orokaiva which is learnt by the men from the villages when
they pay occasional visits to Popondetta. The town generates a new

Inonda people. They built a da of their own at a very short distance from Inonda; both these da were very close to the airstrip and abandoned now. Although these two da were less than a hundred yards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohovita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

Sivepe, with its present composition, goes back in time no further than about 1948 when the village Pamba was built, combining an older Sive and a now defunct village Pusahambo. The census list current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Garombi were considering moving in and would have been welcomed.

At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of
162 the population by age, sex and marital status (see Table 16) shows that
464 the labour force lacks a proportionate number of young men in early
adulthood; the number of men in the vigour of life is somewhat smaller,
166 in Sivepa, than the number of women. The reason for this change is
167 that young men leave the village to earn money elsewhere. They often
464 do this before marriage, so that the bachelors' houses tend to be
occupied by a much smaller number than formerly; but after they are
583 married they usually do not at once settle down in the village. It is unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his
[484] affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few
593 children, but they receive regular gifts of money from their husband.
592 Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden
[469] and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepa, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepa. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
350 live in Hohorita and the rest in the three other villages. The
161 total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepa, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[A] developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripe clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission

A [See Cat. 116, p. End Map 13--Analyst]

TABLE 1

CASUALTIES OF THE MOUNT LAMINGTON DISASTER

731 (Source: Department of District Administration, Popondetta, file 7.3.2)

[162] Total residential population, "Sangara" group (2195 - 195) 1964

Known East Side "Ifainembo" casualties	480
Wairope Camp, list of reported casualties	92
Commonwealth Royal Territorial Service, casualty list	90
Prisoners held at Higaturu	16
Royal Papuan Constabulary and dependents IHC	80
Andemba dead (ex Andemba, other villages and Higaturu)	800
Known Isivita dead	14
Est. dead Sangara mission station personnel	100
	3636
Less: Known Sangara survivors	170
Total Estimated Dead	3466

TABLE 2

162

ADULT POPULATION OF MULTI-CLAN VILLAGES
IN THE SAIHO CENSUS DIVISION, 1966

According to census records in the Department of District Administration, Popondetta. Adult = over 16 approximately.

Village Name	Male	Female
Agenahambo	49	64
Awala	101	136
Caroubi	76	56
Hamburata	55	36
Hoborita	193	155
Isoge	66	55
Kendata	196	158
Kiorota	225	204
Mamuni	138	125
Sasembata	77	70
Singi	70	66
Sivepe	69	55
Torogota	95	51
Total adult population of division	2573	2065

Notes:

1. The total population of the division, including children, was 8,211.

2. Many persons normally resident in hamlets attended the census enumerations in the main villages, which were not as populous as these figures might suggest. My own data for Sivepe adults show 28 males, 35 females.

TABLE 6

NORTHERN DISTRICT: POPULATION 1966 211

162

Source: Department of District Administration, Popondetta

POPONDETTA SUB DISTRICT			
AFORE			
Musa	2509		
Managalase	5550	... 8059	
IOMA			
Aiga	2384		
Binandere	3693		
Waria	1717	... 7794	
POPONDETTA			
North Coast	4660		
Sohe - Popondetta ...	3588		
Popondetta	3533		
Oro Bay	5181		
Saiho	8211	... 25173	
TOWN			
Locals	900 (approx)		
Europeans	300		
RURAL			
Locals	800 (approx)		
Europeans	260	... 2260	
TOTAL			43,286
TUFI SUB DISTRICT			
Cape Nelson	3642		
Collingwood Bay ...	2936		
Dyke Ackland Bay ...	1724		
Europeans	20	... 8322	
KOKODA SUB DISTRICT			
Kokoda	2018		
Bujara	3193		
Wawonga	1227		
Europeans	30	... 6470	
TOTAL			58,078

9: Kearney P-5 (1963) 1966 0023 Orokaiva 0023

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Notu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepa	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pareko
Ex-service-men settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isavene, Sangara and Girua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

162
125
423
133
177

TABLE 16

POPULATION BY AGE, SEX, MARITAL STATUS AND CLAN

(a) Comparison Between Inonda and Sivepa, 1951 and 1966

	Inonda		Sivepa				
	1966	1951	1966				1951
			Sorovi	Seho	Jegase	Total	
Male Adults (Total)	10	5	6	8	14	28	15
Widowers	2		1	-	2	3	
Married, residing with wife	7		5	7	8	20	
Single	1		-	1	4	5	
Female Adults	10	8	5	11	18	34	25
Widows	2		-	1	3	4	
Married, residing with husband	7		5	7	8	20	
Single or living without husband	1		-	3	7	10	
Children	22	35	15	27	33	75	59
TOTAL	42	48	26	46		137	99

(b) Sivepa male adults, by clans and age groups

Age Groups	Sorovi	Seho	Jegase	Total
16 - 25	-	1	3	4
26 - 35	2	-	2	4

TABLE 16
(Continued)

Age Groups (Continued)	Sorovi	Seho	Jegase	Total
36 - 45	2	2	4	8
46 - 55	1	5	1	7
Over 55	1	-	4	5
TOTAL	6	8	14	28

Note: For the purpose of this table, I have included entire households with the clan of the household heads. The breakdown of female population into clans must be understood as meaning: "Attached to a household of Sorovi, Seho or Jegase clan.

Appendix 1

Sivepa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivepa							
Village	114	3	2	3	20*	98	-14.0%
Sample	63	2	1	3	17	50	-20.6%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivepa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10$
Sample	14	4.5	1-7	2.4	0.8-3.8	4$

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivepa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
	Period##								
Inonda	1	1	nil	2	3	nil	nil	1	1###
Sivepa	3	1	1	3	2	1	1	nil	3$

* Eleven (55 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

$ However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

This man served 27 years as a mission teacher and has a total 'work value' of 62.

$ Both served as village officials (either village constable or local government councillor) for many years.

1284 811 592 166 164 163

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepo is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The figure for the time taken up by sickness (including caring for
[164] the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening
[197] was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepo people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

Chapter 6

Activity patterns: Sivepe

125

Introduction

[126]

The Sivepe survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

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[164]

[734]

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(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

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[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0J23 Orokaiva 0J23

Table 6:1

Sivepa: nights absent from the village by cause

		Garden work	Social obligations	Sickness	At Sangara*	External agencies	Other	Total nights absent	Total nights present
Period I									
	Nights	14	43	33	32	19	4	145	2,685
	Per cent	10	30	23	22	13	3	101	
Period II									
	Nights	38	13	-	-	36	2	89	1,169
	Per cent	43	15	-	-	40	2	100	
Period III									
	Nights	67	17	2	128	4	1	219	1,456
	Per cent	31	8	1	58	2	-	100	
Total									
	Nights	119	73	35	160	59	7	453	5,310
	Per cent	26	16	8	36	13	1	100	
Percentage of all nights present and absent		2	1	1	3	1	-	8	91

* On extended visits to or in the employment of settlers.

mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

[1] See pp.44-5. 4

[TEXT CONTINUED ON PAGE 77]

164 man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

The adult residents of Sivepe are active, on average, 40.6 hours per man-week, although, as Fig.6:2 demonstrates, there is a substantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

512 [75] [164]

Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433

Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

The organisation of work by households

512 461

Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887]

At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

Chapter 7

Activity patterns: Inonda

Introduction

Records were kept of the daily activities of the 19 permanent adult residents of Inonda and of 2 young people (one aged 15 and the other 16) who spent periods of a few weeks in the village helping kinsmen. These 21 people were regarded as residents for a total of 3,230 man-days. Temporary absences of more than 24 hours duration amounted to 560 man-days and so the number of man-days considered below amounts to 2,670. Table 7:1 shows the number of man-days absent in each recording period and in total.

The number of effective working days in the village is further reduced by sickness. When suffering from major illnesses such as malaria and influenza, people generally stay in bed at home or at the aid post. Comparatively minor ailments such as skin infections, tropical ulcers and cuts are usually dealt with by brief visits to the aid post, mostly early in the morning before work. Such visits occupied almost 600 man-hours over the survey.

Table 7:2 shows the incidence of sickness when people were inactive in the village. Periods of sickness spent at the aid post or hospital are included under 'Absences' in Table 7:1.

Figure 7:1 illustrates the weekly incidence of man-days occupied by sickness while in the village and by absence. There are wide fluctuations in the incidence of both, but particularly the latter, which ranges from zero to 46 man-days. The peaks of absences occur mainly with feasts in distant villages and when several villagers are sick at the same time and stay at the aid post or with relatives. Sickness tends to be most common during the wet season (periods I and III).

During the 2,670 man-days resident in the village, the activities carried out by the sample occupied 16,620 hours or 6.2 hours per person per day.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0723 Orokaiva 0723

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Table 6:2

Sivepe: nights absent from the village by cause and according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Total nights present	2,629	2,681	826	1,334	882	2,268	3,157	2,153
Nights absent (per cent)	10.3	6.8	11.5	1.8	10.4	10.6	5.7	12.6
Absences - by cause (as a percentage of total absences)								
Garden work	28.0	23.8	2.2	33.3	13.0	40.2	41.7	16.2
Social obligations	15.9	17.1	27.4	45.8	22.8	6.6	21.7	12.9
Sickness	5.5	11.0	-	4.2	-	14.1	1.1	12.1
At Sangara	31.7	41.4	69.5	-	12.0	34.9	6.1	55.1
External agencies	16.6	6.6	-	-	46.8	4.1	27.2	2.9
Other	2.2	-	1.0	16.7	5.4	-	2.2	0.7
Total	99.9	99.9	100.1	100.0	100.0	99.9	100.0	99.9

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Table 7:1

Inconda: days absent from village, by cause

		Garden work	Fishing	Sick and care of sick	External agencies	Visits	Other social	Other	Total days absent	Total days present
Period I										
	Days	20	26	13	1	139	52	9	260	1,252
	Per cent	8	10	5	-	54	20	3	100	
Period II										
	Days	-	-	38	43	60	4	-	145	593
	Per cent	-	-	26	30	41	3	-	100	
Period III										
	Days	-	16	52	40	29	14	4	155	825
	Per cent	-	10	34	26	19	8	3	100	
Total										
	Days	20	42	103	84	228	70	13	560	2,670
	Per cent	4	8	18	15	41	12	2	100	
Percentage of all days present and absent		1	1	3	3	7	2	-	17	83

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0723 Orobaiya 0723

164

Table 7:2

Inonda: man-days occupied by sickness while in village

	Personal sickness	Care of sick	Total
Period I	61.5	2	63.5
Period II	22	6.5	28.5
Period III	43.2	3.5	46.7
Total	126.7	12	138.7

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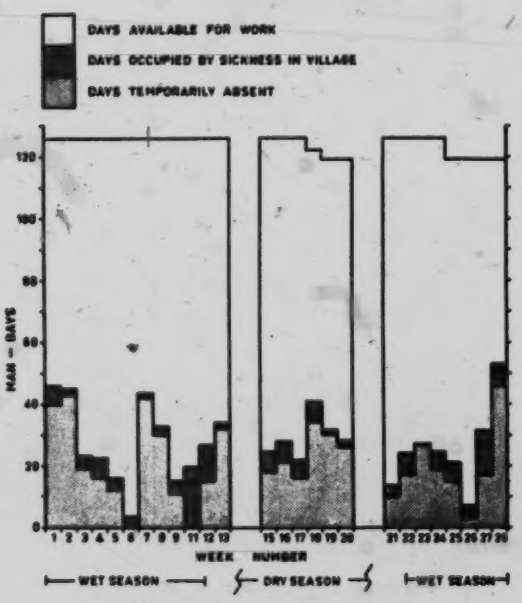
INONDA FIGURE 7:1

POTENTIAL WORKING DAYS AND DAYS OCCUPIED BY ABSENCE AND SICKNESS



entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

592 exchange network and they must use cash and storebought goods to
512 compensate for this.

[461] Few households differ greatly from the average in the amount of time they devote to household tasks. The widower, like most men, seldom cooked, whereas in household 18 the widow's son was rarely
[462] present and the mean weekly time spent in household tasks is strongly influenced by the time spent in cooking by the widow. Household 16 appears to spend less than the average time since it contains two men as well as the wife's mother, who does not cook as often as her daughter. The small amount of time spent by household 22 is probably due to the fact that the members had comparatively few clothes and so little time was spent in washing.

●164 As mentioned, much of the time shown as spent in sickness involves visits to the aid post and particularly to the fortnightly infant welfare clinic. Households containing small children, then, appear to spend most time in sickness. When days, rather than hours of sickness (including periods spent outside the village at hospital or the aid post), are taken into account, it is the households containing people over 45 that are most often sick. Household 24 spends on average 1.3 days per man-week in sickness. In addition to regular fevers, the household head suffered an anal prolapse in August and he and his wife spent the last 19 days of period II at Saiho hospital. Households 18 and 19 have the next highest sickness rates. Household 16 also has a comparatively high rate, largely because of the presence of the wife's aged mother but also because the whole household was sick with influenza during most of the last two weeks of the survey. All of the other households spent less than half a day per week in sickness.

592 There is not much difference between households in the amount of
512 time spent on social obligations. The widow and the wife of the head of household 21 spend rather more time than others in visiting, while the entrepreneur's household, (23), and the widower do little, and the latter was also unable to attend two feasts on account of sickness.

592 In addition to differences in activity patterns between the in-
512 dividual households, certain distinctions appear between cash
461 cropping and non-cash cropping households as groups. As is to be expected, cash cropping households spend more time in planting and tending commercial trees. Non-cash cropping households spend only 0.2 hours per man-week in cash cropping, assisting others and working on the copra project, but even cash croppers spend an average of only 1.5 hours per week on their trees. The two categories devote a similar amount of time to paid work and entrepreneurial activities - primarily because the Jego'undi man's period of work on the settlement block was intensive enough to outweigh the effect of the older non-cash croppers, who did no paid work. On average, people in non-cash cropping households spend 3.5 hours more per

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is [757] without taking the separately-recorded days of sickness into account. In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as <u>irongo</u> as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

<u>Inonda: days spent in sickness per man-month</u>

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	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 <u>The division of labour: the influence of sex</u>

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

[TEXT CONTINUED ON PAGE 148]

Appendix 1

Sivopa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivopa							
Village	114	3	2	3	30*	98	-14.0%
Sample	43	2	1	3	17	30	-20.9%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivopa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10#
Sample	14	4.3	1-7	2.4	0.8-3.8	4#

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivopa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Period##								
	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
Inonda	1	1	nil	2	3	nil	nil	1	1###
Sivopa	3	1	1	3	2	1	nil	1#	2#

* Eleven (35 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

This man served 27 years as a mission teacher and has a total 'work value' of 62.

Both served as village officials (either village constable or local government councillor) for many years.

153 164 166 842 811 448

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available [464] to a limited extent at a rate of £150 per year in town areas and [465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

411 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an [654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De- [494] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
460 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

[463] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept
[511] indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

keep warm. As a consequence they slept much of the day following.

Non-traditional experience: Table 14 below shows that there is a correlation between non-traditional experience (in terms of years of paid work and education), and the planting of cash crops. Table 15 shows that there is likewise a correlation between years spent outside the village and the planting of cash crops. Absence from the village is generally but not invariably associated with work or schooling. The data presented in the tables suggest that an increase in non-traditional experience is associated with increased interest in cash cropping.

Table 14

Comparison of non-traditional experience (in terms of paid work and schooling) with planting of cash crops

Total years in paid work or school	Number of Coffee or Cocoa Trees	Code No. of Household Head
45	see note (a)	8
17	335	1
16	288	4
11	150	7
10	0	6
8	178	3
4	0	5
0	0	2

(a) This man is a stranger in the village, but he is currently planting extensive cocoa gardens in his village of origin.

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst suffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data:
657 people argued that the Europeans would not necessarily know what would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between
[823] the camps and the home villages. At Cape Killerton and Oro Bay, the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also [753] stated in Keesing's report. My informants also ascribed sickness of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the [164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much [753] more" frequent than in any camp. It is significant, however,

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Margaret's Hospital, Kroro (Table 11).[A] The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, gastro-enteritis, influenza, scabies and other skin diseases are also [146] extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including one in Sivepe during the time of my stay. People are extremely anxious [155] about disease, even mild attacks of influenza or of malarial fever. The cause was always thought to be sorcery. [154]

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation
731 camps, except for infections due to bad water supply at Cape Killerton camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned
731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

A [See Cat. 116, p. 216--Analyst]

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
B21 this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
931 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

TABLE 11

164 HOSPITAL ADMISSIONS IN ST. MARGARET'S (ANGLICAN) HOSPITAL AT ERORO; NORTHERN DISTRICT, OVER 1966

Tropical Ulcer	21
Infected Wounds	949
Yaws	4
Injuries	129
Malaria	427
Asthma	24
Bronchitis	437
Influenzas	3
Dental Caries	10
Intestinal Infections	73
Eyes	26
Ears	111
Filiariasis	40
Pyrexia Unknown Origin	759
TOTAL	2,941

241 242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some
[133] 1,000 cocoa trees were also planted in the pre-war period, although
only the copra and coffee were worked during this time. All com-
[177] mercial agriculture ceased with the Japanese invasion in the second
world war and was again interrupted by the eruption of Mt Lamington
[731] in 1951. The principle of compulsion was withdrawn in the same year
and community enterprise largely ceased in the mid 1950s with an
[466] increasing trend towards individual plantings. The whole scheme
was characterised not only by low returns to labour, delays in pay-
ment,[2] frequent disputed claims to plantings and serious problems
in work organisation, but also by a definite feeling of resentment
on the part of the indigenous participants.

(c) War and natural disaster

177 The Orokaiva view of the government was no doubt influenced by
[131] the second world war, which led to the Japanese occupation of the
Northern District from July 1942 to January 1943, and by the erup-
tion of Mt Lamington in January 1951, causing the death of over
4,000 people and the destruction of the district headquarters and
staff at Higaturu.

657 The impact of the Japanese invasion and subsequent Allied re-
advance has never been assessed but must be considered profound.
All Australian administration ceased and, when resumed, was vested
in the Australian New Guinea Administrative Unit (ANGAU), a military
[466] authority. Several thousand men co-opted as carriers by both
Australians and Japanese worked under very arduous conditions.[3]
Since the Orokaiva lay athwart the main Buna-Kokoda route which was
the scene of fierce fighting, many villagers retreated into the
surrounding hills where they were obliged to subsist on very
[687] limited resources because of the absence of much of the potential
labour force.[4] Others sided with the Japanese or profited by the
[541] power vacuum to attack or betray Allied troops and civilians or to
assert their authority over other Orokaiva. On resumption of
Australian rule, twenty-two men were sentenced for such deeds by a
military tribunal and publicly hanged at Sangara and Higaturu.[5]

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1 An estimated 111,000 trees at a spacing of 10 by 10 feet.

2 As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

3 For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[165] 4 A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

5 A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

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A [See Cat. 116, p. 216--Analyst]

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepe has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepe of two additional Jegase families and [166] six Sorovi households. An analysis of Table 16[A] will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepe. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepe population, we find only six men of that age group and only three of these were children in Sivepe in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most striking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepe today as there were in 1951. [158] It seems likely that this increase should in part at least be due to [165] the improved health services: the monthly clinics, with the possibility 167 of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepe is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. [464] Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timuma) sample were employed outside Sivepe in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepe and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepe," as these men had never lived in Sivepe at any time but had [619] been residents of Garumbi before they became labour migrants. There [177] were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

CHAPTER XI: Epilogue--The Case of Hoborita

Section 1: Comparison Between Resettlement of Sivepa and Hoborita

731 123 My subject of study obliged me, both in Sivepa and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepa, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pejetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hoborita. For most Hoborita people, the time of the eruption marked the death of some, or many, of their closest relatives.

731 (165) In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[2] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andamba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. (621) It was the people who chose the site for the village; the Bishop hoped that later on, it could become a centre for cocoa production as climate (361) and soil suits this crop very well. At that time, neither the people nor the government seemed aware that the land occupied by the Sangara (425) was no longer in law their property.

425 657 The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

dance in Saesabata. But they enjoy very much better conditions than are usual for men who marry unorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timunu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcrapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely 621 more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are [614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The 592 generally monogamous family units are under the "immediate 621 authority of the father," while the affairs of the local living 622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, 422 usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in [154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually [562] hostile and resistant to whites. Women were often seen ac[782] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that [628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were [728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived 361 in permanent security." "Hiving off" occurred sometimes 241 as the result of a "quarrel and the fear of retaliatory magic," [578] but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession 361 and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend 261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow 731 zone, and people may have to scatter out to live on wild 165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifi176 cation, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly [999] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village 361 type also occurred, particularly as a result of Mission influ571 ence. Over against this greater dispersal, the people have

why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

THE EVENT AND ITS SETTING

On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor 1958:7).[6] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1).[7] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homogenous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same
583 applies to most instances I know of uxorilocal marriage. Here it was usually the wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
621
431

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, "because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme imbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the imbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and
[428] Rimboldi, provides an impressive list of exceptions to the supposed rule of
patrilineal inheritance and points, in addition, to the feebleness of links between
the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951
Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a
good number of one-clan villages, with populations of around fifty, but the
majority of the people were concentrated in larger settlements in which at least
two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call
'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan.
There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE X/1

VILLAGE POPULATIONS AND CLAN ORGANISATION

Number of villages investigated: 15

Name	*Population*					
(a) One-Clan Villages:						
Ajoro	50	Tandai'undi				
Inonda	42	Andiriha				
Irihambo	30	Oripa				
Sombou	70	Pangaripa				
Kakita	24	Hatopa				
(b) Two-Clan Villages:						
Binduta	100	Jegase		Usohu		
Garombi	132	Sorovi		Betu		
Hamburata	91	Ehirari		Ohuru		
Kongohambo	96	Pugege		Ameti		
Sivepe	137	Jegase		Seho		
Torogota	65	Jeipa		Jaumbi		
(c) Four-Clan Villages		ve/ih	ih/av	av/so	so/ve[1]	
Hohorita	348	Oripa		Besupa	Sehopa	Horeppa
Sasembata	162	Garoha		Pekuma	Ato	Takone[2]
Soroputa	200	Seraopa		Jaja	Java	Timumu
(d) Multi-Clan Villages						
Kiorota	429				12 clans[3]	

Notes

[1] ve/ih etc. are made up of abridgements of the Orokaiva terms *veari, ihane, avunu, sose.* for which see Chapter X, 5.

[2] No marriages between Seraopa and Jaja are permissible today, but both clans marry preferentially into the Hamburata clans.

[3] This village was settled in 1958 by refugees from the Mount Lamington eruption who previously occupied a number of smaller villages, according to the following pattern:

Homumuta	1 Haripa	2 Penonupa	
Isivita	3 Jegase	4 Berekipa	
Bosisepa	3 Jegase	4 Berekipa	11 Seraopa
Tambore	5 Oetopa	6 Ahungata	
Taremuturu	5 Oetopa	7 Pusaripa	
Pinda	8 Isivupa	9 Juvaripa	
Kandata	10 Jepuripa		
?	12 Omborapa		

583 528 616 Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more [179] than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised [361] the tendency to dual organisation.

361 178 614 583 First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

614 621 166 616 In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

621 614 616 I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or [582] village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

628 There were ordinarily no persons who could command the
701 allegiance of the tribe as a whole, nor was there any status with
authority to effect the settlement of disputes between different
166 subgroups or their individual members. Sometimes persistent
intratribal conflicts led to short-term migration or to a splinter-
group's secession from the tribe. However, these disturbances
were very minor in comparison with the 'flight, dispersal and
migration' in general resulting from incessant intertribal[1] feuds
(see p.35).

701 Kinship and local affiliation together were the basic principles
by which subgroups of the raiding party seem to have been drawn up
during attack and on which leaders[2] within the party based their
rights to command specific combatants.

721 Retaliation was as important a motive for isoro as was indivi-
728 dual and group prestige. It was 'rare if not impossible' for
tribes to settle hostilities amicably by compensation, exchange
of hostages or other means (Williams 1930:166, 170 ff., 311 ff.).

721 Conquering groups operating from within their established
territorial frontiers seem seldom to have set out with the express
aim of acquiring new land for settlement or even to have used the
vacated land when they forced their enemies to withdraw.[3] Never-
theless, the Aiga people (mostly the Timbariundi, i.e., wanderers),
for instance, are known to have migrated to their present territory
by expelling another tribe and settling on their land.

The high value of the land on the volcanic slopes occupied by
the people called 'Periho' and 'Wasida' (by Plant and Williams,

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1 'Intertribal', 'interclan', etc., are terms which we apply to relationships between any - i.e., not necessarily all - repre-sentatives of the units in question.

2 In the course of a raid, some of these leaders would assume the role of isoro embo jigari, a man who should rally the slowest of his company in attack and protect the stragglers during withdrawal; the other class of leader was known as isoro kiti jigari, that is, a warrior who ordinarily directs raiding groups from in front and takes the initiative in tactical decisions. Kiti jigari is some-times a term for leaders in ordinary village activities (kiti, the first, foremost; jigari, one who directs and controls an enterprise; cf. pp.51-3. See also Williams (W.23) who was told that in pre-contact times a renowned member of Sarahu clan would lead from behind in attacks by men of the Jegasi-Sarahu villages (of the 'Wasida' tribe).

3 As the Sangara did to the Divinikovari, for instance (Williams O.12).

A,[See Category 721, p.35--Analyst]

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

24 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepo or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepo people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to attack government parties,[3] peace was secure within 4 years. [121] Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes under the novel conditions brought about by the arrival of the [166] Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

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[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dahsyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

166 In about 50 years preceding the establishment of their present
361 village the groups now represented in Sivepa had between them
177 been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Soku River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in [GZ1] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbahata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepa.[1]

(1) Migration 1900-30: The Babahupa moved from Simbahata to Korigombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andahahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with those 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Mahihita nearby.

[GS7] In 1950 the Administration instructed the Babahupa of Korinasusu and Mahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2.

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepa, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

166 the Jegase people had no land on the Asula-Kendata road nearby,
36 where they decided to build, they acquired rights to house-sites
613 on the road on the land of the Be'ohushije[1] in return for rights
granted to some members of that clan to build on Jegase land 3
[428] miles away at Asula No.1. The Jegase people had begun to move to
[731] the new village, now Binduta, when Mt Lamington erupted. Although
they were outside the limits of the area of destruction the people
were evacuated for safety.

The Bebehupa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepo had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sobu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

[682] The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timunu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohushije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepo (d3J). This man's son is the third Berekipa household head (e2J).

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1 The Be'ohushije formerly lived in the nearby villages of Saunhambo and Heberata and their land adjoins Sivepo village.

2 See Genealogy, p.52. A/A

3 For relationship between namesakes (tato) see Williams 1930:96.

4 See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A,[See Category 601, p.82--Analysis]

166 361 613 Neither the man nor his son has every cultivated his patrimonial land at Hamburata although they hunt and fish there. The man makes these periodic visits to affirm his rights as he claims that constant surveillance is necessary to forestall encroachment on his land. His father's brother controls the land in his absence.

By 1950 the members of the Berekipa households who numbered 12 had thus acquired only 5 parcels of land (totalling 9 acres) near Sivepa since the lineage returned from Hamburata 30 years before, and had to rely on other lineages for access to adequate land. [657] After the war the Berekipa were asked by the Administration to move from Pusahambo to a village called Pamba where Arehu lineage was living. They seem to have been largely dependent on the Arehu and on affines elsewhere for planting rights since then.

The Arehu people had founded Totogata next to Simbehata and remained there after the other Jegase people had moved on to Euru and Korogombata. Some members of Bebehupa lineage, in refusing to recognise Arehu as a genuine Jegase lineage, explain that it is an immigrant group descended from a Togahau man of Arehu clan[1] who was adopted as a child after a Jegase raid on the Togahau. The land the group now holds is centred on Simbehata and the Bebehupa, although they take little interest in it, allege that it was acquired when the Jegase man from Simbehata was killed at Divinikovari. The Arehu have retained and strengthened their rights over the years and to all effects have become absorbed into the local branch of the clan, extending their effective ties there by intermarrying with other lineages. When pressed, the only resident male (d4J) even answers questions about the position ascribed to him as one of the agnates in the local group by [578] stressing that he and his father married Jegase women, as if no more need be said. The grandson of the alleged original landholder has disputed the rights of the Arehu man to the parcel of land on which the old village Simbehata was situated.

[657] Several years after the ancestors of the Bebehupa left Simbehata the Arehu were told by a government officer to amalgamate with other Jegase people and with the members of Timunu and Seho clans from Euru and Asina. The village formed on Seho land was old Sivepa with its satellite, Pamba; most of the people stayed there until they fled the Mt Lamington eruption in January 1951.

The Pekuma and Hajejopa lineages of Timunu clan had both joined the Jegase and Seho people in founding old Sivepa. The fathers

[1] This clan today is represented in Sirembi village in Togahau Census Division and possibly in other villages there. In 1923 Williams (O.1) noted that they were also present in the villages of Pororí and Ohamba.

[TEXT CONTINUED ON PAGE 45]

of the 2 senior men of Sivepo had divided their allegiance between branches of the clan at Euru and Soroputa and had exercised rights to land near both places. Since the death of his father the Pekuma man (d1T) has lived first in Euru and then Sivepo with his mother's kin and later his wife's kin. He and his adopted son (e1T) hold 28 acres nearby but he has never cultivated the land his father used at Soroputa; he sometimes obtains the permission of his father's brother to collect the produce from trees his father planted (see p.24).A

About the time the older Majojopa man (d15T) established his household at Euru, he was involved in a dispute with his father's kin from Soroputa who wanted him to return or else relinquish his rights to the land his father had cultivated there before settling permanently at Euru. Like the Pekuma man he preferred to settle on the comparatively large landholdings (18 acres) near Sivepo and severed most connections with Soroputa.

... (ii) Changes following the 1951 eruption. Sivepo-Pamba and Binduta were a few miles outside the area destroyed by the major eruption. Referring to the population of these marginal areas Keesing (1951:3) says that 'after the first panic of scattering... local groupings were in the main able to reassemble in the regional camps with such official aid as was necessary'. Refugees from the west side of the mountain were collected from emergency encampments along the Kokoda road and taken to a regional camp first at Wairopa and then at Ilimo near the Kumusi River. The villages of the Jegase and Tamamu were included in the danger zone which was defined about 4 months after the first eruption. They were about 7 miles from the summit and the danger area extended for 8 to 12 miles around the active crater.

When the limits of the zone were determined about 3,000 people whose villages were not closed off or who could find kinsmen to live with in resettlement areas outside the zone left the refugee camps. Most of the 2,000 who remained for some time at Ilimo were from the villages such as Sivepo on the more fertile land higher up the west and north-west slopes. Members of our sample however left to live with clansmen or other kin at Awala No.2 on the main road. In the chain of fairly continuous settlements which grew along the road great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among leaders from different local and kin groups.

Most of these villages were still partially dependent on emergency rations issued to them while breaking in new gardens. Some of the Jegase people in Awala had their own small pockets of land nearby where they planted emergency crops and foraged; some made excursions during the day into the closed area to collect

A.[See Category 428, p.34--Analyst]

621 current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. [602] But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

621 Perhaps there is a similar contrast with former practice (see 606 Williams, ibid:106, 114, 128, 131). However, in 1924 in a third [578] area (the Ope or Aiga), the village, consisting as it might of intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

●166 Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

614 (ii) Formal features of the local patrilineal groups. In dis-
613 cussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timunu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepo. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepo people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kohoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

166 [342] Individual mobility is still high, as we have already noted. Mobility is facilitated by the fact that material for housing - *wange* timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

36 [621] The patrol of 1948 which found this area 'literally a mass of small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

36 178 62 [177] When people began to leave the evacuation camp there was a spontaneous trend, which was encouraged by officials, towards building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

62 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

[21] At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[754] [166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [06] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

[71] [24] [36] Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as Williams says, the Orokaiva move their garden sites frequently. Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Mahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one man's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are
dissolved as gardens near the house revert to fallow (ibid:98)
Brown and Brookfield 1959:68). As they extended their cultivation
to other areas, 37 per cent of a sample of 193 men had moved from
one man's house to another over a period of 16 months (Brookfield
and Brown 1963:98) and the men's houses themselves last no longer
than 5 years (ibid:12).

241 In Sivepa on the other hand, gardens tend to be scattered and
isolated. Father and son often have adjacent plots in one garden
area but the son usually has at least 1 other garden elsewhere.
A young married man often has 1 garden on the land of his wife's
father, whom he will periodically assist in his garden. Older
men in general adopt the technique of progressively planting and
clearing a single large area while younger and more active men,
usually with more obligations to affines, tend to cultivate
several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even
when all members of the village plant simultaneously for a special
feast, the gardens are not adjacent. A man usually takes advan-
tage of the choice of exercising planting rights on the land of a
wide range of kinsmen (not necessarily his agnates), both those
within the village and to a lesser extent kinsmen from other
villages. Several had current gardens on their mother's brother's
land, some on the nearby land of their wife's brother, sister's
husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their
land with them, but this is not a common practice at Sivepa. In
the few cases where several kinsmen have made adjacent gardens
the gardeners are mostly cognatic kin from different clans or
villages and each will probably make his next garden with differ-
ent kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
M result in repeated changes of residence as it does among the
425

[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Table 5

423 613 614 Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)	
1. Planter is a member of lineage holding proprietary rights	15	9.17	
2. Member of a different lineage but same clan branch	5	2.57	
On land of planter or co-resident agnate			11.74
3. Member of a different clan within the same village	10	4.49	
4. Member of another branch of the same clan	1	0.10	
5. Member of a different clan and village	3	1.51	
On land of others			6.10
	34		17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.

● 166 171 425 Chimbu or to influence the choice of a garden site; a Sivepo man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardised if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with [614] roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups.

A. [See Category 248, pp. 89-96; Category 248, pp. 87-93; Category 423, pp. 96-98--Analyst]

464 166

b. Employment

Ten people who are siblings or sons of the householders in the 2 subclans are absent from the village. Eight are employed in other districts of Papua as clerks, policemen or technicians. Two men, a single man and a widower, have left to work elsewhere in the district.

Five of the 10 absentees are the youngest sons in their families but their absence does not seem to be directly attributable to a heavy demand on their families' land resources. These who have left the district are people who had the advantage of local education facilities which were not available formerly and they hold semi-skilled positions which offer more prospects of permanent employment than most of the present householders had.

[671] Only 5 adults in the sample, 2 men and 3 women, have had any formal education. One of the men attended school for 4 years, the other for only 1 year. Five of the 7 householders in the 45-65 age group were employed outside the district on European plantations for 2-3 years before the war, 3 of them as rubber tappers. These men served a total of 7 years as carriers during the war. Apart from the years of service as a paid village official or local government councillor only 2 of them have taken work since the war - 6 months each as casual labourers on a plantation near Popondetta. The 2 other householders of this age have never had paid work. The men between 25 and 35 years have spent an average of 7 years in employment outside the village as against the older men's 3 years.

464 The frequency and duration of the younger men's terms in employment are set out in Table 9.

Table 9

Years spent in employment

Household No.	From date of first employment until birth of first child			Since birth of first child		
	Total years	Years in employment	No. of jobs	Total years	Years in employment	No. of jobs
1. (e2J)	5	3.5	3	4	Nil	Nil
2. (d10J)	5	3	3	11	2.5	3*
3. (d11J)	13	9	4	No children**		
4. (e3T)	10	8	5	6	1	2
5. (e1T)	4	3	2	14	6	7

*Householder took further employment soon after our survey.
**Householder had child by first wife but lives elsewhere; he is still employed.

464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
[466] District. The young men on the other hand readily leave village life temporarily to take casual work on European plantations in the district where there is now a greater demand for labour. They may leave their wives and children to be provided for in the meantime by the other side of the family or may have them accompany them to the area where they are employed. These absences interrupt the routine of subsistence activities for the family but the possibility of this course of action is left open by local environmental conditions and the virtual independence of the nuclear family as a gardening unit. There is little seasonal variability and this small group is free to resume any phase of garden activities when and where it chooses.

431 Among the 5 able-bodied and active men of the senior group there seems to be no consistent demand for cash which cannot be met by gifts from their kin or affines and they have sought temporary employment only as a means of meeting some immediate financial requirements. With the exception of the salaried local government councillor the older men received 78 per cent of their total year's income of $88 as gifts.

434 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods available locally as well as on kinship obligations. However, not all income is spent in this way and, as Belshaw found in this area (1951:11) there is both some capital available for investment and a willingness to contribute money to funds for this purpose if they can be organized.

The men who have spent most years in paid employment also supplement their income by producing rubber and coffee, sometimes with the assistance of their fathers. However, no one has invested heavily in these crops and they provided only $32 or 15.8 per cent of the sample's income for the year.

245 c. Commercial agriculture

(i) Coffee. Four householders in the sample have individual coffee plots with a total of 503[1] trees on 1 acre of land. One of these plots is a section of a former village or 'company' coffee plot. About the time of the opening of the Higaturu Council in 1956 members of Jegase, Timumu and other groups in Sivepa and Binduta villages participated in the planting of 2 'company'

[1] The agricultural census of 1964 recorded 1,100 trees held by 5 growers in Sivepa as a whole (162 were not yet 6 years old and 491 of the trees had been planted more than 10 years before).

Chapter 5

The land and economic development

a. Shifting cultivation and residential stability

Under the present system of horticulture the amount of land surplus to current subsistence needs is small and imposes limits to expansion of commercial agriculture.

Williams (1928:154) regards the system of subsistence cultivation as wasteful because it requires such a large area per person. However, the practice of shifting gardens frequently and for short periods on scattered plots does give maximum yields and maintains soil fertility. Brookfield and Brown (1963:166) point out that no successful alternative to land rotation has yet been proven for subsistence agriculture in the tropics. Population pressure and soil fertility are not sufficiently serious problems on the slopes of Mt Lamington to warrant the measures which Fisk (1962) recommends in other circumstances.

Keesing (see Chapter 3, Section e) argued that the rotation of land adversely affected social stability. But the settlement pattern which developed after the emergency shows that there is no necessary connection between dispersed settlement and either the local population density or the method of bush fallow rotation. Some very large villages formed after the eruption (e.g., Soroputa and Kiorota) retained large groups of immigrants who owned no gardening lands near at hand. The present high rate of mobility between other villages, most of which are much larger than before, is not closely correlated with the shifting of garden sites. Among the Chimbu, by contrast, land use is more intensive, but frequent shifts of residence between scattered hamlets are related mainly to gardening needs.

With the introduction of cash cropping the Chimbu pattern of settlement is becoming more permanent (Brookfield and Brown 1963:98). There is little significant evidence either to support or oppose our belief that the planting of individual coffee plots since the mid-1950s has not been associated with a drop in

178 individual mobility among the mountain Orokaiva. We especially
361 doubt the generalisation that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups hold proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Morton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing [24] since 1956. Our evidence, however, shows that the significant [178] change has been rather the introduction of a new method of cash [177] cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 Morton expresses a view widely held among government officers[3]
614 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

LCC
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491
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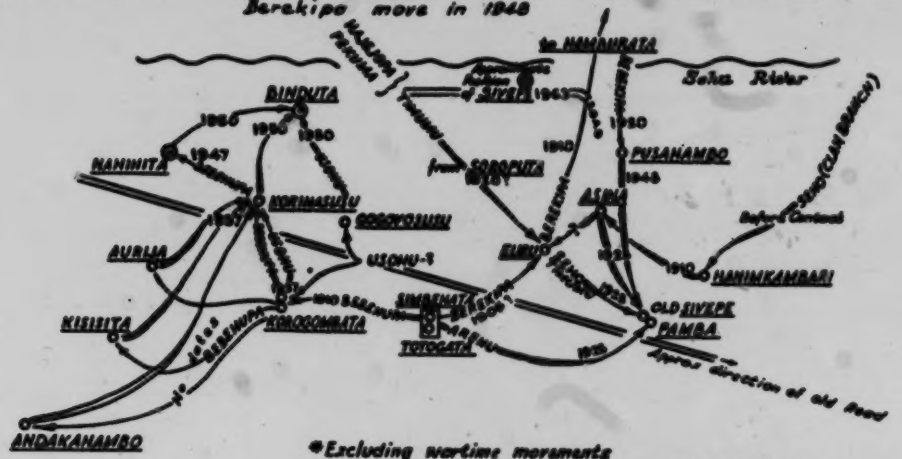
7: Rimoldi et al. E,I-5 (1962-1965) 1966 OJ23 Orokaiva OJ23 Mountain Orokaiva Siwepa

SCHEMA OF MAJOR LOCAL MIGRATIONS 1900-1950*

● Extant Village ○ Village now abandoned

[S] Original Centre of Dispersal of Jegase

Double lines on arrow indicating a movement means that village was thereby abandoned
Movements with same date and destination were directed by administration, as was Barakipa move in 1948



*Excluding wartime movements

Relative positions of villages are distorted for the sake of clarity. (See Map 2.) Most prewar dates have a margin of error of at least 5 years: Figures are given only to indicate sequences. Dates most in doubt are marked ?

with some of their co-residents; nevertheless, common residence implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional entities.[1] Marriages between members of the different clan branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

(i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot necessarily trace, common descent from a usually eponymous ancestor. Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

(ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is characterised by 'big men' (asbo dosbo) and an ascendency of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

(iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be changed at any time. The composition of individual households within the village likewise varies, although the basis is generally the nuclear family. The distribution of clan branches through a number of villages is closely related to access to the group's land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

(iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

[4] Belshaw (1951:248) makes a similar allusion.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

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431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to
434 hold licences to trade in 1959, several Orokaiva men have estab-
[438] lished trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[2] Only two of the absent Sivape men had not sent presents home for
[762] several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.[A] [4] See Appendix 2.[B]

A, [See Category 163, p. 307--Analyst] B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

Like Sivepe, both sites of Inonda were laid out as line villages. Here the tendency for grouping of kin is more marked but still not rigid (see Map 6). The houses, with a mean size of 282 sq ft, are built largely of local materials, but incorporate some exotic items including nails, and, in certain cases, corrugated iron roofing from nearby wartime dumps. In addition to the residences, there is a rest-house, a copra-drier, a small trade store and a chapel. Brief weekly services are held by a villager who was once a mission teacher and who also owns the store.

In January 1964, the resident population of the village was 35, with 16 adults, a drop of seven since the time of Crocombe and Hogbin's survey (1963:58). The nine households had an average of 3.9 individuals or 1.8 labour units. No births or deaths occurred during the survey but there were three arrivals and seven departures giving a total of 31 people, including 16 adults, in January 1965. In addition, several people from other villages stayed temporarily with kinsmen in Inonda. At first, there were two local clan branches in Inonda, the Andirihaha and the Jego'undi, the latter being represented by a single family.[1] When the village moved in 1964 the Jego'undi man, having virtually no rights to land near the new site, decided to move instead to the nearby village of Hosou, which is built on his land. He, his wife and four daughters were from this point (July 1964) excluded from the daily interviews, which explains the most prominent change, namely the loss of female children, in the age-sex structure diagram (Fig.4:2).[2] In contrast with Fig. 4:1 for Sivepe, Fig.4:2 shows neither males nor females in the 15 to 19 years age group; the largest concentration of adult males is in the 20 to 24 years group, where Sivepe has none. The proportion of long-term absentee adult males was 16.6 per cent in January 1964 (i.e. two out of twelve) and 25 per cent in 1965, the rise being due to the departure of the Jego'undi man. One absentee is normally resident in Port Moresby and seems unlikely to return except on retirement; the other, his brother, lives less than three miles from Inonda at Ijika near Hohota, which is his widowed mother's village, and he constantly asserts his intention to return to Inonda.[2]

The major agnatic links of the Andirihaha people are with Hohota, but extend to Kakandetta and Hanakiro, ten miles away, while

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[1] A third local clan branch, the Horemba'undi, is represented in Inonda by a single household, which is resident through affinal ties and it has no right to Inonda lands, although it is allowed to make food gardens there.

[2] i.e. two of the three 'absentees' continue to reside in subsistence villages, unlike the Sivepe absentees who are all in, or seeking, full-time wage employment elsewhere.

[TEXT CONTINUED ON PAGE 55]

A,[See Category 162, p. 55--Analyst] B,[See Category 162, p. 59--Analyst]

8: Waddell & Krinks B-4,5 (1964-1965) 1968 GJ23 Orokaiva GJ23

Chapter 6

Activity patterns: Sivepa

125

Introduction

The Sivepa survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

B: Waddell & Krinks B-4,5 (1964-1965) 1968 0723 Orokaiva 0723

Table 6:1

Sivepe: nights absent from the village by cause

		Garden work	Social obligations	Sickness	At Sangara*	External agencies	Other	Total nights absent	Total nights present
Period I									
	Nights	14	43	33	32	19	4	145	2,685
	Per cent	10	30	23	22	13	3	101	
Period II									
	Nights	38	13	-	-	36	2	89	1,169
	Per cent	43	15	-	-	40	2	100	
Period III									
	Nights	67	17	2	128	4	1	219	1,456
	Per cent	31	8	1	58	2	-	100	
Total									
	Nights	119	73	35	160	59	7	453	5,310
	Per cent	26	16	8	36	13	1	100	
Percentage of all nights present and absent		2	1	1	3	1	-	8	91

* On extended visits to or in the employment of settlers.

mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

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[1] See pp.44-5. 1

[TEXT CONTINUED ON PAGE 78]

A,[See Category 344, pp. 44-45--Analyst]

B: Waddell & Krinks B-4,5 (1964-1965) 1968 0223 Orokaiva 0223

Table 6:2

Sivepo: nights absent from the village by cause and according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Total nights present	2,629	2,681	826	1,334	882	2,268	3,157	2,153
Nights absent (per cent)	10.3	6.8	11.5	1.8	10.4	10.6	5.7	12.6
Absences - by cause (as a percentage of total absences)								
Garden work	28.0	23.8	2.2	33.3	13.0	40.2	41.7	16.2
Social obligations	15.9	17.1	27.4	45.8	22.8	6.6	21.7	12.9
Sickness	5.5	11.0	-	4.2	-	14.1	1.1	12.1
At Sangara	31.7	41.4	69.5	-	12.0	34.9	6.1	55.1
External agencies	16.6	6.6	-	-	46.8	4.1	27.2	2.9
Other	2.2	-	1.0	16.7	5.4	-	2.2	0.7
Total	99.9	99.9	100.1	100.0	100.0	99.9	100.0	99.9

226 476 branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

342 461 476 Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the housecowner alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

461 178 It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was [245] initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

166 Inumbo. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Urura mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Inumbo was absent for 86 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahoma village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

[461] [404] Inumbo's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

● 166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold <u>sipere</u> (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. [796] A closely related activity is church attendance, which occupies over an hour a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

512
[133]

then sweet potato and minor crops. After the Mt Lamington eruption, several rivers flooded and, with the exception of Mamoho's, all the Ikonda people's yam gardens were destroyed. The supply of yams has gradually been increased from those surviving in his garden, but he and his sons are still the only people with large holdings. Mamoho spends a considerable amount of time assisting others in subsistence activities; in particular, he cleared and maintained a sweet potato garden on behalf of the widow and also helped her in fencing, in erecting a yam storage house and in constructing her house on the new village site. He also spent 30 hours helping his son to make sago. His eldest son's wife and the widow often harvest in his gardens and cook for him. Among his other food-producing activities he spends 2.5 hours a week on hunting, using a spear and accompanied by his son's dog; he usually gives the produce to his son's wife.

[224]

Mamoho was never absent from the village for a whole day, but spent 19 days inactive through sickness. Largely because of this, he was unable to attend a number of feasts and spent less time than anyone else in this way. Like most of the men, he spends little time on council work; this and other activities related to external agencies and the monetary sector account for only 4 per cent of his time. In other words, his activities are now almost wholly subsistence-oriented, although he maintains an interest in and encourages others to plant cash crops.

Embogi. A widow aged about 51, Embogi was born in Urio village and retains close links with her kin there. Her first and second husbands, who were brothers, belonged to a subordinate branch of the main lineage in Ikonda. Her third husband, who had one other wife living, died in 1962. She has a son and a daughter from this last marriage, and has remained in Ikonda partly to maintain her youngest son's rights to land inherited from his father. She maintains a separate household with these two children but in August her eldest son and his wife (Marjorie) moved in with her prior to building their own house on the new village site. Embogi's second son (by her second marriage) normally lives with her but for most of the survey was staying with a classificatory father while attending the administration school at the settlement block. Her house was built mostly by this son and Mamoho, the eldest son being absent at the time at his wife's father's funeral feast in Hoherita.

[166]

Although Embogi's working week is considerably longer than Mamoho's, it is shorter than that of most others. However, 80 per cent of her time is devoted to productive

B: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

433 M9 [71]

attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

433 M8

Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

[SCS] [71]

[illegible]

30 178 166

Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites.

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector.

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine.

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work.

While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of few diseases or pests. In Sivepe, work groups in cash cropping are no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether <u>given the existing technology, socio-economic matrix and level of productivity</u> the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

561 the ones with the largest surplus of production above their immediate household needs. This pattern, in association with the particular roles of the oldest and youngest age groups, appears to support the widely held proposition of individuals building up 'credit' within the community to draw upon in their old age. The data might equally be interpreted as suggesting that most of the transactions are concerned with personal aggrandisement and only the middle age groups are capable of achieving this. Thus, in the exchange of labour services, there is a significant outflow from the 15 to 24 years age group and an inflow into the 55 years plus - that is, from a group where labour is the one abundant resource to another where it is scarce and needed to achieve subsistence - yet the 35 to 44 years group also registers a net inflow. Much of the labour received by the 55 years plus age group was connected with sago-making and this same group accounted for half the sago distributed. Since the individual concerned, within this age group, was unable to collect his own breadfruit and had no other way of reciprocating other gifts, offering one of his sago trees proved an effective way of settling his obligations and, at the same time, meeting his own dry season food requirements while expending little of his own labour.

[556] Each of the three other age groups plays an important role in the flow of specific resources. The 45 to 54 years group largely controls the movement of pigs, one of the main traditional indicators of wealth, but not of products associated with the monetary sector. These latter are divided differentially between the 35 to 44 and 25 to 34 years groups, the first being concerned primarily with cash cropping, from which its revenue is mostly derived and therefore its access to storebought goods, while the second relies heavily on remittances and parcels of goods from relatives in wage employment.

In effect the three middle age groups control the circulation of 'wealth', with that of the 25 to 34 years group being founded almost exclusively on non-traditional goods, that of the 45 to 54 years on traditional, and that of the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (garden produce and cash crops).

<u>The relationships between exchange and the socio-economic status of transacting partners</u>

177 Within the total economic system, of which the subsistence villagers comprise the basic stratum, a number of distinct socio-economic categories can be identified with each playing a distinctive role in the pattern of exchanges. On the one hand there are the institutions or organisations associated with the expatriate community or directly promoted by them - the Administration, the OCGS, the Anglican mission, the trade store, the market, etc. - with which transactions are of a formal nature and operate between the individual villager and others in their roles as members of an institution. On the other

178 ● 166

178 there are those indigenes who have moved temporarily or permanently away from the village economy - to take up blocks of land as ex-
166 servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly
[434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home
[465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees
[434] and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather
[438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

Appendix 1

Sivepa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivepa							
Village	114	3	2	3	20*	98	-14.0%
Sample	63	2	1	3	17	50	-20.6%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivepa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10#
Sample	14	4.5	1-7	2.4	0.8-3.8	4#

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivepa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Period##								
	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
Inonda	1	1	nil	2	3	nil	nil	1	1###
Sivepa	3	1	1	3	2	1	1	nil	2#

* Eleven (35 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

This man served 27 years as a mission teacher and has a total 'work value' of 62.

Both served as village officials (either village constable or local government councillor) for many years.

163 164 591 592 811 464

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Appendix 2

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Sivepe and Inonda: adult male absentees, by location and employment, December 1964

	Inonda*	Sivepe
Location		
Northern District	nil	5
Port Moresby	1	7
Other Papua-New Guinea	nil	2
Employment		
Plantation	nil	3
Urban	nil	2
Agriculture	nil	1
Cook	1	nil
Police/prisons	nil	2
Technician	nil	1
Clerk	nil	2
Unemployed	nil	1
At school	nil	2

* In addition to the absentee shown here, two families had left Inonda to live in nearby villages.

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatare, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Work patterns

Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5), the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A, [For Table 5, see Category 166, p. 43--Analysis]

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3 illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In 1952-3 occurred the major amalgamation of dwellings into Beporo [166] village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew rapidly. Table 4 shows the estimated distribution of population 161 162

[TEXT CONTINUED ON PAGE 42]

Table 4

Distribution of total Yega population by villages in 1960, 1962, and 1964

361 162 103 161

	Village name	1960 estimated	1962 November	1964 July
A.	Coastal			
	Surilai	60	52	61
	Niniyanda	44	9	5
	Kanaunje	15	17	11
	Basabuga	17	19	14
	Tarebosusu	7	10	Nil
	Banumo	14	8	10
	Gombe	19	15	19
	Siumbago	9	13	Nil
	Beporo	335	275	164
	Gona Mission	7	6	18
	Subtotal	527	424	302
B.	Inland			
	Gatara	6	6	6
	Konje	Nil	6	97
	Otobejare	Nil	8	13
	Imangada	Nil	3	8
	Mumburada	Nil	17	47
	Ononda (D.A.S.F.)*	Nil	5	1
	Ononda	Nil	41	66
	Binjapada	Nil	51	61
	Jamberoda	Nil	Nil	15
	Subtotal	6	137	314
	Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

161 162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

361 166 242 245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kansunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed [423] hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6).

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	M/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[423]

[425]

361 followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of
166 an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa
361 blocks. After establishing their homes in Ononda village most of
166 these villagers cleared rain forest in the Ononda area, thus
241 establishing their cultivation rights to nearby areas of land.
423 Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

178 The foregoing description shows that the Yega Scheme was a
245 major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

245 In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 [614] [613] A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognised rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [242] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 413 214 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

Historical background

160

The history of the Inonda people has been marked by frequent shifts of residence. They trace their 'origin' to an area known as Aramba which is located about seven miles to the south-west. In the early years of this century, probably about 1910 or earlier, the Aramba people were attacked and defeated by certain Sangara clans. The survivors, mostly members of the Andiriha clan, fled in various directions; some went to Kakendata, some to Jegarata, some to Hanakiro and others to Hohota. The group that finally settled in Inonda, however, fled to Wauta (near Doboduru No. 1) where they were given asylum by the Sauhaha clan, and where some of the refugees married Sauhaha women. Each of the scattered branches of the Andiriha clan may now be regarded as a separate sub-clan.(1)

The Tandai'undi clan, with whom the Andiriha had previously fought against the Managalas, were also driven out by Sangara and were living not far from Wauta. About two years after the conflict with Sangara the Tandai'undi people moved back inland and established Sambogo village on the banks of the Sambogo river.(2) They were soon joined by those members of the Andiriha clan who had been staying at Wauta. The Andiriha sub-clan acknowledged that the Tandai'undi held prior rights to the land by virtue of previous occupation.

At the time of their eviction from Aramba the Andiriha clan were living adjacent to another clan known as Jego'undi. The Jego'undi also fled, and though informants are not agreed as to where they went at first, all confirm that one Jego'undi man joined the Andiriha people at Sambogo.

There was some dispute between the people of the Sambogo village and those at Urio (the next village downstream) as to the boundary between their respective lands. The dispute was taken by the leader of the Andiriha sub-clan at Sambogo to

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(1) The terms 'clan' and 'sub-clan' are defined on pages 16-17.

(2) The Andiriha are shown as living at Sambogo in 1915 - Chinnery and Beaver, 1915, Appendix 3.

the Resident Magistrate, Mr. Oelrichs[1] who decided in favour of the Sambogo villagers. He is said to have advised the Tandai'undi and Andiriha people to re-establish themselves in separate villages, though the reasons for this are no longer remembered. The Tandai'undi clan moved westwards and set up the village of Ajoro. Some of the Andiriha established the village of Jawahe on its first site and the balance of the Andiriha and the Jego'undi man and his family set up the village of Inonda on its first site. We will call this Inonda I. Some years later, when a flood destroyed the village at Jawahe, the inhabitants moved the village to its second site adjacent to Inonda I. Later again, due to a drop in population, the Jawahe people were absorbed into Inonda I.

Inonda and Jawahe were established on the land which had previously been disputed between the Sambogo and Urio villages. Although the Tandai'undi had rights superior to those of Andiriha in this land, they transferred some at least of their rights to the Andiriha in return for traditional valuables, pigs and two women. Both of the women concerned were members of the Andiriha clan. The Jego'undi man did not contribute much to the exchange and his descendants recognise their rights as being subordinate to those of the Andiriha.[2] The whole of the area acquired will be referred to henceforth as the Inonda lands.

At the time of the Japanese occupation in 1942 the Inonda people left the open plain and withdrew up the Sambogo river to a site near that of the former Sambogo village. They remained there for ten months and returned to Inonda about May 1943.

After the Mt. Lamington eruption in 1951 the Inonda

(1) Mr Oelrichs was Resident Magistrate of the area from 1910 to 1913. He had earlier served there as an Assistant Resident Magistrate from 1902 to early 1903.

(2) Some of the Andiriha people in fact claim that the Jego'undi family was absorbed by Andiriha and that "we were all one sub-clan". Later, however, a dispute arose and a visiting patrol officer advised them to keep the sub-clans distinct.

people were shifted about two miles eastward to a site adjacent to the wartime Inonda airstrip. People of several other villages (including Ajoro, the home of the Tandai'undi) were also resettled in the same area for safety. We will refer to this as Inonda II. During 1952, when the danger of further eruption was considered to be over, they shifted their village to Inonda III which was approximately a mile closer to their planting lands. In 1956 the people who had been temporarily resettled for safety at Inonda moved back to their respective villages. The local people then moved to their present site, Inonda IV, which is midway between their food gardens and their coffee plots.

Demographic and social structure

At the time of our survey, of a total population of 45 living in 8 households, 23 were members of the Andiriha sub-clan and 5 members of the Jego'undi sub-clan. The remaining 17 belonged to other clans. Of these 17, 8 were wives of members of the Inonda sub-clans and another 7 were relatives of these wives. The remaining 2 were the children of the sister of an Andiriha man who had come with their mother on a visit.(1) The number of persons in Inonda households ranged from 3 to 10 with an average of 5.6. There were 4 nuclear, 1 polygamous and 3 extended families.

The term 'clan' will be used to refer to the large patrilineal Orokaiva descent groups, each of which claims descent from a common ancestor but cannot trace it in fact. Each clan has a common name and a common plant emblem or erahu.(2) The clan name (frequently that of the founding ances-

(1) Of the 17 persons who were not members of the Inonda sub-clans, 4 came from the Kougaria clan of Urio village and 7 from the Ouambe'undi and other clans of Hoheriha village. This reflects the marriage links with these villages as six of the nine wives came from Urio or Hoheriha. Marriage links with Urio are said to have been maintained for more than two generations, but those with Hoheriha began in the last decade.

(2) Sometimes known as hemiha or hemiu. For a detailed description of the nature and function of the emiha see Williams, 1925. The emiha of the Andiriha clan is tiraai, any plant tied in a particular knot.

CHAPTER 4 - WORK ORGANIZATION

Characteristics of the work force

At the time of our survey there were 23 persons of 15 years of age and over living in the village. One old man was very frail, and one woman who was visiting her brother while she recuperated from an injury, did no productive work. There were no girls between the ages of ten and fourteen, and only three boys. Two of the boys were temporary visitors and did not stay for long and the third, a lad of about ten years, was never seen to engage in any productive work. Children of nine years and under frequently helped with domestic chores like carrying water and firewood, but they took little or no part in agricultural production. This left a work force of 11 men and 10 women, though one man died during the survey, thus leaving equal numbers of each sex.

As shown in Table 9 below, all Inonda household heads except one had been employed,(1) and they had spent at least part of that time away from their home village. With the exception of those employed as teachers, village councillors or village constables, almost all the men had gone away to work before they married (and marriage was consequently delayed for these men). There was no pressing economic reason for young single men to remain in the village, for subsistence gardening is primarily women's work and such men's work as there is to do can usually be done by the head of the household. In fact the people have come to regard a trip away to work as a necessary prerequisite to adult life. It gives an opportunity to earn money (much of which is saved in order to acquire a bride on return to the village) as well as prestige, and the one man who had never had paid work was mocked on that account. Only one Inonda man was employed away from the village at the time of the survey. He was a single man who was working in Port Moresby (and was not included in the survey).

(1) These were three men who were not heads of households. Two were old men who had not had any paid work as it had not been available in the time of their youth. The other was a young man who had spent 4 years as a medical orderly. Three women had been employed - two had spent a year each as teachers and one had spent a year in domestic service.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalisation of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

463 old age or other need. The system was not geared toward capital
472 accumulation, nor was the bulk of material reward retained by the
602 man who made the effort. To achieve maximum economic efficiency a
366 modern entrepreneur must disengage himself to some extent from his kinship obligations. As Table 9 shows, a number of the entrepreneurs studied have physically removed themselves from the village to live near their cash crops, or have built close to, but outside, their villages. Thus while the vast majority of Orokaiva people live within a village, most entrepreneurs among them do not, and all the most successful live outside their home villages.[1] Independence, however, may place the entrepreneur in a vulnerable position. He has reduced access to the security provided by traditional ties, reciprocal obligations and religious rites within the village community, and there are at present no alternative provisions for social security.

Table 9 suggests that there may possibly be advantages in trading away from one's own village and where one is not dependent on one's villagers as customers. All three traders within their own village have had little or no success, and all the most successful groups are outside or away from their home village.

Table 9

Location of store

Location	A	B	C	D	E	F	G	H*	I	J	K	L
Away from own village (i.e. own villagers not usual customers)	•			•				•	•			•
Close to but outside own village		•					•			•	•	
Within own village			•		•	•						

* H's village is to be shifted to the present location of his trade store. He resides within his own village.

[166] Half of the least successful traders were still living in the village of their birth, whereas 75 per cent of the traders in both groups II and III were not living in the village in which they were born.

463 Of the sixty-seven indigenes in the Northern District holding
472 trading licences, twenty-three are shown in the government records
366

[1] Likewise all four entrepreneurs studied by Crocombe (1967:5) lived outside their villages.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14]

245 177 b) The production of crops specifically for sale.

[654] [657] c) The acceptance by the indigenes of supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423] d) The location of houses on the blocks.

e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 [434] [166] Many Yega have made no attempt to earn cash from commercial agriculture. From the time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 178 592 166 Forty-four per cent of all Yega men are away working. Those who are married are accompanied in almost every instance by their wives and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega work in semi-skilled or skilled occupations in [466] which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 178 The main factor in the marked improvement in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with [797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has [464] enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

464
166 Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

434
431
178 All wage-earners send a portion of their earnings to their older kinsmen who remain at
554

[P.17-A]

628 guests, it appears that they were friendly but rather formal. As
594 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts [659] generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepo man resident at Ilimo; thus some Sivepo people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

12] If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepo or Ilimo. Here the pattern suggested in the previous pages has hardly [178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000 [162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepo. The Sivepo people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16) shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a bridepri..e to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is
whether earlier students of societies depending on shifting agriculture
are right in saying that such societies, at least in fertile regions,
● [166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what
potential labour surplus there might once have been has already been
taken up by labour migration of male adults (which, for his sample, he
puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines
economic activity as comprising only the production of food, clothing
and shelter, and argues that, given the existing socio-economic matrix,
all the other activities listed on his time charts (see Table 5)
should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands
has resulted in a saving of two-thirds in the time allocated to specified
axe-using tasks and who concludes from this that a vast potential labour
surplus is thus created. Waddell shows, by a quantitative study of
the allocation of time within activities, that only 38.5% of the time
allocated to an activity is actually given over to the main task, and
even if one includes ancilliear, and other productive tasks, this
raises the proportion to less than 50% of the total time devoted to
that activity. (See Table 17.) As steel implements are used for only
a portion of productive tasks, they did not, Waddell argues, make a
crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
241 in an excellent position to discover this as at the time of his survey
seven of 15 households surveyed engaged in cash-cropping; he was therefore
able to inquire how this affected the time spent on subsistence food
production. As it happened, the median time spent on subsistence
gardening by the whole sample equalled precisely the median time
spent by the cash-cropping households. (12.6 hours per week, vide
his Table 5:5) It appears from the table I derived from Mr. Waddell
(my Table 17) how the cash-cropping families fit in this extra work:
they spend a great deal less time having rests and meals. While non-
cash croppers allocate only 28.4% of the time within activities to
their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell
gives interesting explanations which account for part of this discrepancy,
even if full allowance is made for these, the fact remains uncontestably
that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This
seems to suggest a considerable heterogeneity in working habits as
between the members of the community. The author clearly shows this
A,B heterogeneity to exist as between the sexes and between different age
[See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

CHAPTER VI: Addition and Loss of Community Members

Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16A will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. It seems likely that this increase should in part at last be due to the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant demographic process is the outflow of men as a result of labour migration. Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timuma) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had been residents of Garombi before they became labour migrants. There were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

[167] a village as small as Sivepe, statistical samples will sometimes show
[166] freakish features of which the sociological significance should not be overestimated.

[468] Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities [813] close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and [621] decided it would be wiser if he left too. At one time, such families [657] might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. [593] It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
dispensation, the greatest favours always went to the largest villages.
167 The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
under consideration. There was the same rise in the number of children;
[464] there was little loss through labour migration (only one man in 1962;
as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
[621] explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

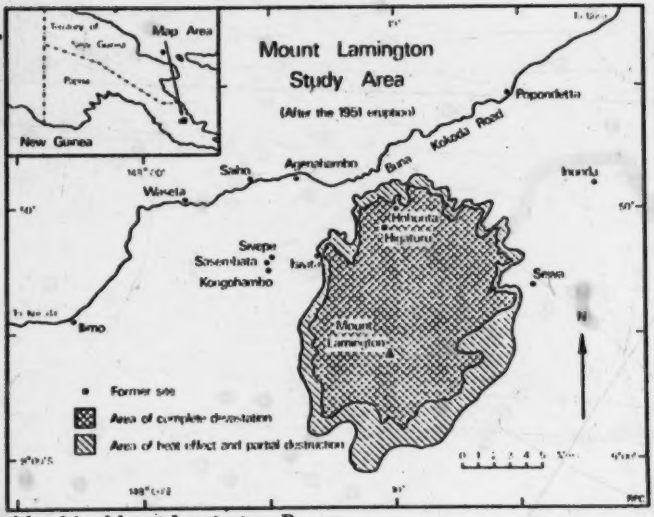
621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one
united big village. When the clans came over in 1959, they followed
the same pattern as the Sorovi immigrants followed in Sivepe: they
arranged their houses so as to maintain, in a subtle but unmistakable
way, their own identity. They formed in effect a second rectangle
which formed a harmonious continuation of the first rectangle but which
was separated by just half a chain. In 1966, the front and the back
half of Hohorita held separate feasts, each inviting a different
village. In 1967, the councillor made plans to clear the gap between
the two halves, remove the two old houses which emphasised the separation
and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves
in Hohorita, leaving their old village behind. I think it was they
[764] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Sombou and Kakita and Sombou
was finally persuaded after the death of an old migrant who had remained
a pagan. As he could not be buried in the Christian cemetery, and
people did not feel disposed to carry out the full involved ritual to
placate the ghost, they preferred to shift their village. (They thought
that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
hospital, three miles from the Higaturu Council chambers. The school,
conducted by the mission on Hohorita station, offers an education to
the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had
appeared which were there for a special reason I have forgotten.
Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
[245] were much better looked after, and there were far more of them. Every
man had his coffee garden and an income of $100 per annum from coffee
was normal. Young trees were also being planted at a much faster rate.
Compared to Sivepe, there were very few wives whose husbands were
● [166] permanently away working. The reason for this was that there are a
number of plantations quite close to Hohorita and those who needed
to work to pay off bridewealth, etc., could do so without going too
far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An
important resource of Hohorita, not shared by Sivepe, is the avail-
ability of good jobs within a reasonable distance; the fact that Hohorita
families do not break up in the same way as Sivepe ones indicates that
such separation is probably economically motivated. It is necessary
for a young man to earn his trophies, so to speak, which in the modern
world means money, but if he can do it without a prolonged absence
from home, he prefers staying home.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23



Map 14. Mount Lamington, Papua.

survivors, established camps to house them, and set up a volcanological observation post. Acting on technical advice that further explosions were to be expected, the administration at once restricted access to a fairly wide area surrounding the crater, thus forbidding most of the fugitives to return to their homes. It was at this stage also that the administration called in two anthropologists, Felix Keesing and Cyril Belshaw, for advice on what should be done with the now homeless population.[7] Shortly after the two anthropologists left the scene in May 1951, volcanological studies indicated that the active, paroxysmal stage of activity of Mount Lamington had ceased and hence that a large part of the restricted area could be resettled. In March 1953, it was possible to reduce the restricted area still further, to a circle of 2 miles surrounding the crater. As a result of these events, virtually all arable land in the district was in use when I visited in 1966–1967. There were no displaced communities in the proper sense of the word. There had been movements of villages from the crater area to consolidated settlements in the vicinity of paved roads, but here convenience

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

rather than security was the main motive. Villagers were able to use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hospital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[3]

My research included three intensive studies of single villages. The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 persons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[4] This third clan group returned to Sivepe early in 1952. Sivepe was rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was concerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion to the mission station. The government had demonstrated in the most tangible way that it accepted broad responsibility for the people's welfare in a time of crisis and would act with great generosity in such circumstances. The mission, which likewise had established close relations with the people of Ilimo, had subsequently remained to develop those relations.

As a control group for the study, I used the small village of Inonda, 12 miles from the crater and outside the restricted zone. Inonda differed from Sivepe in that its population was never evacuated or relocated. It continued to use its own land. The comparison of Sivepe and Inonda thus provides a measure of the effects of actual relocation as distinct from other experiences the two villages had in common. In Inonda only one-fifth of the land is arable; none of it is as fertile as the volcanic loam of the Mount Lamington foothills; rainfall is lower than in Sivepe and so distributed that lengthy droughts are not uncommon. Drainage is inferior while population density is only ten persons per square mile.

Inonda acted as host for the population of Sewa village who fled their homes on the morning of the eruption. Among the fugitives was a mission teacher who set up a school in Inonda. When he was later transferred to another district, Inonda pleaded fervently and successfully to get him back. Today Sunday services are given by a lay preacher and children attend a mission school several miles away which teaches up to grade two.[19] Interaction with government and mission authorities was far less intensive at Inonda than at Sasembata.

The third village I studied was Hohorita (population 348), 7 miles from the volcano, with soil largely similar to Sivepe's, good rainfall, good drainage, and a population density of 135 persons per square mile. Hohorita is made up of the survivors of the Sangara tribe, once 4,000 strong, which was almost entirely wiped out by the eruption. The survivors were evacuated to camps along the coast and then allowed to return to the boundary of the restricted area, where they built a village called Irihambo. They were ordered to leave this village some years later (as it was situated on crown land intended for the settlement of Australian ex-servicemen) and then established Hohorita in 1957–1959. The Hohorita people, like other relocated groups, had had intensive contact with government and mission personnel. An unusually large number entered skilled occupations, partly because the San-

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed to connote all the delights of a carefree life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthrolopologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 bond is respected by both sides and utilized for purposes of mediation. The
628 friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted
621 to affinal bonds or lead to co-residence, in which case an entirely new pat-
572 tern arises. It is possible for migrants into a village to have no bonds other than those of hereditary friendship with their chosen hosts. But once co-
●[166] residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

572 *Apa/eambo* and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds – for two generations senior to ego – but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

572 (a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs
431 in some ritual features from the hospitality shown to affines and to con-
594 sanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

the Australian rulers, although they also know that so far the difference is not great.

Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *sacharum edule*. 262

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine- [224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide 231 comparatively little food. The keeping of domestic pigs in vil- 657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

245 but would estimate plantings to be about 4,000 trees, occupying
177 an area of eight acres.

Among resources which produce significant current income in
311 Sivepe and Inonda, two other types must be briefly mentioned here,
though they must be more fully discussed elsewhere. Income is
434 earned by men who are normally resident in the villages. When
these men are married and living away from the village with their
● 167 families, they provide support to the home people on critical
occasions and also, when villagers pay visits to them. I briefly
met a few Sivepe men who settled in Port Moresby and these men
were called upon, during the year of my study, to pay several plane
fares and feed several men who tried their luck in looking for jobs
in Port Moresby.

Secondly, men who return to the village after outside
167 employment are bringing savings into the village which forms a
464 significant source of revenue. Such savings often form part of the
bride-wealth paid by clansmen and it is thus the affines who spend
[583] it. During the year, four Sivepe men went to Port Moresby for
employment and three returned; one Sivepe man took up a job on a
plantation for awhile, largely to pay overdue taxes; a number of
434 men ordinarily working outside came home for short visits. Probably
837 the most regular income is derived from absentees when the men go
out to work by themselves, leaving their wives and children behind
613 in the village. Six such split families existed in Sivepe; in
every case, regular envelopes containing money were posted to the
wife. In the cases I investigated, eight to ten envelopes arrived
in a year, each containing $10 and sometimes $20. These envelopes
represent a considerable percentage of village income. As long as
the money keeps coming, a man knows that his relations will closely
watch his wife and will carry out obligations towards his affines;
thus, his wife will be kept under strong moral constraint from all
sides. It would be cynical to explain the generosity with which
men maintain their wives wholly by such motives, but the Orokaiva
do regard "looking after" the wives of absentees as a valuable
service and the envelopes are thus a form of repayment. "Looking
after" the wife and children, indeed, comprises a wide range of
services which must be performed by men of the lineage and which
are a reasonable charge against the income of a wage earner. As
most places of employment in Papua-New Guinea do not provide for
married accommodation, we may regard villagers and migrants as
engaged in a joint economic enterprise in which each group performs
services and obtains benefits.

At the time of the eruption several Sivepe men were working
464 on plantations; today, Sivepe people are interested only in the
better-paid town jobs, mostly in Port Moresby. In Inonda, however,
two men often take up short spells of plantation work while a
third, trained as a driver by an anthropologist, has a regular
government job in Popondetta.

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of 162 the population by age, sex and marital status (see Table 16)[A] shows that 464 the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is 166 that young men leave the village to earn money elsewhere. They often 167 do this before marriage, so that the bachelors' houses tend to be 464 occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is 583 unusual nowadays for a bridepri.e to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his [484] affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few 593 children, but they receive regular gifts of money from their husband. 592 Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden [464] and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

22: Schwimmer E-4.5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

TABLE 9

CONSANGUINEAL LINKAGES BETWEEN 51 SIVEPE INFORMANTS AND OTHER VILLAGES, CLASSIFIED BY DEGREE OF NETWORK DENSITY

Principle of Classification: Villages are classified according to the number of informants who have kindred (no more than two degrees removed) originating there. Thus Class A comprises those villages mentioned by one (and no more than one) informant as the birthplace of members of his/her kindred. Class B comprises villages so mentioned by two (and no more than two) informants, Class C between 3 and 5, Class D between 6 and 10. Class E comprises those villages mentioned by more than 10 informants as the birthplace of members of their kindreds. When I speak of "one consanguineal linkage between one informant and another village," I leave out of account how many of my informant's consanguines were born in that other village--it might be one or several dozen.

Density of Network By Classes	Number of Villages In Each Class	Number of Consanguineal Linkages Between Informants and Other Villages
Class A	36	36
Class B	11	22
Class C	19	74
Class D	5	40
Class E	5	61
TOTAL	76	233

629 166

114 kind enough to show me this study in manuscript, I shall utilise it here. The general question with which Mr. Waddell is concerned is
464 whether earlier students of societies depending on shifting agriculture are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what potential labour surplus there might once have been has already been taken up by labour migration of male adults (which, for his sample, he puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines economic activity as comprising only the production of food, clothing and shelter, and argues that, given the existing socio-economic matrix, all the other activities listed on his time charts (see Table 5) should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks and who concludes from this that a vast potential labour surplus is thus created. Waddell shows, by a quantitative study of the allocation of time within activities, that only 38.5% of the time allocated to an activity is actually given over to the main task, and even if one includes ancilliear, and other productive tasks, this raises the proportion to less than 50% of the total time devoted to that activity. (See Table 17.) As steel implements are used for only a portion of productive tasks, they did not, Waddell argues, make a crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was in an excellent position to discover this as at the time of his survey
241 seven of 15 households surveyed engaged in cash-cropping; he was therefore able to inquire how this affected the time spent on subsistence food production. As it happened, the median time spent on subsistence gardening by the whole sample equalled precisely the median time spent by the cash-cropping households. (12.6 hours per week, vide his Table 5:5) It appears from the table I derived from Mr. Waddell (my Table 17) how the cash-cropping families fit in this extra work: they spend a great deal less time having rests and meals. While non-cash croppers allocate only 28.4% of the time within activities to their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell gives interesting explanations which account for part of this discrepancy, even if full allowance is made for these, the fact remains uncontestably that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This seems to suggest a considerable heterogeneity in working habits as between the members of the community. The author clearly shows this heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. How in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of acculturation, as the first school was established at Sasembata in
[891] 1945, and the custom of looking for wage labour outside the district did not become widespread until about the same time. While some Jegase
[167] people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

CHAPTER III: Degree of Homogeneit of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which [591] is hardly more than four miles away. Both the Soroputa men had married [582] Sivepe women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 The traditional pattern was for a man to marry a woman from 582 a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district 169 and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 Of the ten adult women living at Inonda, four came from the 628 Sangara tribe, one from Kendata in the Sasembata district and the others [582] from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

621 social distance also. Relations between Inonda and Ureo or Hobota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garoubi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[773] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

167 already pointed out the usefulness to a village of such men of multiple
563 loyalties because they were the natural ambassadors if something needed to be negotiated between the two groups.

It will be seen that the effect of the eruption on the homogeneity of Sivepe has been minimal: one stranger came into the community
621 through marriage. The ideology engendered by the resettlement villages
167 did lead to some accretions in Sivepe population over the last decade before my visit, but these accretions (from Binduta and Garombi) would hardly make the population heterogeneous. These migrations were over a very short distance, short enough to allow migrants to maintain gardens on their own land, and were facilitated by existing agnatic and cognatic links.

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16 will show that the net [166] population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. [158] It seems likely that this increase should in part at last be due to the improved health services: the monthly clinics, with the possibility [165] of immediate referral of young children to the Saiho hospital, do save 167 a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. [464] Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Tinumu) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had [614] been residents of Garombi before they became labour migrants. There [197] were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garoubi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garoubi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsized to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
dispensation, the greatest favours always went to the largest villages.
● 167 The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
under consideration. There was the same rise in the number of children;
[464] there was little loss through labour migration (only one man in 1962;
as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
[621] explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 177 The Orokaiva of today has to act in conformity with two conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 178 There is, for instance, a taboo on using the names of affines. When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 167 178 The temporary labour migration of young men (who sometimes leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables such as shell necklaces and feathers, cooking pots, but in addition 178 583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 178 There used to be a ceremony to which a boy was subjected at or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepa: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hoborita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they
[764] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

Hohorita, like most resettlement villages, lies along the main
361 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
368 hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohcrita than at Sivepe. The trees
[245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

435 In the Orokaiva village, exchange value may enter in four ways:
436 through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant
[434] item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

[776] We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

461 The term *pure ari* is appropriate to describe the white man's
435 labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution.
[694] Councillor Colin brings this out by his example of the policeman
[759] who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[30] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

435 No great value was usually attached to conversion to western
436 commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

●[167] The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
magical and juridical sense. Often he also leaves behind a wife for
167 whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

169 If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual
[571] universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

435 Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[21]

245 Growing coffee is not considered pleasurable like growing taro.
824 When suggesting to an informant that coffee trees have a sweet smell,
461 I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus
[177]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 delayed or altogether flounder and the relationship may be prevented from developing.

Gouldner's answer to this dilemma was that there must be a 'norm of reciprocity', internalised in both parties, which *obliges* the one who has first received a benefit to repay it at some time. Other sociologists, such as Blau (1964: 92–3), do not accept this particular explanation, because they do not believe that all social constraints are normative 'and those imposed by the nature of social exchange are not, at least, not originally'. Blau argues, in short, that the advantages to be gained from entering into exchange relations are psychologically so compelling that dangers and suspicions are insufficient obstacles. Even those who fully agree that not all social constraints are normative may feel dissatisfied with this psychological non-explanation.

Let us now consider how the dilemma can be solved in terms of Orokaiva social philosophy as presented in previous sections of this chapter. Orokaiva recognise that social exchange is precarious but claim to have various (magical) devices which are successful if properly used. These devices appear in my model as mediating elements. Why do Orokaiva believe in their effectiveness? They do so because the mediating devices have been instituted by demigods whose heroic feats they re-enact in their rituals. There is a strict code saying what should be done and how it should be done. The exchange fails if the code is not followed. What we have is not, as Gouldner suggests, one norm of reciprocity, but a wide range of codes deriving their authority from mythical demigods. The 'starting mechanism' is, in effect, the whole of Orokaiva mythology. I have been unable to find a charter in this mythology for any rule that a person who has received a benefit should repay it; in other words, I do not know of an Orokaiva mythical charter for a norm of reciprocity. All I have encountered are rules stating what acts are necessary if certain types of exchange are to be effected successfully.

776 I shall clarify these generalisations by giving a brief account of the nature of
171 these demigods and of the rules they instituted, so as to be able to set out more
773 clearly their role in the Orokaiva exchange system. The demigods of the Orokaiva resemble those found throughout Melanesia. Not all the cultures who believe in such demigods have a generic term for them. The Marind-anim of Western New Guinea, however, use the term *dema* to refer to all beings who lived in original time, to whom the creation of a feature of the cultural order is ascribed, and who are celebrated in myth and ritual. I shall follow Jensen (1960) and borrow the Marind-anim term, though other terms used in anthropological literature (culture hero, transformer, etc.) have a somewhat similar meaning.

Jensen presents a useful generalised portrait of these *dema*, as they are found in cultures of tropical tuber cultivators. In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a *dema* but through the circumstances of his death or departure, which make his *dema*-like nature apparent and give rise to an institution. Thus, Totoima became a *dema* as the result of his body being shared among his people; Jomiko and Sirere became *dema* after departing, in their peculiar way, from the world of man. Similarly the coconut *dema* is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of

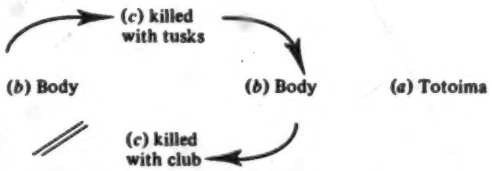
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

776 773 171 son (a man) killed his father with a club, a human weapon. Furthermore, the order of superiority was reversed: it was now no longer man who was killed by a tusked being; man became the killer, pig became the quarry.

From this analysis it would appear superficially that it is not Totoima but his son who ought to have been revered as the *dema*. It is he, after all, who has effected the differentiation between man and pig, who has provided man with pig as his quarry. But this is not how the Orokaiva reason. It is the same with the *dema* Pekuma to whom the technique of meat-roasting is ascribed. Pekuma is not the man who invented, by his own ingenuity, the technique of meat-roasting. He was the victim of another man who played a trick on him, dropped him in a hole, and roasted him. He tasted delicious. The Orokaiva remember Pekuma because he *was* the first roast meat and Totoima because he *was* the first quarry. The gift for which they are celebrated is not their inventive ingenuity but their body, in the form of food. Like the victims of cannibal raids, to whom Jensen devotes a lengthy discussion, the *dema* release their spirit power by the deed of being sacrificed, and this spirit power then becomes available to the killers and to all men.

We have seen, however, that the killing of Totoima was not an isolated event; it was done in response to Totoima's own murderous activities. As Jensen points out, in the life history of the *dema* some fault usually occurs, either committed by the *dema* or someone else, which is represented as the cause of death. We may thus, to some extent, view *dema* myths as a special kind of truncated exchange cycle. Totoima's story, for instance, might be represented in the following diagram in which Man and Totoima are the exchange partners, both of whom offer their body as an object of exchange (or sacrifice):

MODEL 5



In this as in all myths, the exchange cycle is incomplete, as the completing of the cycle in the model would imply that the cycle is intended to repeat itself *ad infinitum*. But the whole point of the myth is that after Totoima it is no longer normal for man to be killed by a pig's tusks, but that pig becomes the normal quarry of man. The world, indeed, has been completely transformed as a result of pig having become man's quarry. Man is now able to multiply rapidly, deriving a great new strength from the pig-meat he is able to acquire. The exchange cycle shown in model 5 has therefore, since that time, been replaced by institutionalised feasting where pig sacrifice appears as an essential mediating element (model 1).[A]

773 574 We may therefore regard truncated exchange cycles such as are shown in models 2 and 5 as the starting mechanism of Orokaiva exchange. To put this more concretely, let us consider the large platform heaped with taro that is

A [See Category 574, p. 58--Analyst]
B [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

differences that must be clearly stated to avoid confusion. When the two earlier authors speak of mediation, they are usually dealing with real existents which appear as binary oppositions in non-empirical cognitive systems, e.g. earth /sky. The mediating element is likewise a real existent which is physically interposed between the two opposites. e.g. trees, birds. Their physically intermediate position is an empirical fact utilised in the building of cognitive systems, which treat trees or birds as mediators between earth and sky.

When Lévi-Strauss speaks of 'mediation' in the context of sacrifice, he warns that he is not speaking of the same thing: while cognitive systems are 'systems of reference' classifying real existents, sacrifice is a 'system of operations', a technique for obtaining certain results where the opposed elements are: the Self (a real existent, in this argument) and the Other – who is transcendant and may be a god postulated for the sake of obtaining the results. While trees and birds are always physically interposed between earth and sky, a pig is interposed between man and god, or between two exchange partners, purely as an operational strategem. It may be replaced by a different object of mediation (a chicken) or by anything else human ingenuity may invent. Lévi-Strauss describes the difference thus:

> *Les systèmes classificatoires se situent au niveau de la langue: ce sont des codes plus ou moins bien faits, mais toujours en vue d'exprimer des sens, tandis que le système du sacrifice représente un discours particulier, et dénué de bon sens quoiqu'il soit frequemment proféré. (ibid. 302)*

This argument applies to social transactions as much as to sacrifice. Certainly, in social transactions *alter* is a real existent, viz. another human being or group of human beings. Yet this *alter* has one crucial transcendental[1] characteristic, namely that *ego* cannot control his will. In making a gift to *alter* we may feel that by the norm of reciprocity we ought to receive something in return, but we can never be sure that we will. Mediating elements used in social transactions therefore have an essential resemblance to sacrifices. They are real existents which are believed to have 'virtue', i.e. to elicit a desired social return, if given to certain classes of partners in certain circumstances. The purpose of the present investigation is to determine why beliefs in the 'virtue' of various objects of mediation are held among the Orokaiva.

It is readily admitted that the system I am studying here is *'un discours particulier, et dénué de bon sens'* and that it does not provide a classifactory scheme representing the universe. It merits the term 'system' only because each exchange cycle forms a system and success or failure in the use of objects of mediation is advanced by Orokaiva as an explanation of a great variety of interconnected event-structures in time. I shall return to these theoretical questions in the introduction to chapter VIII. It will be useful first to survey some of the more elementary Orokaiva magical recipes for effecting social exchange by means of gifts of land, taro and pigs.

2. *Land and its Transfer: Transactions between the Sexes*

The first object to be considered is land. A kind of standard profile of the general characteristics of New Guinea land tenure has already emerged from the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

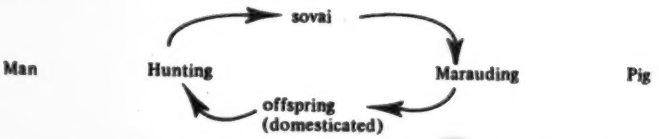
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
[789] calls of its mother. It learns to forage in disused gardens but keeps away from
[775] growing taro. The piglet will not stray too far into the bush but comes home every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of
[462] prestations between the sexes, for it is a task women customarily perform for close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts
231 at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[171] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patrician in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

C13 C23 individuals by creating and fulfilling obligations independently of other members of the descent group.

(iv) Landholding by the local patrilineal groups. After a closer look at landholding by the lineage, we will comment first on non-agnatic and adoptive relationships in connection with land acquisition and then on the interests in affiliation to the dispersed clan branch as a group associated with a territory.

In the instances recorded of title to subdivisions of a lineage's land having descended in 2 or more separate lines we refer to the landholders as members of distinct 'genealogical branches' of the lineage, even if the landholders are parallel cousins. The type of lineage we describe, however, is not characterized by regular internal structure, for often it is not easy to distinguish lineage from kinship in terms of function.

It is as true of the mountain Orokaiva as it is of most New Guinea Highland societies that [17] [611]

> the principle of recruitment to a man's father's group operates, but only concurrently with other principles and is sanctioned not by an appeal to the notion of descent as such but by reference to the obligations of kinsfolk, differentiated according to relationship and encompassed within a span of only two or three generations.
>
> (Barnes 1962:6)

C13 The solidarity of the current relationships between the males of the lineage can be regarded as a function of the closeness of the ties of agnatic kinship, real or adoptive but of close degree, which among the Jegase and Timumu[1] are effectively reduced to a lineal relationship between, at the most, 3 generations of householders. The strength of the readily noticeable identification of the lineage with an estate distinct from the land of the rest of the dispersed clan branch can be seen as a measure of the interdependence between these close agnates.

A lineage such as those in our sample is the largest group whose members co-ordinate their gardening activities to exploit land associated with it. But against this must be set the independence often exercised by individual lineage members, who, in consolidating other ties of their own, acquire and dispose of short-term landrights. Perhaps some individuals co-ordinate their activities with non-agnatic kin, affines and friends as much as with members of their own group.

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[1] Excepting the Bebahupa: all but 1 of its members (see b6) are descendants either of its oldest surviving man or of his father's brother.

621 At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[754 166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [166] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

171 241 361 Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as Williams says, the Orokaiva move their garden sites frequently. Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Hahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous holdings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepa on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepa. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
171 result in repeated changes of residence as it does among the
425

[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

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Table 5

Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)	
1. Planter is a member of lineage holding proprietary rights	15	9.17	
2. Member of a different lineage but same clan branch	5	2.57	
On land of planter or co-resident agnate			11.74
3. Member of a different clan within the same village	10	4.49	
4. Member of another branch of the same clan	1	0.10	
5. Member of a different clan and village	3	1.51	
On land of others			6.10
	34		17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.[A]

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Chimbu or to influence the choice of a garden site; a Sivepe man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups.

[614]

A,[See Category 245, pp. 83-86; Category 249, pp. 87-93; Category 423, pp. 96-98--Analyst]

425 In such circumstances where the recipient and the original rightholder have lived in the same village or in neighbouring villages which are closely related and have worked together the land in question will be occupied by a person who has already established and maintained an accepted status in relation to the former landholder's group and who often has special relationships to particular kinsmen within it. At the time, accordingly, the transfer is to the recipient as an individual[1] and not to a [428] patrilineal group. After the passing of a generation however it will come to be regarded as part of the heritable territory of his agnates.

Moreover, there may be no immediate change in the use of the land involved and the extent of the rights being exercised may not be clarified for some time. In several cases we noted that a balance was eventually struck in dividing the land between claimants who were co-resident but distantly related patrikin of the deceased rightholder and those who were co-resident non-agnates.

Unfortunately, since our survey was short, we could gather little significant evidence of any disputes which may arise between parties with conflicting interest in such land. Our data include on the one hand instances where a transfer of rights still within memory has been confirmed over time and on the other the stated intentions of members of landholding groups as to the transmission of their rights.

Since the blocks involved are small and the fragmentation and interpenetration of the holdings of patrilineal groups is extensive, there is little concern for the maintenance of the continuity of the territory of these groups.[2]

These transfers which are prompted by individual needs and [428] demographic changes lend flexibility over time in the distribution of land which is a comparatively scarce resource. Population pressure has not resulted in greater conformity to the ideal system of patrilineal inheritance of available land.

171 (ii) Orokaiva and Chimbu land holding and residence compared.
121 We maintain that our account of the mountain Orokaiva shows not only the underlying contrast, in some respects, but also the significant characteristics in common with the Chimbu so that it

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[1] But in some cases a clear identification of the recipient may be arbitrary - e.g., to name him as either an affine or else a cognatic kinsman of the original holder is sometimes rather inaccurate, if the kin of these categories are father and son (see Appendix E, p.111).

[2] See Brookfield and Brown 1963:133.

A, [See Category 428, p.111--Analyst]

[7] [2] is appropriate to argue for the relevance of the hypothesis of Brown and Brookfield (Brookfield and Brown 1963:176-7;: Brown and Brookfield 1959:74-5) concerning the allocation of the land of Chimbu descent groups and the incorporation of non-agnates. They note that among the patrilineal Mae Enga the proportion of non-agnates allowed to reside on and use land in clan territory has been shown to decrease with an increase in population (Meggitt 1958:264) whereas this correlation does not hold for the territory occupied by the Chimbu clan.

In explanation they cite the facts that in Chimbu the major political-territorial unit, the tribe, has a larger membership than the Enga unit and contains not one but several exogamous clans. Political and ceremonial functions are concentrated in the exogamous Enga clan, which has sharply defined territorial boundaries. Only in Chimbu can land needs be easily accommodated in the political unit by means of land transfers between individual kin and affines in neighbouring clans, and it is significant that individual grants are more common means of redistributing land than among the Enga.

We will focus discussion of our evidence by proposing as a reasonable correlate of the largest Chimbu territorial and political unit the Orokaiva district, on the grounds that it was a territorially distinct unit within the tribe.[1]

The first premises assumed are that the scale of difference between Chimbus or Enga and the mountain Orokaiva in respect of pressure on productive land occupied by the heavy local concentrations of populations (e.g., in Orokaiva districts) is not of significance here; and that the characteristic method[2] of ensuring equitable distribution in both the Chimbu and Orokaiva landholding systems is by frequent transfers effected through interpersonal ties.

Moreover, several differences between the 2 societies should be noted:

(1) the district in our comparison may have included an estimated 1,000 persons as against 4,000 in some Chimbu tribes;

[6] [19] (2) unlike Chimbu there were no large-scale peace-time activities or ceremonial in which either the Orokaiva tribe or district emerged as a solidary unit (Brown and Brookfield 1959:5, 45 ff.);

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[1] We could have chosen the tribe, the inclusive effective political unit, without necessarily invalidating our comparison.

[2] Though not the only important method.

171 619 121 (3) the district had a compact territory (unlike the tribe) but its members were not all bound in mutual support in attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

614 171 121 (4) the Orokaiva clans which were scattered, often through several districts, did not have a single territorial focus and were radically different from a Chimbu clan; the latter is much more localised in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

121 171 In the present study an adequate discussion of the hypothesis requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. Much of our earlier discussion has dealt with residence and local organization and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organization between these Orokaiva and the Chimbu (or Enga, etc.).

171 621 121 Over and above these differences there is in the principles of organization of the local communities of the 2 peoples an essential similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

171 breaks down between [these] clans with land loans, gifts
121 and membership changes....

(Brookfield and Brown 1963:158)

621 Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-5).

423 Individuality in land control is reinforced in both societies
171 by the absence of formal inherited positions of leadership and a pattern of interpenetrating territories is caused by processes of individual acquisition and retention (see Brookfield and Brown 1963:141, 156).

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 A registration scheme would function best as a mechanism for
423 resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no
[578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 We contend that it is legitimate to extrapolate our local in-
[171] formation by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 Finally, we wish to indicate the general significance of the
423 type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

[73] [433] than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

[178] [171] The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

[177] [799] [657] (iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. [166] Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

[4] Belshaw (1951:248) makes a similar allusion.

24 [433] holdings of commercial trees are not fully, and sometimes not at all, exploited by the owners.[1]

Most have been established on land cleared for the purpose and are seldom interplanted with subsistence crops. However, a 'catch crop' of taro, sweet potato or corn may be taken from the newly cleared land before planting coffee or cocos and it is only now becoming common to plant commercial trees in subsistence gardens after the food crops have been harvested.[2]

245 The techniques of cultivating and processing cash crops within the village are simple. Coffee is sold in parchment form. In most cases the cherries are pulped by stamping in a creek to split them open, and then the beans are removed by hand and washed. Some villages possess pulping machines. After fermenting for about twenty-four hours in wooden containers, the beans are washed again and sun-dried. A few people erect drying platforms but most simply spread the beans on sleeping-mats in the village square. The buying agency rejects parchment that has not been adequately dried but no price differentials are applied. The coffee season extends from about March to October and people may begin weeding some weeks 474 beforehand. OCCS announces the season's coffee price (as determined 245 by world market conditions) some weeks before buying commences, but few producers learn it in advance and, since they need to begin harvesting a month or two before the time of sale, the element of uncertainty may deter them from maintenance and harvesting even in years of high prices. All coffee is purchased by the society, which is sometimes prevented from buying by lack of funds, lack of transport, or by the poor state of the roads. Buyers may visit only once a month or less.[3] There is scope for an immediate quadrupling of production from existing trees,[4] and more active campaigns and perhaps additional buyers might help achieve this.

245 Cocos, like coffee, is maintained, if at all, by occasional clearing of grass and weeds from around the trees. Harvesting is carried out immediately before sale - if possible, on the same day.

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[1] The coffee trees in Popondetta sub-district in 1963 should have yielded about 200 tons of polished coffee, but the actual level of output was only 41 tons (DASF, Popondetta, File 1-6-A(4)).

● [171] [2] This practice was followed by indigenous smallholders in Malaysia and Indonesia for two decades and resulted in the planting of millions of acres of rubber by the 1930s. See, for instance, Thomas 1965:101.

[3] In marked contrast to the more densely populated and more accessible parts of the highlands where competition among buyers is keen and some routes are visited daily.

[4] See footnote 1 on this page.

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about
[342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
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> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

433 179 attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

433 178 Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

[565] [171]

361 178 166 Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

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Nevertheless it is incorrect to apply Salisbury's proposition (1962:216-20), that the change from a stone to steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks, as further evidence for labour availability. Apart from the fact that the proposition itself is not based on quantitative data and must be regarded only as a hypothesis, if, for the sake of discussion, the factor of 3 be applied to time spent in clearing, fencing and construction (the main axe-using tasks) in Sivepe and Inonda, an additional 10.8 and 11.6 hours per man-week respectively would be required for the work with a stone technology. Since 10.7 hours in Sivepe and 10.0 in Inonda are already being directed to the external sector each man-week virtually all the labour time made available as a result of this technological change is in fact being utilised.

While there is no evidence from the activity patterns to suggest any seasonal conflict in the labour requirements of cash and subsistence cropping there is, nevertheless, some inconclusive data from both villages to suggest that a substantial extension of cash-producing activities would conflict with the requirements of the subsistence sector. In Sivepe the processing of coffee - the most labour intensive of all cash cropping work - and the harvesting of rubber typically occur early in the day and so before the start of the normal daily routine, suggestive of the fact that extra time is 'made' to carry out these tasks.[1] At Inonda it appears that where a household head engages in full-time employment for more than two or three weeks the family finds difficulty in maintaining its food gardens and so meeting all its obligations.

[245] [249]

Given that the development of cash cropping bears a direct relationship to activity patterns the data suggest the basic issue to be not one of absolute availability of labour but rather of the organisation of labour and time. The hypothesis is suggested that in a primarily subsistence-oriented economy, those cash-producing activities which do not demand a significantly different and longer work routine will be preferred. The basic feature of this routine is that one activity need not be pursued to the exclusion of others and each can be interrupted at will. So the Orokaiva working day (and week) encompasses a wide range of tasks, each pursued for only a relatively short period of time. As with the Aitutaki villagers of the Cook Islands, 'commercialization has led to few appreciable innovations in the cropping system, land tenure, technology or labour' (Johnston 1967:68).

[171] [178]

The present relative adjustment of cash to subsistence cropping may only be a temporary feature of the village economy and the fact

[1] However, a higher yield of latex is also obtained by tapping early in the day.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

(b) The commitment to cash

437 Among the Orokaiva money serves to fulfil commitments to the external sector of the economy, to add variety to the diet and to acquire substitutes for those items of the traditional technology no longer produced. In these respects there is a manifest commitment to cash, but at the present level of acquisition there is insufficient available to effect major improvements in the standard of living. While Orokaiva priorities for its use may differ from those preferred by an innovating agency it is scarcely possible to speak of 'inappropriate systems of consumption which act as obstacles [71] to increasing production and commercialisation'.[1] The available data demonstrate the absolute insignificance of large ceremonial exchanges and, in this respect, the Orokaiva, as observed, do not conform to the pattern generally described in the ethnographic literature dealing with other traditional societies. In the absence of a developed market economy and the scarcity of its basic prerequisite, cash, reciprocal exchanges based on kinship serve as an effective means of exploiting the resources available to the several socio-economic groups and of providing an important measure of social security.

The analysis of activity patterns has demonstrated the two communities to be primarily subsistence oriented. Data on exchange reveal that, while much cash is acquired independent of direct productive effort, the requirements of subsistence largely dictate the manner in which it is utilised. This consideration applies to members of all the socio-economic categories where, for example, wage earners are unable to provide accommodation for their dependents and ex-servicemen settlers have inadequate resources of capital and labour to develop their holdings satisfactorily. It would appear that it is the villagers' concept of subsistence itself, and their assumption that it is both distinct from commercial activities and that viability at this level must be achieved prior to involvement in the latter, which is central to the problem of development rather than simply considerations of mechanisms of exchange or availability of labour. It is because of this that the issue of 'marketing' subsistence products among kin emerges as a crucial one to the Orokaiva.

[p.284 is blank]

[1] See p.182.

000 rates of pay than do the plantations. There is, however, disagreement between the indigenes and the mining company regarding the future distribution of profits from the copper.

361 Although there is a marked similarity in the structure of buildings in the two areas, settle-
●171 ment groupings are dissimilar, partly because of topographical differences but particularly as a result of the recent changes which have occurred in the Yega pattern of settlement.

121 The third area of study, that of the indigenous community in Port Moresby, is distinct. It has been included because more and more village people, particularly young educated men, are choosing to live and work in towns and it is rightly recognized that, although the towns contain only a small fraction of the Territory's population, the people living in them are the most politically sophisticated, vocal in their dissatisfaction of their present status and, of all the country's inhabitants, most susceptible to propaganda. The distinction is made in this section between those indigenes who are the traditional inhabitants of the land where Port Moresby now stands, and those whose lands are elsewhere but who now live and work in the town. It is this latter group that is classified as indigenous migrants.

[P4-B)

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout
[171] the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A)

[TEXT CONTINUED ON PAGE 12-A]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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614 182 not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled [842] clan patrimony together. It is therefore tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 ● 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories [813] implying causal connexions. It is notorious [824] that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *tauga* leaves fall while the main taro crop is coming up and postulate that it is the dropping *tauga* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

121 an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

114 This point has already emerged from the debate between Leach, Spiro and Kaberry when Kaberry showed evidence that the tribes she studied 'had no idea of the true relation between sexual intercourse and conception' while she admitted that these tribes know empirically that sex relations are a necessary preliminary to pregnancy. She made the valuable point that her informants' empirical knowledge does not logically entail a 'correct' theory of procreation. The Orokaiva case again illustrates that such empirical knowledge may serve as a building block for a wide range of soundly constructed though perhaps 'incorrect' causal theories.

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113 Leach, E. R. 1967. Virgin birth. *Proc. R. anthrop. Inst.* 1966, 39–49.

Spiro, Melford E. 1968. Virgin birth, parthenogenesis and physiological paternity: an essay in cultural interpretation. *Man* (N.S.) 3, 242–61.

[P.133-B]

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepe, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

121 To what extent can one speak, in these villages, of factionalism? This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
●[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt to take sides along this predictable lines of division. Among the
[578] Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepe, were hardly ever repeated from one occasion to the next. Factionalism in Sivepe was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

cept of friendship which *excludes* kin. The quality of *philia* can bind together kin and non-kin alike. He does not exclude purely political and economic forms of *philia*, though he regards them as being on a lower level; that is, useful but not necessarily pleasant or good. In this essay, I shall disregard them, restricting myself to relationships in which intrinsic benefits are exchanged.

In addition to kin relations, then, *philia* includes a residual category of affective relations between non-kin. In the first instance, I shall define friendship as this residual category. I recognize the feebleness of such a definition and can understand why Paine (this volume, pp. 117–37) rejected it. There can, in fact, be only one justification for setting up this residual category, and that is that our analysis is able to reveal in it a structural principle.

My main purpose in this essay is to demonstrate how we can arrive at such order or structure in one specific case: the Orokaiva of the Northern District of Papua. But the entire discussion requires the use of concepts which are by no means familiar from previous literature. Hence, I have provided a preliminary survey of some empirical illustrations of these concepts. First, if we make a conceptual distinction among *philia*, friendship, and kinship so that the *philia* set is always equal to the sum of the friendship and kinship sets, then four real possibilities exist: 1) there may be no friends at all (but I know of no cases of this supposedly primitive pattern in Oceania); 2) all persons designated as 'friends' are primarily classified as 'kin'; 3) all persons designated as 'kin' are primarily classified as 'friends'; and 4) there are two sets of persons known to every individual who classify some persons exclusively as friends and some as kin.

Secondly, a society may have a notion of *philia*, but it may classify the members of the *philia* universe by criteria other than the presence or absence of consanguinity. Theoretically, there could be an infinite number of ways of subdividing the *phila* universe, but let us limit ourselves to three: 1) consanguinity is the basic criterion; 2) consanguinity is no criterion; 3) consanguinity is only one criterion among many.

I shall clarify these preliminary points by illustrations from different parts of Oceania.

OCEANIC NOTIONS ABOUT KINSHIP AND FRIENDSHIP

Theoretically, we might expect to find in all societies three different systems of discourse about social associations: a kinship system, a friendship system, and the more comprehensive *philia* system. In practice, we may find a good deal of overlapping in specific societies, but even then, the distinction between the three systems may prove to be analytically profitable.

For instance, some societies do not have a distinctive membership group outside the kin group where *philia* relations are maintained. An example

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

171 would be the New Zealand Maori who insist on tracing kinship before they begin any significant social association. Thus, they have (or had, until recently) no friends whom they could not define as kinsmen. Yet, this requirement does not greatly restrict their choice of associates as their range of kinship recognition is extremely wide. Erudite Maori can recite genealogies of sometimes over twenty generations in length, counted ambilaterally. They use sophisticated techniques by which host and guest can explore and discover where they "link up."

Although the kinship idiom is always dominant in formal contexts, the Maori also have a friendship idiom which is frequently employed in informal situations. The word *hoa* (meaning friend, mate) is in no sense a kinship term and does not imply kinship. It is used between persons of same or opposite sex but usually only within the same generation. One frequently hears it between husband and wife. Unlike the kinship terms, it does not connote relative seniority (*tuakana/teina*) but is reciprocal. It signifies a relatively unrestrained, warm, affectionate, cooperative, equal, personal, and private relationship. The fact that it carries no connotation of kin obligations makes it suitable for easy informal discourse. There is thus no category of persons called *hoa*, but we do find an idiom of reference and address that expresses friendship.

Pending a full study of the Maori *philia* system,[3] we may deduce that there are two main principles involved: first, the totally inclusive genealogy of the world to which Levi-Strauss alludes (1962), and secondly, the relatively large but carefully delimited cooperative group with its mythologically ordained land boundaries. Competitive exchange between these groups is a fact of life but it is glossed over on the level of the model which emphasizes genealogical connection and brotherhood, as might be expected in a segmentary system where the competitors are always ready to rally against an external enemy.

Theoretically, there is a second type of system that may be adopted if no distinction between kin and non-kin is made within the *philia* universe. It is possible to emphasize the friendship idiom – or the history of valued associations – and to limit to the utmost the use of the kinship idiom. A brief reference by Craig (1969:177) suggests that this is the system of the Telefolmin of the Western Highlands of New Guinea. Like the Maori, the Telefolmin are cognatic and recognize a wide kinship network; but they have little interest in genealogy and have no clear-cut pattern of segmentation. In their social relationships, they do not think in terms of kin and non-kin, but in terms of "friends" (that is, kin with whom there is a long history of close association) and strangers (who may be known kin).

3 A full study of Maori social structure remains to be done, but the classical data are summarized in many sources; see especially Biggs, 1960; Firth, 1929; Makereti, 1938. For the contemporary structure, see Hohepa, 1964; Metge, 1964; Schwimmer, 1969.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

171 This difference in the emphasis placed by the Maori and the Telefolmin on kinship and friendship idioms can be explained by ecological, demographic, and ideological factors. Telefolmin cooperative alliances are very small, most of them being no larger than the extended family. Thus, all the emphasis is placed upon the exchange relations between these small groups whose security is based on highly flexible, unstable inter-group coalitions.

The Maori and Telefolmin cases are illuminating as they show that it does not suffice, in the present study, to analyse membership groups, but that we must also distinguish between idioms of discourse even where no distinctive kin and non-kin groups are present in the *philia* universe. In many Oceanic societies, however, we do find such discrete categories, the fullest published account of the friendship category being Burridge's work on the Tangu (especially 1957a, 1969).

Tangu distinguish two relationship systems, each with its own terms of reference and address, its own rules of recruitment and inheritance, and its own positive and negative marriage rules. Where kinship is recognized, persons always use the kin idiom (Burridge, 1965:227). Where kinship is not recognized, a choice exists between two terms of reference. A man may have a hereditary friendship with *kwaver*, a term not found in the kin terminology system, or with *mwerkindanger*, a term equivalent to brother-in-law in the kinship idiom. Whichever is used, the friendship system is formally free of the obligations characteristic of the kin categories. Unfortunately, the data are not clear as to the criteria used in choosing between the two friendship terms when establishing a relationship. We are told, however, that a *kwav* relationship must be converted into a *mwerkindang* before intermarriage is possible (and then only in the next generation).

As for the total system of Tangu *philia*, Burridge (1965:226) classifies all male collateral relationships as being either cooperative alliances or group exchange relationships. The folk model for a cooperative alliance is the relationship elder brother/younger brother; the group exchange model is the relationship existing between married siblings of different sexes (between brothers-in-law or *mwerkindanger*). Communities tend to be divided structurally into "roughly equivalent halves"; within each half, resources are pooled under the loose control of a manager. Between the two halves, competitive exchange relations prevail, emphasizing the equivalence of prestations. Conflicts lead to a re-arrangement of personnel between the halves whose membership is never wholly determined by kinship (Burridge, 1957b).

Terms such as brother and brother-in-law in the Tangu language refer to patterns of behaviour rather than to biological relations. Thus, a younger brother who is unduly competitive in his behaviour towards his older brother is *classified* as *mwerkindanger*; the wife of a friend with whom ego establishes a *mwerkindang* relationship is called sister and is treated as a sister. Thus,

25: Schwimmer E-5 (1966-1970) 1974 QJ23 Orokaiva QJ23

●171 if a man decides to visit the village of his friend (*mwerkindang*), he will tell his own people, "I am going to my sister."

Burridge shows that Tangu undoubtedly have special friendship institutions, and that in these relationships, one does not make the same claims and demands that are made among kinsmen; indeed, an ideology prevails in which gifts between friends are free. Thus, a real brother-in-law would be more demanding than a fictive one. Nonetheless, it appears that the structural level with which I am concerned here involves the same conceptual category. The friendship relation differs from the affinal one not in its essential nature, but in the way it is generated and in its tentative, preliminary character. For there is an assumption that over the generations, a non-kin *mwerkindang* relation will turn into an affinal one, as Burridge himself makes clear.

Anthropologists customarily refer to such practices as fictive. Thus, a younger brother among the Tangu becomes a fictive brother-in-law; the wife of a friend becomes a fictive sister. Southwold (1971) has criticized this terminology and suggested that we distinguish between the types of relationship according to whether they are cooperative, reciprocating, and so on, specifying the rights and obligations of each type and the "attributes of tenure"; that is, the rules for recruiting members into each type of relationship. Southwold thus reduces kinship to a set of attributes of tenure, but unrelated persons may enter into the same types of relationships on the basis of attributes other than consanguinity or affinity.

Southwold offers a typology of *philia* relations (or, "congeniacy" relations, to use his term) but this typology is perhaps more illuminating in his own East African than in our Oceanic context. While the English describe the categories of specific *philia* systems in terms of abstract concepts such as "cooperative alliance" or "competitive group exchange," the Tangu designate these same categories by terms such as "brothers" or "siblings of opposite sex" which they explicate in myths and illustrate in ritual behaviour. Burridge (1965) shows in much detail the religio-philosophic ambience of this terminology. Once kin terms have been given meanings on more abstract levels, it then becomes possible to use them in categorizing relationships to which they were not primarily applied.

In carrying on this operation, a society may (but need not) make distinctions between biological and non-biological recruitment criteria to each of the categories. If it does, then it may designate a member recruited by non-biological criteria as fictive, nominal, extended, classificatory, and so on. If a society does not make the distinction, it may still classify the members of a particular category as true, nominal, feeble, but then the criteria for this secondary classification will be based on a quite different and non-genealogical principle to be empirically established by the investigator.

An interesting case of such an investigation is Glasse's work on a category of fictive kin among the South Fore. He reports (1969:30–34) that their behaviour closely resembles that of genealogical kin. Everyone in South Fore

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

has a number of such *kasiga*, as they are called, and they are "just as important to the people as those founded on genealogical connection."[4]

South Fore distinguish between "true" and "tenuous" relationships, but this distinction refers to the importance and the solidarity of the bond and not necessarily to its genealogical basis. A man may refer to his *kasiga anagu* (that is, his *kasiga* mother's brother) as a "true" *anagu* while a less dependable, less helpful, but genealogically related mother's brother may be called a "small" *anagu*. Glasse's data indicate that the South Fore *philia* system contains a category of senior persons described by informants as "the person to whom I give and who reciprocates." Religio-philosophic notions about the mother's brother and ritual acts involving him provide a model for this category of persons but this does not necessarily confer special status on persons who happen to be ego's male cross-cousin in the ascending generation.

At the periphery of the *philia* universe, we find persons who are primarily viewed as trading partners and political allies. In societies which have institutionalized hereditary friendship, often there are also non-hereditary forms of friendship in which no assumption of long duration is made, but it is always possible to convert such a friendship into an hereditary relationship if this becomes appropriate.

Societies such as those in the Mount Hagen district where hereditary friendship has not been reported so far, have the kinship, friendship, and *philia* structures which I have identified in this essay. However, the only friendship category about which we have much information is the trading and political partnership analysed by Strathern (1971). It is never formally hereditary, but "if the son is fairly experienced by the time his father dies, he may be able to take up some of the more important exchange relationships in which his father was involved and thus effectively 'step into his father's shoes' " (*ibid.*: 208–13). *Strathern reports that moka* payments are not made to a man who is near death, but to his son instead. This is effectively a transfer of the partnership.

The friendship idiom is used not only between unrelated partners, but also between distant kin who decide not to acknowledge the kin bonds existing between them (*ibid.*:144). Strathern does not say why they ignore these bonds, but he does show that serious disputes are more common between unrelated than between related partners (*ibid.*: 169–70). It appears that kinship recognition among these tribes varies along two axes relative to kinship distance and to the usefulness and pleasantness of the exchange relationship. In these circumstances, the boundaries of kin recognition probably approximate the boundaries of the *philia* universe as we defined it. They are shifting, unstable boundaries which persons are continually crossing.

4 The meaning of *kasiga* which is "when the sun is directly overhead," "when people gather to prepare communal meals" clearly implies involvement in public social exchanges and commensality.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namei* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970). Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

our concern is with the total *philia* universe. Meaningful contacts outside the village tend to be almost wholly with persons of the same generation. I shall therefore discuss the intra-generational terms of reference and address, both in the kin and friendship idioms, and both in the Sangara and Sasembata dialects.

The kinship idiom[7] (discussed in detail in Schwimmer, 1970a) contains four consanguinal and three affinal terms; an oversimplified analysis gives the following meanings (for an explanation of the symbols, see footnote 7):

apa SS Sen G-O //C	*simbo* G-O X C	*dambo* Me SS G-O A
eambo SS Jun G-O // C	*ivu* husband	*hovatu* OS G-O A
du OS G-O // C	*ae* wife	*bi* Fe SS G-O A

Affinal relations, according to explicit Orokaiva norms, are cold, formal, and distant though polite, and restrained by strict taboos. Affinal terminology always carries the connotation of obligation and avoidance, and it is never suitable for easy informal discourse. Indeed, when a person desires to keep up easy, informal relations with an affine (and this occasionally happens), his only resource is to maintain whatever term of address he used before the marriage.

All the consanguine terms, however, are regularly used in addressing unrelated persons with whom hereditary friendship links exist, at least in the Sasembata district. *Apa* and *eambo* are also used between men in the same context as the Maori use the term *hoa*; that is, informally and without any implication of kinship or permanent relationship. The wife of a fictional *apa* or *eambo* is called *du* (sibling of opposite sex), but never by an affinal term. The fictional *simbo* differs from the fictional sibling with regard to reciprocal rights and obligations, as will be shown below.

The following Orokaiva terms are used exclusively in a friendship context: *namei* (Sangara) or *apa/eambo* (Sasembata), designating a male friend of a male speaker in the same generation; *otavo* (Sangara and Sasembata) meaning a partner in trading or dancing, or a journey, or a war expedition – a

7 The following classificatory principles underlie the Orokaiva kinship system:
Consanguine (C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.
Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G-O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: Me: Male. Fe: Female.
Relative sex of ego and alter: SS: Same Sex. OS: Opposite Sex.
Relative sex in consanguineal linkages: //: Relationship is either wholly agnatic or wholly uterine. X: Relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite sex linkage.
Relative age of alter: Sen: Older. Jun: Younger.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

571 But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

571 604 881 Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

602 572 171 How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

431 437 572 Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would [576] be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and [626] if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation. [558]

In considering the manner in which these gifts are given, Sahlins'

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 tended to play down such a possibility. While the concept of exploitation is perhaps more directly relevant to Marxist theory than alienation, it has certain drawbacks that are now widely recognized. Where use-values are predominant it is common practice to set up not so much a division of labour (Vernant has rightly argued one cannot call it that) but rather an allocation of tasks to persons or social categories who are thought to have special competence for them. Thus, as the most common example, certain tasks are allocated on the basis of criteria like age and sex. Now, this is not in itself exploitation though obviously it may well lead to exploitation. We therefore need a criterion, other than that of the task allocation itself, to determine whether exploitation in fact occurs.

462 I shall press this point by citing one counter-instance. Among the Orokaiva only women are considered competent to harvest.
562 Men never do it and claim that, if they did, the taro supply would be exhausted too soon. As an exception, they do harvest taro for feasts, and this exception only goes to confirm that they would be far too prodigal to act as daily harvesters. Is this just a story to exploit women? When crops are being marketed, the rule among Orokaiva is that the men carry the coffee and are paid for the coffee, but taro and other subsistence vegetables, when taken to market, are taken by women who also retain the money. Their right to the produce is maintained not only for the daily food supply but also when there is money to be earned. Their right to the product of their labour does not seem to be questioned. Thus, by the criteria we have been using, Orokaiva women are not an alienated labour force and it will be seen that *alienation* is more convenient in an operational sense than the concept of exploitation, which may be too broad.

171 While studies of alienation in Melanesia are rare, it is possible to give some indication of the patterns. M. Panoff, in his study of Maenge suicides (1970), did not question the generally accepted model of Melanesian society as governed by certain strong exchange and 'equivalence' principles. He points out, however, that there may well be a minority of marginal individuals who are somehow too weakly established to be within the range of those principles: they may at times press their rightful claims, but without success. Panoff shows that the male suicides among the Maenge occur as a general rule against this background of ruthless and unlimited exploitation. In fact it is only suicide that sets a limit to exploitation in such cases. The proportion of people Panoff places in that category appears to be of the order

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

Our discussion of the culture hero Jesus Christ was necessarily incomplete. For he did not institute merely payment for labour – a real gift to man but, as we have seen, somewhat limited in scope, but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a rationale, satisfying to themselves, for the behaviour patterns they are now adopting in response to the impact of the white man's power? This is the question to be explored in the next section of this chapter. I shall put foward the suggestion that the Orokaiva actually developed an interesting and satisfactory explanation of recent cultural changes, using the concept of a new *dema* who set new exchange cycles into motion. In demonstrating this point, I shall quote at length from informants' statements so as to indicate clearly the nature of the primary evidence on which I have drawn.

2. *A New Starting Mechanism*

I shall begin by quoting a tape-recorded speech made by a member of the Higaturu local government council at a meeting held at Torogota village, Sasembata valley.[2] The reader may well doubt the sincerity of this speech, as I did myself when I first heard it. I discovered, however, that councillors frequently address meetings in similar terms. Trusted Sivepe informants told me that the recorded speech is typical of what that councillor usually said. It was elicited when I asked the men of Torogota for tales about olden times (*iji matu*).

The councillor started with a sketch of the wars of his forebears. His 'grandfather' Bohuka, with a group of migrants from Waseta, and other villages, drove off the inhabitants of a village called Hingo Kakasita and settled on the land of that village:

> Today his grandchildren call this our land, but they are weak grandchildren of strong ancestors. . . . All this is communal land (*company enda*) conquered by our forebears. As a new day has now arrived, I tell you to be united. Therefore you must follow my instructions. The councillor for Sasembata is speaking. Everybody who speaks north, east, south or west should now stop.
>
> Now I am speaking about this old village here. I am Councillor Ase. I am saying: follow this word and hear it. I shall therefore tell you how they (i.e. the Europeans, the *taupa*) talk: 'Those men were all felling the tree. The man whose name I mentioned was a fighting man. His enemies killed the wayfarer like a dog. The Waseta people beat and chased them, came here and stayed.'
>
> I am councillor Ase. Here we live, people, in this very old village. We are the descendants of fighting ancestors, therefore we live here. We say that we live in the land where the *seha* grows (a useless bush tree) or where the *inota* grows (a useless cane looking like a sugar cane) or on *gindiri* (i.e. sandy, infertile) soil. We stay in an old village, but people are saying we are living on communal land; we are staying on a place we took during a raid. They are saying: 'The Waseta men had weak descendants. They stayed here because they were defeated.'

A little later during the same recording session, Councillor Ase spoke again. This time he started with a description of various magical powers traditionally possessed by the Orokaiva. He continued:

> In those days people did these things. They did not take jobs for only Jesus Christ gave jobs that people could take. The village constable bound people (with handcuffs) and took them if he believed they were telling lies. He took them to Kokoda and Court was held; then they would start work . . .

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .

In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

generations of undisturbed occupation and have reinforced their position by frequent marriage connections and subsequent kinship ties with the Tandai'undi, they still recognize that some residual rights are held by the Tandai'undi. The extent of these rights cannot be closely defined except in relation to specific situations. For instance all parties seem to be agreed that the Tandai'undi could not plant the Inonda land without the approval of the leader of the Andiriha sub-clan and in fact they neither plant nor hunt there. Likewise, it is agreed that if the Andiriha died out their rights would revert to the Tandai'undi. Although there is no disagreement about rights of this nature, trouble would almost certainly arise in the event of incidents (such as cash sale of land to an outside group) for which there is no traditional precedent.

It is perhaps significant that most of the Inonda people have planted their cash crops on the other side of the Girua river on land to which the Tandai'undi have no claim. Moreover, a recent survey by the Lands Department shows Inonda as Tandai'undi land, though the Inonda people consider this to be an error.(1)

According to the oral history of the Inonda people, they have acquired land rights at various times by discovery and settlement of vacant land (at Aramba), by permissive occupation (at Wauta and Sambogo) and by customary transfer (at Inonda). Conversely they have lost rights by defeat in war (at Aramba) and by voluntary abandonment (at Wauta and Sambogo).

The Inonda people have shifted their village at least eight times in the course of the past fifty years and on the first three occasions they shifted to completely different areas of planting and hunting land. With each shift they have acquired some new land rights and lost others. In no case have they acquired all rights to the lands they moved onto and in no case have they lost all rights to the lands they left.

(1) Map held by National Mapping office entitled, "Land Tenure in the Ihase'embo Native District, Orokaiva, Northern District" prepared by W.A. McGrath 7.4.1959.

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

361
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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

361
[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male
361 members of a clan lived together with their
614 wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement
361 westward along the beach continued until about 1930. People were encouraged to move by the
[651] increasing effectiveness of Government control
[799] and by the establishment at Gona Mission of a school and hospital staffed by Europeans.

[P.12-8]

829 I thought at first that this representation of Orokaiva history
●173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

758 759 [653] During the time I was at Hohorita, there was no local medical service because the officer appointed by the Health Department was a Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

653 In Sivepe, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the [731] culture heroes. When I did, in a very innocent way, express my

173 astonishment about this kind of story, I was told in explanation that
731 at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an
178 important aspect of the modern Sangara self-group image. In the eruption,
731 Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces
[595] together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial
[764] had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

184 In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

622 At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the Ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain. [775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to that contention. As against this there is the testimony of missionaries (Toulin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington [776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

● [174] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

823 collection of vernacular texts written by a young man from Kiorota
793 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Hohorita and belonging to the Sangara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kanekeri, "The Separation of Sumbiripa." This Sangara version is notably the richest in mythological content.

● [174] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepe version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

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The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

from the three books of memoirs written by Monckton, who was resident magistrate in the district until his immoderate punitive expeditions led to his being eased out of the service in 1907. His most memorable achievement was the building of a road from Buna through Orokaiva country to Kokoda, near the goldfields. This road, slightly modernised, is still the main line of communication in the Northern District today. By the time it was built (1904), the sanguinary battles between Monckton and the Dobodura and others had taken place, so government patrols were treated with much circumspection. Nonetheless the tribes around Mount Lamington were still 'fighting like Kilkenny cats' (Monckton 1922: 142). Monckton's comments on the road are interesting.

> Yodda Road is tabu to the tribes and is traversed in perfect safety by single white men and their unarmed carriers. Never since I broke the Dobudura and Sangara has there ever been a theft upon it. It is a sanctuary for any and everyone; the wildest tribes only visit it in peace to trade food and goods to passing travellers. They rather like it, as small parties of hostile tribes can move freely about on it in safety with their women and children. (1934:41)

While the road was being built 'no hostilities took place between my working parties and the local inhabitants' (*ibid.* 63). It was thus described not only by Monckton, but also by Lieutenant-Governor Murray who wrote:

> The Wasida and Sangara have been particularly active in forming markets along the road which leads from Buna Bay to the Yodda Goldfield, and in supplying carriers with taro and other food in exchange for articles of trade, such as tobacco and glass bottles, which are much prized for the manufacture of razors. (1912:105)

The Protectorate of British New Guinea became Australian territory by the passing of the Papua Act 1905 by the Commonwealth Government of Australia. The new administration adopted a policy of peaceful penetration and the Monckton type of massacres were not repeated. Nonetheless, these early excesses are now forever part of Orokavia history. In the period that followed Papua presented 'in many ways an example of enlightened rule' (Mair 1948: Ch. III). Many measures of social and economic native development were introduced, though these invariably took the form of 'native regulations', for the breach of which a penalty was attached. The principle of coercion was applied over a remarkably wide and ever widening field.

From the days of McGregor, local control was in the hands of 'village constables, paid servants of the Crown. They were intermediaries between government and people, chosen by European officers.' From 1925 onwards, one or more 'village councillors' were appointed alongside the village constable. These were not paid servants of the Crown but were intended 'to be the representatives of native opinion'. In the Northern District I found they had generally been regarded as constables' assistants or subordinates. No indigenous officials had any judicial powers, as Murray felt such powers would lead to corruption.

In the period of Murray's rule (1907–40), the government's basic objective was to turn the Papuan into a keen and efficient indentured plantation worker. In that role, he was assiduously protected by measures which effectively

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

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THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this

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time until the outbreak of World War II, Yega men began leaving their villages to work

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture used to be rudimentary in comparison to their precise and detailed attention to
177 tubers, especially taro. The Australian authorities had hardly established
473 themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*aura*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251

1971
173
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966

(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pamba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal trade, though small in volume, was politically important in that it provided a
438 motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

177 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of produc-
511 tion.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

from the three books of memoirs written by Monckton, who was resident magistrate in the district until his immoderate punitive expeditions led to his being eased out of the service in 1907. His most memorable achievement was the building of a road from Buna through Orokaiva country to Kokoda, near the goldfields. This road, slightly modernised, is still the main line of communication in the Northern District today. By the time it was built (1904), the sanguinary battles between Monckton and the Dobodura and others had taken place, so government patrols were treated with much circumspection. Nonetheless the tribes around Mount Lamington were still 'fighting like Kilkenny cats' (Monckton 1922: 142). Monckton's comments on the road are interesting.

> Yodda Road is tabu to the tribes and is traversed in perfect safety by single white men and their unarmed carriers. Never since I broke the Dobudura and Sangara has there ever been a theft upon it. It is a sanctuary for any and everyone; the wildest tribes only visit it in peace to trade food and goods to passing travellers. They rather like it, as small parties of hostile tribes can move freely about on it in safety with their women and children. (1934:41)

While the road was being built 'no hostilities took place between my working parties and the local inhabitants' (*ibid.* 63). It was thus described not only by Monckton, but also by Lieutenant-Governor Murray who wrote:

> The Wasida and Sangara have been particularly active in forming markets along the road which leads from Buna Bay to the Yodda Goldfield, and in supplying carriers with taro and other food in exchange for articles of trade, such as tobacco and glass bottles, which are much prized for the manufacture of razors. (1912:105)

The Protectorate of British New Guinea became Australian territory by the passing of the Papua Act 1905 by the Commonwealth Government of Australia. The new administration adopted a policy of peaceful penetration and the Monckton type of massacres were not repeated. Nonetheless, these early excesses are now forever part of Orokaiva history. In the period that followed Papua presented 'in many ways an example of enlightened rule' (Mair 1948: Ch. III). Many measures of social and economic native development were introduced, though these invariably took the form of 'native regulations', for the breach of which a penalty was attached. The principle of coercion was applied over a remarkably wide and ever widening field.

From the days of McGregor, local control was in the hands of 'village constables, paid servants of the Crown. They were intermediaries between government and people, chosen by European officers.' From 1925 onwards, one or more 'village councillors' were appointed alongside the village constable. These were not paid servants of the Crown but were intended 'to be the representatives of native opinion'. In the Northern District I found they had generally been regarded as constables' assistants or subordinates. No indigenous officials had any judicial powers, as Murray felt such powers would lead to corruption.

In the period of Murray's rule (1907–40), the government's basic objective was to turn the Papuan into a keen and efficient indentured plantation worker. In that role, he was assiduously protected by measures which effectively

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OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

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OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

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OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

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Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

648 the Australian rulers, although they also know that so far the difference is not great.

177 Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

101 I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by
105 Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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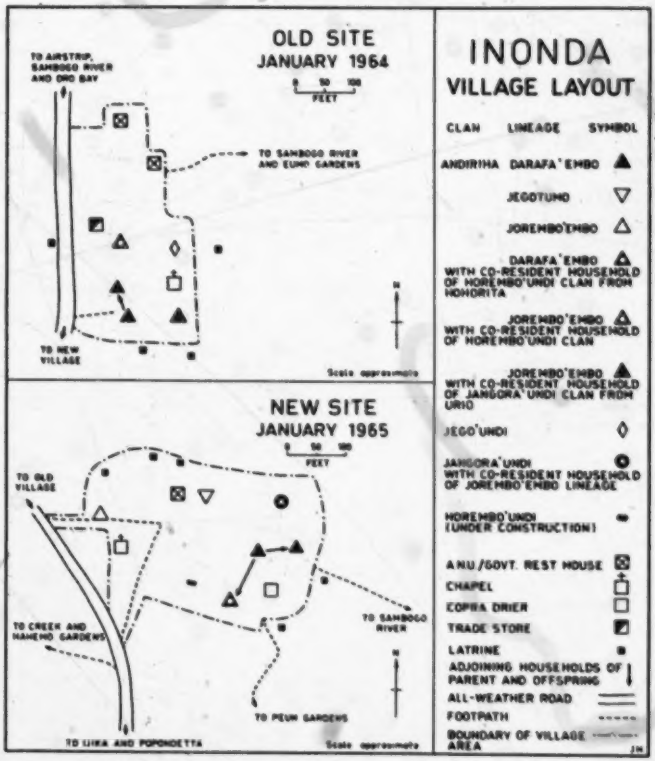


Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .

In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.
829 Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
[123] Christ, or are there other *dema* figures as well to whom these gifts are ascribed? Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

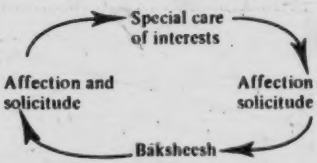
461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total work output of the worker for the period he is on the job. The Orokaiva,
437 however, regards all the work he does as part of a social relationship with the
177 person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de l'individualité du donateur.*' It rests on a notion that both worker and
177

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

employer give something in excess of their contractual obligation. These services and gifts over and above the formal contract are a form of social exchange. Both parties seem to be expressing affection and solicitude for the other. The worker does this by special care for his employer's interests; the employer does it by 'baksheesh'. The latter are never just extra handouts or cast-offs, though these may also be given. They are usually responses to appeals by the worker who describes an emergency that has arisen for which he requires some object of usually quite limited value: old batteries, a little kerosene, etc. It is the employer's solicitude in response to a claim which gives these objects their special value (though, of course, they have some monetary value as well). This social exchange can be expressed in the following diagram:

MODEL 6



This model represents the ideal norm of the relationship, as seen by the Orokaiva. He is well aware that the reality often falls far short of the ideal norm: not all employers show affection and solicitude. It is, however, a more serious flaw of the model that the white employer would totally reject it; his ideal norm of the employer-employee relationship is a very different one that does not involve social exchange (or baksheesh) at all. There is, in fact, a conflict of ideal norms between employer and employee. The actual arrangements on the plantations, which I have briefly sketched, are a sort of compromise or accommodation between the two conflicting concepts of employment: the employee accepts the fact that baksheesh is usually rather unwillingly and rudely handed over, as being a regrettable white man's custom; and the employer somehow makes room for a minimum of baksheesh on his balance sheet.

The fact that the conflict of values remains unresolved in this relationship does not vitally threaten plantation development, but similar conflicts are not so easily sidestepped in the Orokaiva's relationship with government and the mission. Neither community development nor religious conversion will be successful without some ideological commitment on the part of the receivers of the message. Obvious though this statement is, it is worth while to spell out its implications here, as it applies to the implementation of government policy.

Policy is formulated in Port Moresby and promulgated by the Administrator in the form of ordinances and regulations. Instructions on the enforcement of these are prepared by the Department of District Administration in Port Moresby and interpreted, in the light of local conditions, by the Department's officers in Popondetta, the administrative centre of the Northern District. But how can these ordinances and regulations be enforced in the jungle by a very limited number of patrol officers? Until 1956, a rather simple procedure was used. The patrol officers appointed a large number of suitable Orokaiva as village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

constables, instructed them to report any trouble, visited the villages, looked for evidence of non-compliance with instructions, punished delinquents, left further instructions with the village constable and threatened further punishment. The trouble with this procedure was that the changes it could produce were of rather limited scope. All the Orokaiva needed to do to keep the patrol officer satisfied was to attend to things that could be seen on a visit (the state of the roads, houses, latrines, the grass in the villages, the quota of obligatory rubber trees, etc.) and to avoid the kind of trouble the village constable could not help reporting (murders, serious dissensions).

Social and economic development, however, depends on the communication of ideas, on encouraging regular schooling, use of medical facilities, cash-cropping, the development of markets, participation in local government, preparing the young for careers outside the district, encouraging capital formation and entrepreneurship, improvement of agricultural techniques, land titles, and so on. In the 1950s, when the government became deeply interested in these objectives, it created local government councils, abolished village constables, and rather forcefully changed its emphasis from the enforcement of compliance to the inducement of collaboration. Some of the Australian officers told me they found this shift rather frightening: if there was no jail for non-compliance, how could one be sure that the Orokaiva would take any notice? On the other hand, Orokaiva conservatives found the shift in policy frightening for the opposite reason: as they told me, the village constables left Orokaiva social life virtually intact, except that occasionally someone would be sent to jail for a while – a mere ripple on the surface of community affairs. But since the government councils were established, and the councillors came round regularly making long speeches, and since the new institutions listed above had actually been demonstrated to be useful, the foundations of the old way of life were beginning to be undermined.

With the help of the councillors, the government's ideas were certainly being communicated, but hardly ever by the government's own officers.[4] The only white officers who regularly visit villagers are young, inexperienced patrol officers, dependent on interpreters. Speech-making is only a minor part of their role and not the most successful. All the councillors I have heard, however, are master propagandists. As the government's aim is clearly the communication of ideas, it would be hard to find a more efficient method than the present one, where the government communicates to the councillors and leaves the latter to do the rest.

An interesting and somewhat unusual exchange cycle results from these transactions. The exchange partners are the government and groups of Orokaiva villagers. The objects of exchange are information (emanating from the government) and respectful attention (on the part of the villagers). I use this term 'respectful attention' as the nearest translation of Orokaiva *ingari* which means 'to hear', 'to understand', 'to follow advice' – and comes closer than any other word in the Orokaiva vocabulary to the notion of obedience and compliance. The exchange cycle may be expressed in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 7

The elements of mediation are entirely indispensable in this relationship. Unless there is development activity, the government will feel that the relationship has broken down. Unless the councillors intervene, the government's information cannot be communicated.

Both the villagers and the government find this exchange cycle highly precarious. It is precarious for the villagers because social exchange, for the Orokaiva, implies a state of competition between the partners. It is unprofitable to engage in social exchange with a partner unless one can hope to equal him (and even better him) in wealth and power. This desire to equal (and defeat) the Europeans competitively is an ambition of which informants spoke to me occasionally when I came to know them well. It was quite clear to the Orokaiva that they could never achieve this objective by growing coffee on small village plots. Hence, they could not regard the activity advocated by the government as being worth engaging in for its own sake. The question facing them was: will this activity serve our ultimate end of achieving equivalence or victory? The term 'development activity', as used in model 7 implies that it is thought to serve this ultimate end.

I demonstrated in the previous chapter that all elements of mediation are essentially magical. The Orokaiva similarly regard development activity as magical. In response to this notion, government officers sometimes evolve rules of behaviour that look remarkably like magical formulae. One officer in the Northern District invented a regular weekly calendar which he thought the Orokaiva should follow. Certain days of the week should be set aside for coffee growing, others for growing and marketing extra garden crops, others for cleaning and improving the village, and so on. I heard the officer proclaim this calendar; later, I heard a councillor proclaim it in Sivepe village. It was listened to with respectful attention, but afterwards ridiculed by the village men. The formula was rejected because it was thought to be useless. There was, of course, a plethora of such formulae circulating as many officers thought up their own, and most officers were rapidly transferred from one job to another. It was natural, therefore, for the Orokaiva to become selective in the formulae they adopted. Also, experience showed them that the formulae did not always work.

The difference between this modern magic and the traditional varieties lies in the greater uncertainty of the prescription. The Orokaiva habitually use an experimental approach to magic: if one medicine does not work, then try another. But all traditional medicine has at least an impeccable source: it was given by the ancestors. The magic of 'development' (money, Western technology, Western power) was, in Orokaiva belief, ultimately derived from Jesus

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 Christ and perhaps other supreme sources of which they have no knowledge, but
657 these ultimate sources mostly seem inaccessible to the Orokaiva; the people
[789] know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidently, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 It may thus be said without hyperbole that community development among
657 the Orokaiva has a mythological charter – namely, the Christian religion as the
797 Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 But the second mediating element in this relationship is the councillors,
657 through whom the government's information must pass to reach the people.
623 They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is
[191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some
[554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[3] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8

Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
[778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman, 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

E[illegible] of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.

3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.

4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.

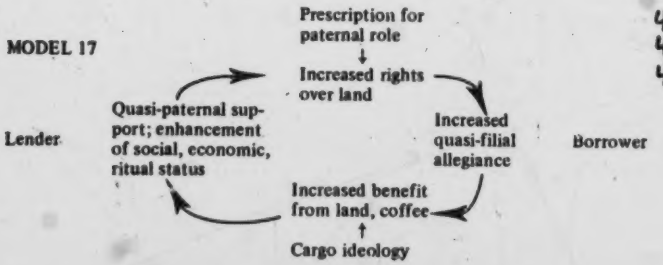
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.

6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).

7. Interview with Bishop Hand, January 1967.

[p.82 is blank]

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
[428] paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 528 616 Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more [177] than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised [361] the tendency to dual organisation.

361 178 614 583 First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

614 621 166 616 In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

621 614 616 I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or [582] village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange alone, nor by rules of complex generalised exchange alone. If the Orokaiva had only restricted exchange, they would not be periodically forced to look for new groups with whom to intermarry. If the Orokaiva had only complex exchange (as Meggitt seems to believe is the case for all people of the New Guinea Highlands, viz. the Introduction to Glasse and Meggitt, 1969), then there would be no explanation for the various forms of preferential marriage that are still practised and the tendency to establish forms of dual organisation.

From one viewpoint we may say that the Orokaiva system is '*une sorte de faille de l'échange restreint*', because the Orokaiva are forever trying to re-establish such a system. From another viewpoint it is true that, having entered into new alliances and thus moved in the direction of a system of generalised exchange, they always attempt as soon as possible to convert the new alliance into a moiety system. The fear of setting up alliances with new groups is still very strong today, in spite of wide experience with travel among foreign tribes when men take up wage employment outside their own district. They still marry wives preferably from their own village, or one of the villages with which reciprocal arrangements exist. There was not a single current Sivepe marriage that fell outside this pattern.

It is certainly curious that the chief effect of white contact upon the marriage system was to emphasise the tendency to the formation of moieties through enforced village consolidation. One would have expected that greater physical security, greater mobility and the contacts brought about through labour migration would have widened rather than narrowed the men's matrimonial universe. One imagines that processes of social and economic development must ultimately make an ideology of restricted exchange obsolete. Meanwhile, however, we observe mainly a movement in the opposite direction. Not only has government pressure unintentionally increased the opportunities for village endogamy, and moiety formation, but the combined teaching of government and mission has deprecated elopement marriages, and penalised the showing of hostility between affines. The war expeditions which led indirectly to so many marriages were stopped. The concern with pacification on the part of the authorities led to an even greater preference than previously for 'safe' marriages and therefore a narrowing of the marriage universe. My records show more marriages with partners from distant villages prior to 1915 than can be found over the last generation. It is therefore complex generalised rather than restricted exchange that was (unintentionally) discouraged.

10 *Conclusions*

This examination of the Orokaiva marriage system indicates that membership in corporate groups (the *hae*, the local clan group and the village) all have a significant influence on marriage choice, not only negatively, by prohibiting certain partners under a rule of exogamy, but also positively, by pursuing from time to time the establishment of forms of dual organisation. Certainly every individual is more or less free to choose between the two existing systems – direct exchange and complex generalised exchange. There is, however, a constant feature on the level of group relationships, namely the existence of reciprocating pairs of groups. Another constant feature is the temporary nature of these

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER XI

EPILOGUE

I have not presented in this work all the empirical facts that may be elucidated with the proposed model of Orokaiva society. I have had space to discuss only a small minority of the myths which are at my disposal but there are a number of others that are more readily understood in the light of my analysis of social structure. The description I have given of corporate activities in patrilineal descent groups has been rather summary, even though much additional evidence could have been marshalled presenting them as competitive segments of a wider non-agnatic collectivity. The rather interesting institution of hereditary friendship, between both men and women, has not been described although this forms a not unimportant part of the total exchange network. Indeed, I have not reported the exchange network in much detail at all, largely because this has already been done in my earlier work entitled *Cultural Consequences of a Volcanic Eruption Experienced by the Mount Lamington Orokaiva* (1969).

Many of the facts reported in this earlier work can be more adequately explained in the light of the analysis offered in the present one. Orokaiva reactions to the eruption, for instance, are not easy to account for unless we can explain the powerful driving force of the *iji eha* ideology discussed in Chapter IV above. The earlier work also did not elucidate the relationship between Orokaiva and the white man. It was made clear that this relationship is an ambivalent one, positive when the Orokaiva leader plays the roles of councillor, village constable or 'committee', but negative when he plays the role of organiser of a co-operative or of transmitter of messages with a millenarian import. Although these roles were described in detail, I perhaps did not make it clear enough that they are often played by the same individuals at different times, or at the same time, and that even if they are played by different individuals, these are not necessarily thereby placed in a position of conflict between one another.

We can, however, easily account for this ambivalence if we remember that social exchange between Orokaiva and white authorities is subject to the laws of the exchange system: there is an alternation between positive and negative cycles. Some members of an Orokaiva group may be in a positive cycle of reciprocity with white authority while others are in a negative one. This does not necessarily mean that the members of the Orokaiva group are in conflict with each other. The same members of a community may support both a co-operative to which the administration objects, and a councillor who acts as an administrative mouthpiece.

The facts are that the administration provides valuable benefits (and the mission likewise) so that there is a sound basis for cycles of positive reciprocity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

654 On the other hand grievances inevitably arise and these are hard to resolve as
177 the Orokaiva and the white man rarely reside in the same village, rarely eat together and very rarely intermarry. Thus the resolution of conflict is never easy as none of the traditional mechanisms is available for shifting a social relationship into a cycle of positive reciprocity. In these circumstances the Orokaiva requires channels for expressing both positive and negative reciprocity. He therefore has both. The importance he attaches to the one or to the other will necessarily fluctuate according to the changing course of events: the relative weight given to benefits received and grievances experienced at a given time.

It is a mistake to assume, as a European is easily inclined to do, that an Orokaiva is either 'friendly' or hostile to him. It would be more accurate to say that an Orokaiva is, at a given time, involved in a positive or negative exchange cycle with many *alters*, both European and Orokaiva. He usually does not have a commitment to these *alters* that goes beyond the history of the social exchange conducted with them. He assumes that if a European values the continuation of a positive cycle, he will provide sufficient benefits to maintain it. If an Orokaiva is unsatisfied with the balance of exchanges he will usually make no secret of his feelings. If a European ignores these feelings one may expect a negative cycle to begin.

My method may thus have some relevance for applied anthropology. It is unwise, in a situation such as the Orokaiva one, to ignore either the millennial-type leadership or the supporters of the administration. Councillors and similar functionaries act as bond-friends of the Europeans. Their role is non-charismatic but they can be influential as mediators in positive social exchange with the authorities. Millennial leaders tend to stand aloof from the authorities, and this, in terms of the Orokaiva system, is an expression of negative reciprocity. They are charismatic mediators in the relationship between their followers and the *dema* figure whose blessings they are endeavouring to obtain.

Now it would be wrong to suppose that the administrative Orokaiva mediators are concerned with socio-economic development whereas the supporters of a millenial movement or crypto-millennial co-operative[1] are not. I have shown in Chapter IV that the ideology of the *iji eha*, under which we may classify all development ideology of the Orokaiva, whether government-sponsored or not, is based on the assumption that the blessings of the modern age derive from a *dema*-like conceptualisation of Jesus Christ. The two types of leaders differ only in the channel of mediation between the people and the *dema*. For the councillor, the blessings are channeled through the government or mission authorities; for the messianic leader they are channelled differently.

P. Lawrence (1963) takes the view that millennial movements are a 'hindrance' rather than a 'help' to economic development in Papua and New Guinea. If the argument I put forward in the preceding paragraph is correct, the Orokaiva view all economic development as ultimately religious, whether it is channelled through a millennarian leader or the government. Lawrence's question then reduces itself to a narrower one: whether a millennarian leader is a 'help or a hindrance' in mediating the ideology of the new age. This question, however, may not be relevant to Orokaiva realities: to the extent that negative reciprocity between Papuan and white is prevalent, the millennarian leader will

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

be valuable as mediator with the *dema* of the *iji eha*. In 1966–7, millennarian leadership among the Orokaiva was relatively unimportant and thus may be ascribed to a relatively high degree of positive reciprocity between Orokaiva and the white authorities. Among the more important benefits received by the Orokaiva were: the success of cash cropping, especially in coffee, the rapid extension of education, health and other valued services, and the rising influence of the Higaturu Local Government Council which was viewed as a gift from the government to the Orokaiva.

A significant growth of millenarianism would therefore indicate a growing emphasis on negative reciprocity. How should it be dealt with? According to the Orokaiva ethos, the authorities should make gifts or concessions to expiate their unsatisfactory performance. Repression of the movement would only perpetuate the negative cycle. Far from regarding the movements as a hindrance to development, I would regard them as a political process: consciously or unconsciously, they are means of bringing pressure to bear upon the authorities. The ultimate pressure is obtaining the benefits of development.

Knowledge of the rules of Orokaiva social exchange may help us to understand not only social but also political and religious patterns because exchange, in the sense in which I have used the term, represents a world view and penetrates a wide range of institutions and situations. If my method is applied to the analysis of millenarian phenomena, those phenomena would need to be described as essentially a mode of pursuing *ivo*. Now I have shown (Chapter VII) that *ivo*, whether under its aspect of expiation or communion, is fundamentally a magical device for the mediation of social relationships. It would follow from this argument that millenarianism has as its ultimate aim the management of social relations with white power bearers. This manipulative aspect of millenarianism is brought out clearly by Burridge (1960) who presents each new phase of the movements in Tangu as an attempt to establish more effective social relations with white powers. I cannot attempt here to prove with any finality that millennial movements are objects of mediation in a negative exchange cycle and that this would explain all their social, economic, political and religous characteristics. My only purpose is to suggest that the method proposed in this work can generate fresh and perhaps interesting hypotheses in many subjects of current interest in Melanesian ethnography.

Throughout this work, I have been concerned to demonstrate a method rather than to expound a theory. If, in conclusion, I shall now make a few theoretical remarks, this is to acknowledge debts rather than to develop new propositions. My debt to Lévi-Strauss is so obvious that little needs to be said about it. I have utilised the methods advocated in virtually all his major works. My use of the concepts of exchange and reciprocity as the basic principles of my analysis is due to the inspiration of Lévi-Struass.

Yet Lévi-Strauss' work has less to say about the methods of ethnography than about the structural analysis that must follow after the ethnography is completed. The profound implications of his thought for the practice of ethnography remain to be elaborated. Here a number of his followers have made valuable contributions which I have found very helpful. I shall confine myself here to mentioning a few examples. Dumont has shown, by practical demonstration, that in societies where positive marriage rules exist, affinity is

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4.10.1898 (quoted in Healy 1962 : 84).

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quantities in some areas.(1)

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After the turn of the century less emphasis was given to the policy of expanding indigenous plantings of cash crops and instead Papuans were persuaded to work as labour on European plantations. In 1906 the Lieutenant-Governor stated that not only was staff inadequate to enforce the 1894 regulation, but that where it was enforced the resultant income attracted traders whom he felt to be a bad influence on the Papuan people. Employment on European plantations, on the other hand, was considered to be beneficial.(2) This policy remained until after the first world war, though some Resident Magistrates also applied the regulations in order to extend native plantings.

(1) For a more detailed study of the application of these regulations see Miles 1956 : 319-23.

(2) Territory of Papua Annual Report (hereafter abbreviated to P.A.R.) 1905-6 : 9.

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the or-
[492] dinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the
[493] port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol". (1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, pro-
[651] ducers were required to deliver all produce to the government depots at Higaturu, Popondetta and Buna. (2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

Post-war community plantations (1945 - 62)

Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth considerably more than pre-war rates. However the military administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.[1] Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

241 65 [466] [625] [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Appendix F

The Orokaiva villager's experience of cash cropping

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, 366 originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe [432] people in our sample sell vegetables there regularly but seldom [438] buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 We could not complete this introductory sketch of local 648 facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had been close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the Orokaiva were 'drawn in as helpers, willingly or unwillingly, on [121] both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting [161] of local men for subsequent phases of the war elsewhere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

time the process of readjustment and restoration was still a major question demanding attention. A few years later the third misfortune occurred.

The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

After the war, compensation was paid for property of the villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

For our investigations, Sivepe was chosen from the villages in the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

The interest which governed our own selection of a sample of manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

614 clan distribution can be obtained from the following summary of diverse information from the mountain Orokaiva and the Aiga.

621 The people grouped under the names Isivita 1 and 2 and
614 Sasembata 1 and 2 numbered more than 1,600 in 1948 and occupied 44 villages. By the time of the eruption in 1951 the number of villages had been reduced to 27 (see Plant 1951: Appendix 3) and 40 clans had branches in one or more of them - there were at least 17 clan branches in villages other than these, representing 6 of the 40 clans. Eleven of the Isivita and Sasembata villages consisted only of members of 1 clan, although only 3 of these villages constituted a whole clan.

Williams (1928:124; 1930:101) suggests that a periodic increase in the 'multiplicity of small clans', caused by subdivision, is only 'in part neutralized by the dying out of older clans'. He says that there is a marked consistency in clan organization throughout the Orokaiva area (1925:406)[1] and in 1923 the generalisation that 'local and lineal groups seem to be largely coincident' was true of the Jegasi-Sarahu, i.e., the Wasida group of villages (W.10, 31). In this context he adds that this pattern was altered somewhat by the dispersal caused by a special factor: an attack by the first government patrol on Wasida and neighbouring villages. He does not record the relevant clan branches present in local groups other than the 15 Jegasi-Sarahu villages of the tribe, but 5 of the 7 clans listed are seen to be represented in more than one village. However, only 2 of the 15 villages contained 2 clan branches. The average village consisted of 6 houses (normally nuclear families) and a single-boys' house (W.1), perhaps 25 people in all.

[648] [177] [36]

Data collected in 1924 among the Aiga show that there were 37 clans among the 50 villages of the tribe, with an average of about 35 members, or perhaps 'a dozen families', in each clan (Williams 1930:7, 101; 1925:418). Williams says that the 'normal', 'typical' or 'original' residential group was the 'clan-village' - clan and village were coextensive (1925:407; 1928:124; 1930:103, 310; and 107, 131) - but notes that in the larger villages there were 'often two clans or more' (1925:407). In fact, 12 of the 24 clans listed in 36 of the Aiga villages had 2 or more branches there (O.19, 20). Yet Williams might then have argued that in such instances fission would soon be completed and 'the normal conditions restored, viz. the clan locally unified and in

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[1] Cf. Rasy 1953:110: Williams' information on the Aiga, Binandele and Tain Dawure tribes reveals 'a social organization practically identical with that of the Wasida people'; see also Williams 1930:7.

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

●177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to [721] attack government parties,[3] peace was secure within 4 years. Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes [166] under the novel conditions brought about by the arrival of the Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

In about 50 years preceding the establishment of their present
166 village the groups now represented in Sivepe had between them
361 been involved in shifts of residence between a series of 14
177 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or
[621] established independent villages and worked land of their own in the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(1) Migration 1900-50: The Bebehupa moved from Simbehata to Koregombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Mahihita nearby.

[657] In 1950 the Administration instructed the Bebehupa of Korinasusu and Mahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

A, [See Category 102, p. 40--Analyst]

731 361 food from their abandoned gardens which they found in good condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

613 361 [578] [177] It was not long, however, before the Timumu people became involved in a protracted dispute with members of Kongahambo village (a new resettlement concentration near Sasembata), over garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

Meanwhile the Bebehupa had returned after the eruption to [754] Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

614 361 (iii) The distribution of other clan branches. One Jegase clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Nahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

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[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

166 [342] Individual mobility is still high, as we have already noted. Mobility is facilitated by the fact that material for housing - wange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

36 [621] The patrol of 1948 which found this area 'literally a mass of small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

36 178 621 When people began to leave the evacuation camp there was a spontaneous trend, which was encouraged by officials, towards building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

[177] Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

621 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

249 A new marketing scheme was devised after 1946. Any villagers
177 who wished to tap their stands were provided with a tapping gouge
and spout, anti-coagulate, treesaal and latex bucket by the same
European planter. The tapper brought latex to the factory, was
[434] given a receipt and paid at the end of the week according to the
weight of the dry rubber of the latex brought in. This system
brought about a decline in tapping standards resulting in lower
net cash returns for the villagers and seems to have been part of
the background to their lack of enthusiasm for the lease noted by
patrol staff in 1948.

433 In mid-1949 a report from the Popondetta District Office stated
249 that all privately owned rubber areas were on the verge of closing
down; production costs were high and market prices had fallen
considerably.[1] The advent of the 'price-boom' later, caused by
the Korean war, coincided with the eruption of Mt Lamington and
the evacuation of the villages, and consequent cessation of
production.

[435] By 1954 when attempts to organise systematic production were
again resumed the market price had dropped to 5/6 d. per pound;
the planter proposed to issue daily chits for latex bought and to
pay cash at the end of every week. He offered the villagers, and
the Administration agreed to, a price of a shilling per pound dry
rubber content for all grades of rubber accepted. A system was
organized whereby he provided for the transportation of latex by
road from collecting points.[2] He arranged for the tapping of
alternate 'sections' every 4 to 5 weeks; the time interval was
dependent upon the density of the latex offered. Kongohambo was
the collecting point for one 'section' consisting of stands
between Kendata and Binduta; Koropata was the collecting point
for another section. Only 70 villages were still supplying latex,
mainly because of the accessibility. A report on native agricul-
ture in January 1956 noted that villagers had sold 3,600 lb. (dry
weight) of rubber for £180 in the previous 6 months. This was
produced from only 10 stands 'near Awala' and it was felt that
[435] other existing stands would probably not be brought into produc-
tion until roads were improved. By July 1958 the number of stands
had not increased but 6,000 lb. (dry weight) of rubber was produced
and sold for £300 in 5 months.

In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

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1 The report seems inaccurate where it says that the fall in price led the lessee to terminate production. In fact production continued.

2 Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

178 361 166 241 individual mobility among the mountain Orokaiva. We especially doubt the generalization that the introduction of tree crops induces the fragmentation of villages into small 'bush settlements' which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups hold proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Norton (1962:12) argues that new practices in the transmission [241] of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant [178] change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial [177] agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 614 Norton expresses a view widely held among government officers[3] that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

Appendix B

The local co-operative venture

454 474 The 3 clan branches in Sivepe have contributed to 2 joint savings accounts; one is shared by Seho and Jegase members and the other belongs to Timumu clansmen. These accounts were opened as part of a scheme involving several neighbouring villages.

In 1960 an officer of the Department of District Administration had recommended that the people in Sivepe and other villages consider opening savings accounts but they claim it was their own wish to pool their money for savings certificates in order to invest in some form of local amenity for which they had for some time been looking to the local government council.

•[m] The members of 2 clan branches at Hamburata village were the first to collect contributions under the leadership of an ex-medical orderly with 6 years' mission education, and others quickly followed their example. Soon most members of 12 clans in 7 villages, Hamburata, Sasembata, Torogata, Sivepe, Singi, Duve and Garombi had deposited money in a 'clan' account and scattered kinsmen in at least 4 other villages had contributed. Either following advice that a given figure should be the target for the first purchase of savings certificates or following an initial example, each of the 12 clans claimed to have collected £30 at first. Ten of them made a second collection of smaller amounts.

In June 1961 the Seho and Jegase people collected £30 and, as the others had already done, bought savings certificates to mature in 5 years. In July another £26 was collected and deposited but no further money has been collected since then.

Once the money had been collected advice was sought from the District Office as to how it might be invested. The plan eventually formulated was that the savings of all clans should be used to establish a trade store and later to acquire a vehicle to supply it. They were advised to arrange to have only an experienced man to manage the enterprise in its first stages and a Sasembata mission

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

(a) Initial contact

177 The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

714 177 178 [49] [438] By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

241 242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some
[933] 1,000 cocoa trees were also planted in the pre-war period, although
only the copra and coffee were worked during this time. All com-
[177] mercial agriculture ceased with the Japanese invasion in the second
world war and was again interrupted by the eruption of Mt Lamington
[131] in 1951. The principle of compulsion was withdrawn in the same year
and community enterprise largely ceased in the mid 1950s with an
[466] increasing trend towards individual plantings. The whole scheme
was characterised not only by low returns to labour, delays in pay-
ment,[2] frequent disputed claims to plantings and serious problems
in work organisation, but also by a definite feeling of resentment
on the part of the indigenous participants.

(c) War and natural disaster

177 The Orokaiva view of the government was no doubt influenced by
[131] the second world war, which led to the Japanese occupation of the
Northern District from July 1942 to January 1943, and by the erup-
tion of Mt Lamington in January 1951, causing the death of over
4,000 people and the destruction of the district headquarters and
staff at Higaturu.

657 The impact of the Japanese invasion and subsequent Allied re-
advance has never been assessed but must be considered profound.
All Australian administration ceased and, when resumed, was vested
[466] in the Australian New Guinea Administrative Unit (ANGAU), a military
authority. Several thousand men co-opted as carriers by both
Australians and Japanese worked under very arduous conditions.[3]
Since the Orokaiva lay athwart the main Buna-Kokoda route which was
the scene of fierce fighting, many villagers retreated into the
surrounding hills where they were obliged to subsist on very
[687] limited resources because of the absence of much of the potential
labour force.[4] Others sided with the Japanese or profited by the
[541] power vacuum to attack or betray Allied troops and civilians or to
assert their authority over other Orokaiva. On resumption of
Australian rule, twenty-two men were sentenced for such deeds by a
military tribunal and publicly hanged at Sangara and Higaturu.[5]

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1 An estimated 111,000 trees at a spacing of 10 by 10 feet.

2 As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

3 For details of terms for the conscription and conditions, see McCarthy 1959:116, 132.

[165] 4 A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

5 A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

[73] [433] than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

[178] [171] The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

[177] [177] [65] (iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. Many of the most talented Orokaiva are serving outside the region in government, missions and commerce. [166]

[4] Belshaw (1951:248) makes a similar allusion.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

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[1] In the past they sometimes lasted several days.

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Table 4:5

Rivuga: non-traditional household property, November 1964

(Figures represent numbers of items)

Household no.	1	2	3	5	6	9	10	11	13	14	15
No. of adults	3	3	2	3	1	2	2	3	2	3	2
Tools and equipment:											
Axe	2	2	2	2	1	2	2	2	1	1	2
Bush knife	3	4	3	4	2	2	2	3	3	2	3
Grass knife	2	1	1	1	-	1	-	3	2	2	2
Shovel/spade	2	-	-	1	-	-	-	2	1	-	1
Hoe	-	-	1	-	-	-	-	-	-	-	-
Fork	-	-	1	-	-	-	-	-	-	-	-
Pocket knife	2	4	1	2	2	2	2	3	1	2	1
Saw	-	-	1	-	-	1	-	-	-	-	1
File	-	1	1	1	-	1	-	1	-	-	-
Hammer	-	-	-	-	-	-	2	3	1	-	1
Adze	-	1	-	-	-	-	-	-	-	-	-
Mule	-	-	-	-	1	-	-	-	-	-	-
Spanner	-	-	-	-	-	1 set	-	-	-	-	-
Shotgun	-	1	-	-	-	-	-	-	-	-	1
Sack	2	-	-	3	-	1	-	-	-	2	-
Household:											
Cutlery	21	13	2	11	2	9	2	24	11	4	4
Cooking pot	3	5	1	1	-	4	1	4	4	2	3
Dish/plate	9	20	9	10	-	8	3	12	15	10	13
Mug/glass	2	9	1	5	-	4	-	5	2	5	4
Teapot	-	-	-	-	-	-	-	1	1	-	-
Needle and thread	-	-	-	-	-	Yes	-	-	Yes	Yes	-
Hurricane lamp	2	1	1	1	-	1	-	-	2	1	1
Torch	-	-	-	2	-	-	-	-	-	1	-
Radio	-	1	-	-	-	-	-	-	-	-	-
Personal:											
Blanket	2	3	-	-	1	4	1	3	3	1	1
Sheet	2	4	3	-	1	1	-	2	1	-	1
Pillow	-	1	-	1	-	2	-	1	1	-	-
Mosquito net	-	-	-	-	-	1	-	-	-	-	-
Sleeping-mat	1	3	-	2	-	-	-	1	2	2	-
Towel	3	7	1	1	1	3	-	1	1	1	-
Groundsheet cape	-	-	-	1	-	-	-	1	-	-	-
Suitcase/kitbag/pack	4	4	2	-	-	2	1	5	4	1	3
Laplap	9	2	1	-	-	2	11	3	5	2	1
Shirt/blouse/dress	5	4	3	4	2	2	1	7	6	2	2
Trousers/shorts/skirt	9	11	3	3	1	7	-	13	5	5	4
Underwear	-	2	-	-	-	-	-	1	2	1	1
Sweater/coat	-	-	-	1	-	-	-	-	1	-	1
Footwear	-	2	-	2	-	1	-	-	1	-	-
Belt	-	1	-	-	-	1	-	1	1	1	2
Handkerchief	-	-	-	-	-	-	-	-	-	1	-
Hat	-	1	-	-	-	-	-	-	-	-	-
Hair oil/powder	-	-	-	-	-	1	-	-	-	2	-
Comb/brush	-	-	-	1	-	-	-	4	-	-	-
Toothbrush	-	1*	-	-	-	-	-	-	-	-	-
Mirror	2	2	-	2	-	1	1	2	3	2	1
Scissors	-	1	-	-	-	-	-	-	-	-	-
Biro/pencil	-	2	-	-	-	-	-	5	-	-	-
Purse	-	2	-	-	-	1	-	-	1	-	-
Lighter	-	-	-	-	-	-	-	1	-	-	-
Watch	-	-	-	-	-	-	-	1	-	-	-

[621]

[177]

* Acquired during the second world war!

Notes. 1. There is also some communally-held rubber-tapping equipment (tapping tools, spouts and a bucket) in the village, provided by the owner of the local rubber factory.

2. Considerable use is made of discarded metal containers, e.g. large cans for cooking pots, screw-top tobacco tins for lime, and beaten-out drums for hearths.

454 (d) Monetary and other assets

Table 4:12 shows that the monetary assets of the village in November 1964 amounted to $166.70, or $10.40 per adult resident. In contrast with Sivepe, most (67 per cent) was invested in savings bank accounts and almost all the rest was held in cash. Only two men owned shares although householder 23 intended to buy some if those of either Oro Ltd or OCGS proved their value.

Table 4:12

Inonda: monetary assets of households, November 1964
($)

Household no:	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Total
16	12.95	16.18	10.00	-	39.13
17	3.90	-	-	-	3.90
18	0.80	-	-	-	0.80
19	-	-	-	-	-
20	1.50	36.00	-	10.00	47.50
21	3.00	20.00	-	-	23.00
23	1.07	20.00	-	-	21.07
24	11.80	19.50	-	-	31.30
Total	35.02	111.68	10.00	10.00	166.70

438 [444] In October 1963, the head of household 23 established a trade store, deriving most of his supplies on credit from Oro Ltd's wholesale store in Popondetta. His stock included tinned foodstuffs, rice, biscuits, sugar, salt, tea, soft drinks, chewing gum, cigarettes, trade tobacco, laundry soap, matches, kerosene, torch batteries, clothing, razor blades and playing cards. In addition, he obtained some goods from Chinese-owned stores where the wholesale prices, particularly for rice, were considerably lower. Store customers included people from Inonda and neighbouring villages and passers-by on the main road. Business was best between February and April 1964 when construction gangs were improving this road. By July, most of the villagers had moved to the new site and a new, better-stocked store was opened about two and a half miles away, and sales of the Inonda store began to decline. When the store-owner moved to the new site, he did not begin rebuilding the store until late in December and kept only a few goods (biscuits, tobacco and kerosene) in his house.

511 177 (e) Other household property

Table 4:13 shows the inventories of household property acquired directly or indirectly from the cash sector of the economy, including

[TEXT CONTINUED ON PAGE 63]

511
439

Table 4:13

Inuma: non-traditional household property, November 1964

Household no.	16	17	18	19	20	21	22	23	24
No. of adults	4	2	1	1	2	2	2	2	2
Tools and equipment:									
Axe	1	2	1	1	1	2	1	3	2
Bush knife	3	2	1	2	3	4	3	4	2
Grass knife	2	2	2	1	1	1	3	2	2
Spade	4	1	-	1	1	1	-	-	1
Hoe	-	1	-	-	-	-	-	-	-
Pick	-	-	-	-	-	-	-	1	1
Rake	-	-	-	-	-	1	-	-	-
Saw	-	-	-	-	1	1	1	-	1
File	1	-	-	1	-	1	1	1	2
Hammer	2	1	-	1	1	1	2	1	2
Chisel	-	1	-	-	-	-	2	1	3
Measuring tape	-	-	-	-	1	-	-	2	-
Level	-	-	-	-	-	-	-	1	1
T-square	-	-	-	-	-	-	-	-	1
Ladder	1	-	-	-	-	-	-	1	-
Swimming glass	2	3	-	-	1	1	1	-	1
Fishing line	-	-	-	-	1	-	-	1	-
Shotgun	-	-	-	-	-	-	-	1	-
Household:									
Cutlery	13	5	8	2	6	15	7	15	15
Cooking pot/kettle	12	7	4	-	5	4	4	6	5
Dish/plate	21	20	8	-	11	8	6	17	16
Mug/glass	2	3	1	-	3	-	1	7	6
Teapot	-	-	-	-	-	-	-	1	1
Pressure lamp	-	-	-	-	-	1	-	-	1
Hurricane lamp	1	1	1	1	1	1	1	1	-
Torch	1	1	-	-	1	1	1	-	1
Bucket	-	-	1	-	-	1	-	-	-
Water-drum	1	1	-	-	-	1	-	2	-
Iron	-	-	-	-	-	-	-	1	-
Broom	-	-	-	-	-	4	-	-	-
Table	-	2	-	-	1	-	-	-	1
'Stool'*	2	4	-	2	4	3	1	3	2
Tea-towel	-	-	-	-	-	-	-	2	-
Personal:									
Blanket	6	1	2	1	1	2	-	3	1
Sheet	-	2	-	-	1	-	-	1	1
Pillow	1	-	-	-	-	2	1	2	2
Mosquito net	3	2	1	2	1	1	1	3	2
Towel	-	4	-	-	-	1	-	1	1
Suitcase/box/pack	3	2	1	-	1	3	1	4	1
Laplap	-	1	-	-	-	-	1	-	2
Shirt/dress/blouse	13	4	1	3	3	13	-	11	4
Shorts/skirt	13	1	3	1	4	10	1	10	7
Underwear	-	-	-	-	-	-	-	10	-
Pullover	-	1	-	-	-	-	-	-	-
Footwear	-	-	-	-	-	2	1	3	-
Handkerchief	1	-	-	-	-	-	-	1	-
Tie	-	-	-	-	-	-	-	2	-
Comb/hairbrush	2	1	-	-	-	-	-	-	-
Scrubbing brush	-	1	-	-	-	-	-	-	-
Mirror	2	1	-	1	-	1	-	1	1
Scissors	-	2	-	-	-	2	-	1	-
Umbrella	-	-	-	-	-	1	-	-	-
Pencil	3	-	-	-	-	-	-	-	-
Watch	-	-	-	-	2	-	-	-	-

* These are old mortar-bomb cases which, inverted, serve as stools.

511 177 trade stores and wartime dumps. Most of the tools used regularly were purchased, but those in less constant use, such as picks, rakes, hammers and saws were mostly salvaged. The 'swimming glass' (goggles for fishing) is the only common piece of equipment not used in Sivepe.

[354] Inonda differs from Sivepe in household goods in that hurricane lamps are in common use, partly perhaps because kerosene is available at the trade store. More people own torches, which are often used when hunting by night. Mosquito nets also are far more common [415] in Inonda (although many are in poor condition) and this in part is due to a higher incidence of mosquitoes. Four households possess 44-gallon drums to collect rainwater.

511 [294] Several women make their own dresses and skirts and one has a flat-iron (which was not used during the survey). Laplaps are much less common in Inondd than in Sivepe.

The different environments of the two villages are illustrated by various items in Table 4:14.

Table 4:14

Inonda: household property derived from the subsistence sector

Household no.	16	17	18	19	20	21	22	23	24
Item									
Sago-beater	4	1	-	3	-	1	1	-	2
Fishing net	1	1	1	-	-	1	1	-	-
Spear	3	7	-	3	2	4	3	2	2
Sleeping mat	7	3	2	2	-	2	1	4	2
Tapa cloth	1	-	20	1	-	2	-	-	5
Comb	-	-	-	1	-	-	-	-	-
Lime pot	-	-	1	1	1	-	-	-	1
String bag	5	2	4	1	2	4	2	6	6
Drum	-	2	-	1	-	1	1	1	1
Di and hambo	-*	28**	-	-**	7	-***	5	-***	-#
Clay pot	-	-	-	-	-	-	-	1	-

* Kept by relative in another village; quantity unknown.
** Given to household 17 by household 19 who retains right of use.
*** Some given away in exchanges, others stolen.
# Unknown quantity kept by daughter in another village.

In Sivepe there are no hunting or fishing spears or fishing nets, nor are there any sago-beaters whereas most Inonda men possess both spears and sago-beaters. The greater number of tapa cloths in Sivepe is probably related to its greater distance from Popondetta, and so to the general level of acculturation. This likewise accounts for

535 177 [527] [178] Another 30 per cent of the time is devoted to traditional dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

461 177 (b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

[221] (i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCGS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

461 [464] Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 177 [797] (iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] [651] The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

592
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All three households devoting less than ten hours per man-week to subsistence gardening had at least one member in paid work at some stage, suggesting that this latter activity might interfere with basic village tasks.[1] By contrast, increasing involvement in cash cropping does not appear to affect subsistence gardening activities. Household 9, with the heaviest commitment to cash cropping, expended 16.2 hours per man-week on subsistence gardening, well above the average.

The four households most concerned with other subsistence food production (all above 3.8 hours per man-week) are all cash cropping households headed by people under the age of 44 years. Three of them have direct access to shotguns and, with ready cash to buy cartridges, are frequent hunters. Likewise such younger men take the initiative for making sago when food is scarce.

Householder 7 spent 27 per cent of his activity time in other subsistence activities, uniquely in house construction. Having recently arrived in Sivepe he not only had to build a house for his wife and himself but, wishing to ingratiate himself with his affinal kin, spent a substantial amount of time assisting others in their construction work.

[m] While virtually all households are involved in cash cropping the ones directly exploiting rubber and coffee are, as is to be expected, more heavily committed. Furthermore, the cash cropping households spend more time interacting with the external agencies and their involvement in the external economy is, in effect, broadly based.

With the exception of the old widower (6), the amount of time households devote to fulfilling social obligations varies little from the mean of 3.4 hours per man-week - all appear to be similarly involved in the network of social interaction.

There are, however, very substantial variations in the time spent on household tasks, the range being nil to 9.5 hours per man-week. These variations are a direct expression of differing age and sex compositions and the varying degrees of interdependence between households. So householders 6 and 7 are almost entirely dependent on others for the daily preparation of their food, while the greater time devoted by the cash cropping households (6.1 compared with 4.2 hours per man-week) is connected with the fact that the heads of such households are younger and have many dependent children.

In conclusion, where substantial deviations occur from the 'normal' activity patterns they are generally explicable in terms

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[1] However, paid work does not appear to conflict greatly with other subsistence food production, because of the more irregular nature of the activities.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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The 7.5 hours spent by Linton in cash-producing activities far exceeds the sample average and the extent of his commercial interests is reflected in his household having the largest monetary assets of the eleven surveyed and the fourth highest cash income;[1] 3.1 hours were devoted to cash cropping, almost exclusively to coffee, and 4.4 hours to paid work. The latter, building the house for Saiho hospital, was confined entirely to period III and so outside the cash cropping season. He, and another member of the sample, had to provide all materials and on completion of the house would be paid $50; however, it was still unfinished at the end of the survey. Opportunities of this type often occur and in spite of the distance to Saiho and the need to supply their own building materials, the informal nature of the contract and being able to reside in the village throughout more than compensate and account for the popularity of the work, particularly outside the cash cropping season.

Linton's concern with cash producing activities is paralleled by his involvement with the external agencies. Over half of the 7.2 hours per week is spent at church services, in maintenance work on the mission station and in helping the Papuan priest with his food gardens. In fact, proportionately, Linton devotes no more time to productive tasks than the sample as a whole does although he was absent from the village on only 7.4 per cent of survey days, each occasion being of short duration.

[177]

Palminus. Like Linton, Palminus is a married man with five children, all at or below school age. A confirmed cash cropper with the largest individual holding of coffee in the sample (246 trees), he is also one of the 'new' generation with a firm liking for non-traditional forms of entertainment, including gambling, guitar music, parties and alcohol. Aged 34 years, he received four years' schooling and has spent a further four and a half years in unskilled and semi-skilled employment in Port Moresby, Kerema and elsewhere in the Northern District.

With a mean activity week of 51.0 hours Palminus is only slightly less busy than Linton. The general pattern in which this time is allocated approximates that of the sample as a whole, with a consistently higher level of activity being recorded in most categories.

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1 See Tables 4:5 and 10:10.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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[273]

Although without access to a shotgun, Palminus spends even more time in hunting than Linton (98 per cent of the 9.1 hours devoted to other subsistence food production). Guitar parties account for over half the time spent on social obligations and, while they normally appeal primarily to unattached youths, Palminus is attracted to them by the liquor (including beer, gin, rum and methylated spirits) often on sale.

The time spent in coffee production, 5.9 hours per week, is a particularly high figure when it is considered that this work was confined to little more than one-third of the total survey period. When, during the latter part of the dry season, Palminus had completed harvesting his own coffee he agreed to pick in the garden of a member of Seho clan. Although he did no paid work while resident in the village, over half of the 9.5 per cent of survey days on which he was absent was spent at Sangara constructing a house for a settler, with a view to receiving a cash payment for it at the end.

Gorukari. Gorukari is aged 32 years and a married woman with five children, all under the age of 12 years. The two eldest attend Sasembata school, one, a six year old, refuses to go, and the others are below school age, one being still at the breast. Although she received a few months' schooling at Sasembata, her experience of Western culture is slight and in this respect she is typical of the women. Her husband is not unlike Palminus in that he is industrious, interested in cash cropping but not a particularly influential person.

[562]
[177]

On account of the size of her family and age of her children, Gorukari has a heavy burden of basic subsistence gardening and household tasks and while her eldest daughter, aged 11 years, could be of considerable assistance, regular attendance at school prevents this. In addition, Gorukari's domestic obligations often extend to the care of her husband's father and mother plus two children who reside next door. The father is over 55 years and the mother only a little younger and both are frequently sick.[1]

With a mean activity week of 49.0 hours, 62 per cent of her time is spent on subsistence gardening and household tasks, taro gardening predominating in the former and cooking in the latter. This figure contrasts with the sample mean of 46 per cent of total

[1] He was sick, or absent through sickness, on 30 per cent of potential survey days and she on 26 per cent.

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $8 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

517 [177] [578] competing guitar groups, parties also provide a means of making contact with the opposite sex.

Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Saembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 8.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

512 [177]

512 461 In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

887 512 Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Limon's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (6.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

433 184 [24] [222] population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in the hinterland of a village which is located at the forest-grassland boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

461 The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

[m] The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases only about one-third of this is directed towards cash production. Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

433 184 In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100\,\frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.

C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.

L = acreage of cultivated land per head of population per annum.

561 the ones with the largest surplus of production above their immediate household needs. This pattern, in association with the particular roles of the oldest and youngest age groups, appears to support the widely held proposition of individuals building up 'credit' within the community to draw upon in their old age. The data might equally be interpreted as suggesting that most of the transactions are concerned with personal aggrandisement and only the middle age groups are capable of achieving this. Thus, in the exchange of labour services, there is a significant outflow from the 15 to 24 years age group and an inflow into the 55 years plus - that is, from a group where labour is the one abundant resource to another where it is scarce and needed to achieve subsistence - yet the 35 to 44 years group also registers a net inflow. Much of the labour received by the 55 years plus age group was connected with sago-making and this same group accounted for half the sago distributed. Since the individual concerned, within this age group, was unable to collect his own breadfruit and had no other way of reciprocating other gifts, offering one of his sago trees proved an effective way of settling his obligations and, at the same time, meeting his own dry season food requirements while expending little of his own labour.

[556] Each of the three other age groups plays an important role in the flow of specific resources. The 45 to 54 years group largely controls the movement of pigs, one of the main traditional indicators of wealth, but not of products associated with the monetary sector. These latter are divided differentially between the 35 to 44 and 25 to 34 years groups, the first being concerned primarily with cash cropping, from which its revenue is mostly derived and therefore its access to storebought goods, while the second relies heavily on remittances and parcels of goods from relatives in wage employment.

In effect the three middle age groups control the circulation of 'wealth', with that of the 25 to 34 years group being founded almost exclusively on non-traditional goods, that of the 45 to 54 years on traditional, and that of the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (garden produce and cash crops).

<u>The relationships between exchange and the socio-economic status of transacting partners</u>

• 177 Within the total economic system, of which the subsistence villagers comprise the basic stratum, a number of distinct socio-economic categories can be identified with each playing a distinctive role in the pattern of exchanges. On the one hand there are the institutions or organisations associated with the expatriate community or directly promoted by them - the Administration, the OCCS, the Anglican mission, the trade store, the market, etc. - with which transactions are of a formal nature and operate between the individual villager and others in their roles as members of an institution. On the other

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Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepa and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington
197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 The Orokaiva people number roughly 26,000 and are divided
[161] into about twelve tribes. The tribes are very loose units
[619] and recognise no single leader and before European contact,
[423] warfare within the tribe was not uncommon. ...there are no
[614] land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 There has been European contact of some form over a long period.
795 The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 The initial Japanese occupation of Papua took place in the
177 Northern District as the Japanese marched towards Port Moresby via

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

177 563 to be kept under control'. Europeans now living in the Northern District tend to make such wide generalizations. They also tend to allot unique stereotypes to subgroups such as villages or tribes.

The process appears to be one of social spacing in a psychological field thus allowing relationship between broad groups to be defined and fixed. Such a process tends to cause less anxiety in social interaction. Instead of the necessity to formulate a new social relationship with each person, relationships are already defined and the task is simply to find which relationship is applicable. The tribal group is very convenient for this purpose. There exists a strong body of opinion concerning the Orokaiva and his nature, habits, ability and personality, though very little of this has been substantiated by scientific enquiry.

History of psychological testing in Papua-New Guinea

114 The first report of psychological research in Papua-New Guinea is that of the Cambridge Anthropological Expedition to Torres Strait Islands in 1898. The expedition, under A.C. Haddon, consisted of Sidney H. Ray (linguistics), Anthony Wilkins (archaeology and anthropology), C.S. Seligman (native medicine and disease) and three young psychologists each of whom was to achieve prominence: W.H.R. Rivers (who became Chairman of the Medical Section of the British Psychological Society), C.S. Myers (who became Director of the National Institute of Industrial Psychology) and William McDougall (later Professor of Psychology at Harvard University then Duke University). Volumes of reports were published intermittently from 1901 to 1935. The most relevant psychological material is found in the Introduction to Vol.I and in Vol.II, Parts I [redacted] II.

Rivers (1901) described the subjects investigated as:

> visual acuity and sensibility to light differences, colour vision, including testing for colour blindness, colour nomenclature, the thresholds for different colours, after-images, contrast and the colour vision of the peripheral retina; inocular vision, line dividing; visual illusions, some of which were investigated quantitatively; acuity and range of hearing; discrimination of tone-differences; rhythm; smell and taste; tactile acuity and localisation; sensibility to pain; temperature spots; discrimination of weight and illusions of weight; reaction time and choice time, estimation of intervals of time; memory; mental fatigue and practice; muscular power and motor accuracy; drawing and writing; blood pressure changes under various conditions etc.

9: Kearney P-5 (1963) 1966 QJ23 Orokaiva QJ23

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Notu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepe	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pereko
Ex-service-men settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isevene, Sangara and Girua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

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121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[797] to discuss the possibilities that cause this effect. It is interest-
[177] ing to note that the village of Beporo is situated beside the Gona
[871] Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

474 support, a peak number of 19 households being engaged during 1949.
241 In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocos pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-
[131] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 The mission-sponsored Christian co-operative embraced more
241 people and a much greater area than the Gombe Co-operative. The
● 177 Anglican Mission at Gona is responsible for an area that stretches
797 approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[657] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

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[1] The eight societies within the association were to be centred at Gona, Garara, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

478 development of each of the small local co-operatives. These were
241 all organized along similar lines but the following description
applies specifically to the Gombe Co-operative which (to distin-
[177] guish it from Samuel Ungega's venture) was renamed the Yega
[797] Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at
[666] Dogura. This committee was elected by a general meeting of Yega
[857] people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

[451] ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

[407] iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

[461] iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coast-line, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

[451] The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

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[1] Unfortunately no written records of the co-operative were located.

worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural Officer, Mr Cockshott. In mid-May he commenced a weekly co-operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the co-operative movement was regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

Buna. . The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognize that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income
[242] received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

● [177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[659] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [111]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

574 £2.90 by 16 relatives of the host's eldest daughter's husband (the
431 one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

574 The majority of the persons present attended because of their
178 residence in neighbouring communities and claimed no kinship links
602 with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

574 Transfers of property at this feast differed markedly from those
178 in feasts of the traditional type. Firstly, the food was contributed
431 by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognise such an obligation to those who brought food.

574 In this village many of the older people wear only loin cloths
292 made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the
302 waist. Four young men were daubed with face powder and one wore a
301 spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and
[MM]

[1] See p.74.

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution.

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves.

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words.

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films.

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows.

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m.

Men dancing at the feast

when three young single women joined in, though each danced separately and without appearing to take any notice of the men or to be noticed by them. Only three mixed couples were seen dancing during the whole evening, the partners in each case being real or classificatory siblings. They danced ballroom style, which the girls had seen when away at work as nurses and domestics. On some occasions two men danced together, but for the most part each man danced individually, following his own style and apparently oblivious to those around him. Traditionally, married women do not dance, though single women dance in supporting roles.

It was clear that while music and dancing were based largely on a very limited conception of Polynesian patterns, dress and other behaviour was based on European models - even to the extent of several of the most prominent citizens handing out Rothman's king size filter cigarettes! Though traditional prohibitions (such as those against married women dancing) prevailed, there seemed to be a conscious effort not to behave as an Orokaiva, and some of the local people who did not participate explained that it was because they did not know how to dance in the modern style. Over all the men engaged in nontraditional activity much more than the women did.

Shortly after daybreak a church service was held, breakfast was served, and the party was over. The remains of the food was distributed to those relatives who had contributed most food and

those visitors who had given most cash. In former times, they said, feasts usually continued for two to five days, but today there is a tendency, particularly in areas where paid work is available, to get them over in a single night or week-end.

While the rationale for the party was the birthday of the two children, they were in fact conspicuous by their absence from any aspect of the celebrations, feasting or exchange. The changing modes of dancing, dress, entertainment and economic exchange showed a constant striving to acquire foreign behaviour patterns. The feast did serve to confirm the adoption of the children (which had not previously been formalized) and to affirm the bona fides of the son-in-law who had been unable to meet his bride-wealth obligations. But it appeared to me that the main motive of the promoter (a retired mission teacher whose prestige was considerable, but waning in his retirement, and whose status was marginal in a patrivirilocal society in which circumstances forced him to live in the village of two of his daughters' husbands) was to reaffirm his prestige and reinforce his stake in the village of his residence.

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investment in the villages, for there is scope for an astute and influential individual to use them to accumulate cash which may subsequently be invested. On the other hand, an institution such as bride-wealth may be detrimental in that an individual may consider it pointless to earn more cash if a large proportion is to be used to assist kin in exchanges which do not benefit him directly. Also an individual may have difficulty in accumulating cash for investment if social pressures force him to contribute a high proportion of his cash income to non-commercial exchanges.

In addition we have no clear understanding of the degree to which and circumstances under which an individual's participation in ceremonial exchanges involving cash affords him access to the land, labour and capital resources of the group to which he belongs. Some indigenous entrepreneurs minimize their participation in these exchanges while others apparently attempt to use them to advantage.

The following description of an Orokaiva marriage and bride-wealth exchange does not contain sufficient information to allow generalizations about economic implications but may be a useful contribution to a comprehensive study of customary exchanges. The activities associated with the marriage involved people from several villages and hamlets as well as a nearby land settlement scheme. The events spread over approximately two and a half months culminating in the payment and distribution of the bride-wealth at the end of August 1962.

II

Traditionally, an Orokaiva man could acquire a wife by payment of bride-wealth; by exchange of a girl from his lineage, sub-clan or clan for another from an outside group; by elopement; or by capture (Williams 1930:130). When Europeans gained control of the Orokaiva area early in the century, marriage by capture, which had been common, was no longer possible. Since then, other aspects of marriage among the Orokaiya have changed. People may now move freely within the Orokaiva area and elsewhere, and consequently the range of villages from which an individual may choose a spouse is wider than in the pre-contact period. Furthermore, many marriages now take place at least partly in accordance with church practices. Missions[1] have failed to suppress exchanges of bride-wealth and it

[1] The Anglican Mission has been operating in the area for over 50 years and has been the most influential evangelical institution there.

583 is still transferred in most marriages, including those which take
177 place in a church.
799

Polygyny was accepted but probably not frequent in traditional
595 Orokaiva society. In spite of mission opposition there are still instances of polygyny but the great majority of marriages are
614 monogamous. Marriage outside the clan is considered preferable but there are numerous cases of marriage within the clan. The
582 village is not considered an exogamous unit. Marriages are usually
[621] patrilocal but this is not a definite rule (cf. Williams 1930:130-3).
591

III

584 In this particular marriage the groom lived in Inonda, a village of approximately 43 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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[1] See map, p.84A

[2] See diagram, p.85A and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

CHAPTER 2 - LAND TENURE

619 The concept of the tribe as a group of related clans exists among some of the Orokaiva people, but among the Inonda villagers at least it seems to be only vaguely defined and to have [rm] little if any relevance to land matters. The Andiriha and Jego'undi sub-clans are referred to in some reports as belonging to the Ihane'embo tribal group and although Inonda informants recognize some affinity with the other clans in this group, they say that the name Ihane'embo came into use only after European contact.

423 Land rights were found to be distributed at the following levels of social segmentation:

The rights of social units

423 The sub-clan: All land investigated in and around
614 Inonda was found to be associated with one or more sub-clans.(1) It is a common misconception on the part of outside observers that any particular piece of land can be associated with only one such group. This is certainly not the case in the Inonda area and from superficial enquiries it appears that the Inonda case is not unique.

Where more than one sub-clan claims rights in an area the rights of each are determined by two factors - the circumstance under which the original division of rights took place; and the temporal, demographic and social changes that have occurred since the original division of rights.

This may be illustrated by the Inonda situation where

(1) Several atypical instances have been noted wherein rights are held by the clan as a whole rather than by a particular sub-clan. This may be exemplified by the case of the Anumbo lands which are described on page 23.

Other sub-clan rights include those to burial grounds and tracks. Once land is set aside and used as a burial ground it remains vested in the descent group even after it is no longer used for burial. Burial grounds may, however, be a post-contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

The lineage: The Andiriha sub-clan of Inonda is divided into four lineages but the Jego'undi sub-clan consists of a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

keep warm. As a consequence they slept much of the day following.

Non-traditional experience: Table 14 below shows that there is a correlation between non-traditional experience (in terms of years of paid work and education), and the planting of cash crops. Table 15 shows that there is likewise a correlation between years spent outside the village and the planting of cash crops. Absence from the village is generally but not invariably associated with work or schooling. The data presented in the tables suggest that an increase in non-traditional experience is associated with increased interest in cash cropping.

Table 14

Comparison of non-traditional experience (in terms of paid work and schooling) with planting of cash crops

Total years in paid work or school	Number of Coffee or Cocoa Trees	Code No. of Household Head
45	see note (a)	8
17	335	1
16	288	4
11	150	7
10	0	6
8	178	3
4	0	5
0	0	2

(a) This man is a stranger in the village, but he is currently planting extensive cocoa gardens in his village of origin.

Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
36	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager,(1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

(1) He has planted 1,161 cocoa trees.

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 402 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 402 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected 126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had held posts involving considerable responsibility over people and property.[2]

[466] [463]

472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepa six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

[177]

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 402 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings No.	Period	Payment	Non-relatives from same village	Non-relatives from different village No.	Period	Payment
A	-			-	1 1	1 month 2 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3, abandoned as unsatisfactory.	3	occasional	$2.50 per week

245 Individual planting of cocoa was tried next, with twenty-one
[435] people planting between 20 and 1,300 trees each. The average plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 An Ombi man named Charles was instrumental in persuading the
464 people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility
245 of establishing a tenure conversion scheme at Ombi-Tara. He planted
249 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 Conversion at Ombi-Tara began with a visit by a resourceful
249 Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

Chapter 3

Motivations and expectations of the Ombi-Tara people

Desire for improved standards of living

185 177 The Ombi-Tara people aspire to what they consider to be a European way of life. They consider that by planting a new crop, rubber, under a new land system they may be able at last to realise their aspirations. The first response of 90 per cent of the block-holders interviewed to the question 'Why did you get a block?' was 'to get money'.[1]

In any formal or informal discussion concerning the reasons for wanting to grow cash crops or for being in favour of tenure conversion, the same points were mentioned repeatedly - the desire for a European house with an iron roof, clothing and food from the store. Some more ambitious men suggested that they hoped to establish trade stores or workshops, to buy vehicles, or less [241] specifically, 'to start a business like Europeans'.[2] At least 20 per cent of the villagers appear to consider the change from planting cocoa, coffee or food crops to planting rubber to be as significant as the innovation of conversion.[3] The villagers hope that rubber will produce substantially greater returns than they were receiving from their cocoa plantations.[4]

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[1] The methods of obtaining information are described on pp.1-2.[A]

[2] These replies tend to support Epstein's finding (1965:191) in New Britain that villagers often wish to copy not only European consumption patterns but European productive activities as well.

[3] Most people had had some prior experience with rubber, either through the Ombi-Tara bush rubber stands or the Sangara rubber plantations, but few had planted rubber as a cash crop.

[4] As Brookfield has pointed out (1958:24): 'It is quite wrong to suppose that the economic factor can be disregarded in native development. Native toleration of low returns is greater only in degree than that of established European plantations.'

A [See Category 128--Analyst]

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since
361 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

491 Paradoxically, conversion to individual holding of land appears to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Mamu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mamu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
177 of the savings account, said that they had first heard of blocks through the Sangara ex-servicemen's resettlement (not conversion) scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
185 which many Ombi-Tara people find attractive. Several people sug-
461 gested that they would like to employ labourers and work less hard themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Manuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:5): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
● 177 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart fr[illegible] his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.

A [See Category 423--Analyst]

657 initiated and hence are not party to the agreement to set aside 800
423 acres for individual holdings. Problems could arise if, on return-
177 ing home and finding all forty blocks occupied, they should refuse to accede to the new arrangements. It also remains to be seen whether the man of Mumu clan whose block is on Kuni land will be permitted to extend his holding beyond the present twenty acres. The leader of the Kuni clan suggested to us that this would be allowed.

Concepts of title. While everybody interviewed said that the blocks belong solely to individual blockholders it remains to be seen whether in future all people will be prepared to cede to the blockholders all rights which they previously held in the converted area.

There was considerable confusion concerning the exact time that the blocks became the property of individual holders. Most people considered that this occurred immediately after the application forms had been signed, while some thought it was as soon as survey had been completed and others thought it was after the blocks had been distributed. Nobody realised that the block did not legally become his until ninety days after the Land Titles Commission hearing.

No one understood the purpose of the Land Titles Commission hearing. A genealogy was prepared in the hope that this might be required by the Land Titles Commissioner. At the hearing, the Commissioner read out the names of the thirty-five applicants and asked each applicant to call out the number of his block. The Commissioner explained that he would send a list of the applicants' names to Port Moresby and after ninety days each man would get a pas[1] - the title document - saying the land was his.

After the hearing the Ombi-Tara people indicated in conversation that they thought the Commissioner had come to check that each man knew the number of his own block. They considered that the piece of paper which they would get merely confirmed that each man held his own block as he had done for the past seventeen months. This lack of understanding by the villagers of the true function of the Land Titles Commission hearing could be significant if objections to conversion were raised at the hearing.

657 Development of a market in land. The Administration hopes, by
423 converting land from customary tenure to holding under individual
425 registered title, to facilitate the development of a market in land. This is essential to ensure that no person with agricultural ability and initiative is deprived of land. It has been pointed out by

[1] A neo-Melanesian word meaning 'letter'.

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy [464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

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[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was self-sufficiency. Traditionally, the people of New Guinea were subsistence cultivators planting their food crops in small clearings in the forests and supplementing this food supply by fishing, by hunting the animals which live in the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements were available: stone axes with which trees could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 24 226 224 222 412 392 128

433 Such an economy, in which there was no concept of saving and no profit motive, tended to be resistant to change; innovation was unnecessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

24 17 412

P.I-A

433 were introduced. The use of these tools has
24 greatly lightened the work of the New Guinea
179 gardener and substantially reduced the time
412 needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 The introduction of new tools has not, how-
242 ever, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land
241 use, which can best be described as one of
242 shifting-field agriculture, the average land re-
311 quirement is a quarter of an acre per head per (P.I-B)

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year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

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[437]
The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

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Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A]

602 Kinship groups are of major importance in
the functioning of village society in New
[619] Guinea. Every individual is a member not
[614] only of a parish but also of groups of closer
[613] kin, a clan, and maybe a lineage. Lacking any
602 system of payment in cash for services ren-
464 dered, the villager obtains the assistance of his
476 relatives for heavy work such as the felling of
big trees to make a swidden, dragging a canoe
log to the beach, or making a long seine fish-
ing net. Obligations thus incurred are met
either by reciprocating when asked or by
602 making a gift. The kinship group provides
311 social stability and in practice the pattern of
241 land use is frequently decided by the senior
members of the group. The planting of food
crops by any member, even on land to which
he does not control cultivation rights, causes
no concern because rights to temporary usage
may be easily granted, but the planting of
tree crops, which may remain in the ground
from thirty to eighty years, is a different mat-
ter. Planting tree crops is tantamount to
alienating the land for at least a generation
and very often some members, at least, of the
kinship group object to such long-term use.
Even if they do agree to an individual mem-
ber planting tree crops, there is almost always
the assumption that he must share any profit
he makes with other members of the group.
Individuals who have planted cash crops under
these conditions generally become discouraged
when they see the fruits of their labours being
reaped by kinsmen who contribute little or
nothing towards production.

657 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
has approved a series of land tenure laws, the
177 last and most radical of which was passed in
1964 providing for the registration by in-
digenes of individual freehold title to land: a
measure designed eventually to establish a
European system of land tenure throughout
the Territory. In the meantime, such meas-
[578] ures, by pitting traditionally conservative
people against the products of modern West-
ern education, are a cause of internal conflict
within indigenous society.

632 The establishment of towns, unknown be-
177 fore the coming of Europeans, has forced an
even more drastic adaptation than have the
(P.3-A)

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

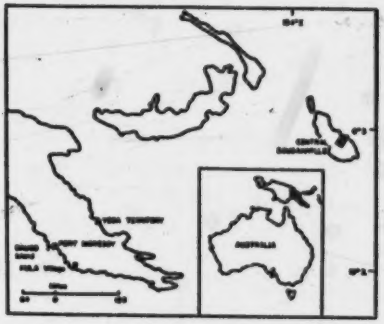

Fig. 1. Location of the three case studies

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and hornbill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this

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time until the outbreak of World War II, Yega men began leaving their villages to work

466 [P.5-A]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

226 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 423 614 the Yega to exist off their strip of coast; rights to fish over these reefs are held by the clans whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowadays [191] is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P·8-B]

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14]

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

424 The first such experiment was an agricul-
241 tural co-operative, originated by a returned
[177 soldier who got the idea from one of his
[177 wartime Australian friends. Anglican Mis-
sionaries sponsored and directed the scheme
and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in

[P.14-B]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

361 He has now cleared bush and planted gardens
423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a
458 source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was
[439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two
245 cents per pound. The discouraging effect of
433 such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined
178 above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

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[476] a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in tradi-
177 tional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

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177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of supervision and advice from European and [657] indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423] d) The location of houses on the blocks.

e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn [434] cash from commercial agriculture. From the time of earliest contact with Europeans some [166] of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away 178 working. Those who are married are accom- panied in almost every instance by their wives 592 and children. This situation represents a marked change from the pre-1940 years when 166 many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega [446] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve- 178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with [797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has [464] enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

lines of 'A feels sorry for B'. As long as that sentiment prevails, the equivalence rule is in abeyance. But it will become operative as soon as there is a quarrel. Then, however, what B will have to pay is not the accumulated ledger. B will have to pay, according to the model I have been using, *for the anger felt by A*.

It has already been often remarked, for instance by Williams in his work on the Orokaiva (1930), on the Kutubu (1976) and on primitive justice in general (1941), that in such societies one has to pay for anger, for slights, for psychological suffering, rather than for what is objectively on a ledger. If A becomes angry, he may use the ledger as his basis of claiming from B; he may just as easily demand vast compensation for 'insulting my sister', an item that does not appear on the ledger at all.

We thus face a paradox: there is an ideology of balanced exchange, but debts claimed are not necessarily those due by the rules of equivalence. By Sahlins's theory, the importance of the ledger increases with social distance. This may well be so, because social distance makes a great difference to the translation rules. In the cases where exchange is meticulously balanced in quantity—where one measured the height of the piles of taro—the translation rules usually specify that the exchanges serve to make peace, to assuage anger, to compensate for something unpleasant. From the semiotic viewpoint I am taking, it is they and not the social distance as material and mechanical fact that determine the importance of keeping a ledger.

There is a final point: balance is not only a matter of ledgers but also of equality. In an unbalanced relationship, there is a narrow line between A feeling 'sorry for B' and A feeling superior. If A should feel superior enough to B to slight him, then the anger caused by the slight would at once wipe out the ledger, at least among Orokaiva. There are peoples who more or less permit a creditor to slight a debtor. Those who do not permit it, like Orokaiva, feel some attachment for equivalence rules.

The scheme outlined here does not make a material and functional classification like Sahlins's unnecessary. On the contrary, such a classification is a necessary control on the kind of analysis here proposed. All that is claimed is that functional classifications should be made to pass through the grid of semiotic systems.

The anthropological task, with regard to reciprocity, does not however end at that point. For anthropology, this model of a closed semiotic system is a tool for resolving other, much broader questions which are best classed as historical. The penetration of Australian capitalism has introduced a very different concept of exchange, a kind of fusion of the balanced and negative modes, destructive of Orokaiva social relations, but profitable economically. The co-existence of the two systems in the same society has given to the Orokaiva exchange system an ideological weight it did not previously have, in that it began to stand for Orokaiva cultural identity as ideology, in opposition to capitalism as ideology. This polarisation had not begun in 1970, but it was strong in 1973, at least in the village of Kiorota.

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being æsthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Boaiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949, "Co-operative Rumours Kokoda Sub-District."

For survivors from the settlements actually destroyed by the eruption, the loss of many relatives remains a cataclysmic memory, feelingly recounted. But the fine points of organisation of the resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research procedure. I should also, however, mention one or two general facts as a background to my report. The British Protectorate of New Guinea was proclaimed in 1884; the Territory of British New Guinea was placed under the authority of the Commonwealth of Australia in 1902. The effective conquest and pacification of the Northern District in which the Orokaiva live, occurred between 1894 and, say, 1906. It was to some extent speeded up by the presence of some gold miners who had to be protected and the road from Buna to Kokoda was built towards the end of that period. After the first world war, Europeans set up rubber plantations on a small scale; the Anglican Mission became established, especially along the coast. The process of pacification was a somewhat bloodthirsty event. If the Orokaiva are asked to state when they discovered what they call the "new day," i.e. modern civilisation, they refer neither to this conquest, nor to the events following the eruption, but rather to the second world war and its aftermath.

The Japanese conquered most of the Northern District in 1942 and were driven back, in the beginning of 1943, by the combined Australian and American forces which crossed the Owen Stanley range and defeated the Japanese along the Kokoda trail. Some Orokaiva collaborated with the Japanese and killed or betrayed Europeans who were left behind in the district. When the allied forces came, the Orokaiva were able for the first time to establish really comradely relations with white men who, moreover, were generous with gifts and left behind much valuable equipment. The returning Australian government developed a new colonial policy after the war eliminating the old use of compulsion and corporal punishment while the Anglican Mission and later the government did much to improve educational facilities. Access to trade goods on a major scale began about that time. Training in the handling of cash crops, notably coffee, also dates back to the immediate post-war period. The eruption, which occurred in 1951, certainly had significant social consequences, but it is not easy to keep these consequences, i.e., the modernisation that can be directly ascribed to government measures arising out of the eruption, distinct from the policy of social development that was being followed at this time throughout the district.

With regard to the eruption, we must distinguish three types of effect: first, a part of the district, notably that occupied by the Sangara tribe, felt the direct blast and suffered very heavy casualties, while all survivors were evacuated; secondly, a part of the district, occupied by several tribes, was endangered

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[273] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

276 from relatives who live in the mountain districts or else obtained
439 by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[791] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

The three introduced cash crops of significance in the two
241 villages have been rice (pre-eruption), coffee and rubber; in
●177 both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these
[243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
[243] the Northern District has a long and somewhat unhappy history which will be referred to later; at the time of the eruption, just before the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory
[474] was no longer buying indigenously grown rubber, but a rubber cooperative was set up early in 1967, with the encouragement of the Department of Agriculture, in a village about one mile from Sivepa. The Department of Agriculture was also encouraging the people to plant superior Malayan rubber trees and two men had planted 250 and 72 trees respectively. Rimoldi reports that "members of the clans now represented in Sivepa and Binduta" owned four plots ranging from less than half an acre to about three acres in area.

Since that time, however, a new plot has been established, four and one-half acres in size, on which theoretically seven men were to establish rubber stands. The Malayan trees were planted here, as well as self-sown trees from the other plots which were dug up and replanted. These plantings occurred shortly after Rimoldi left. If the new cooperative venture succeeds, it is likely that the new plot--most of which still remains unplanted--will be exploited, but people were clearly waiting to see whether sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the setting up of a coffee cooperative, first under the Higaturu Local Government Council and later independently. First plantings in Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that in 1964, there were 1,100 coffee trees in Sivepa, owned by five growers. Crocombe and Hogbin reported 801 trees in Inonda in 1962, owned by three households. Since that time, Inonda has not added to its plantings, but Sivepa, along with the whole of the Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from five to 14--every able-bodied man in the vigor of life has his coffee garden from which he derives an annual income of between $50 and $100. This increase is the result of vigorous encouragement of plantings by the Agriculture Department, a change of ideology under the impact of the Local Government Councils and a great improvement in the marketing arrangements. In 1966, Sivepa coffee was collected and promptly paid for in Garumbi village, about 15 minutes' walk from Sivepa. I did not take another coffee census

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relatives will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

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177 Capital goods, though few, should be briefly mentioned. Apart from a house and his clothing, the average man owns very little. The sum of his possessions make a very small pile: a bush knife and two or three implements, some kitchen utensils, a small box of feathers and ornaments, usually carefully locked, perhaps a few dollars of savings, and--in both Inonda and Sivepe--an interest in a coffee-hulling machine presented by an anthropologist. About half the people have a storm lantern; two Sivepe men had a pressure lamp, lit on weighty occasions only. With the exception of the valuables, these capital goods are innovations; at the time of the eruption people had far fewer, and these were mostly acquired after the second world war or from American soldiers.

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439 Comparing the development of Sivepe and Inonda over the last 15 years, we note several significant differences in the exploitation of resources: Sivepe, but not Inonda, has rapidly expanded its coffee production in the 1960's; Sivepe but not Inonda is deriving a significant cash income from "looking after" the wives of migrants. I have referred to several other differences, but these seem to me the most significant, as they do not appear to me to follow directly from ecological differences.

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

731 177 121 The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

571 619 628 We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

571 613 591 Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepa, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepa, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepa men; the women visited less frequently than the men.

I had little chance to observe relationships between Orokaiva
609 and Papuans and New Guineans from outside the Northern District,
619 except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepa and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusuale.

657 At the time of the eruption, a certain number of new roles
● 177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepa came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepa; the sanitary inspector appointed by the council, who lived at Garoubi, came even more frequently, while many Sivepa people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[815] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garoubi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garoubi, but was non-committal over the other two, as he saw Isoge and Binduta were
[276] insufficiently represented. He chewed betelnut with the people;
the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages.
[191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Motu), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but was working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

657 649 177 [494] Employed rather widely over the last decade or so, they have a responsible job, for which the qualifications include a reasonably high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European resources, namely motor transport. They very often have the power to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers came from the Motu-speaking coastal district. One [797] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
177 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector,
[797] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that
[757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with
[743] minor ailments. Serious cases were often referred to Saiho hospital
[758] and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

[582] There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota,
[232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left.
[494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

177 The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepe and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245 494] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

563 439 443 More important was the encouragement given by the Chinese store to the development of Papuan-owned trade stores in the villages. Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 366 368 In the previous sections I have sketched the network of contacts characteristic of Sivepa village at the time of the eruption and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garumbi, or Sasembata village), the locale of contact for the Inonda people is 177 795 more often Popondetta. Another difference is that whereas Sivepa,

[177] in its attitude to culture contact, is somewhat homogeneous, Inonda
[195] is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

[177] The changes which have occurred in the pattern of outside
[181] contacts in Sivepe between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[199] than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepe.

[177] Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white man's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier,
[191] an interpreter is, at the very least, required as intermediary between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepe in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepe the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

the people. He was the only white man in the district (omitting the anthropologists) who actually did this. Finally, some people of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

The only taupa residents in the district were the head teacher and his wife; they had daily personal contact with village people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepe men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepe men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

Characteristically, contact between the taupa and villagers occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

closing up old isolated hamlets and moving the inhabitants to the larger, more modern-looking villages. The patrol officer's speech to the assembled people was intended to encourage increased cash-cropping activity. The patrol officer was young and not very well informed; some of the suggestions he made (e.g., that the people should busy themselves selling produce at the Saiho and Popondetta markets) were based on unrealistic assumptions about the lucrativeness and volume of trade at these markets, and provoked no more than an indulgent smile. As the patrol officers usually are young men of limited experience, the government is wise in depending, in its efforts to arouse enthusiasm for economic development, not on these officers but on the structure of the local government councils. Thus the most crucial European role, from the viewpoint of development, becomes the advisory officer to the council through whom development ideology must flow to the villages. In 1967, the government acknowledged the unusual significance of the work of these advisory officers by setting up a special training course for them with the School of Pacific Administration at Sydney. I did not have the opportunity to see the work of these trained officers, as none had graduated by the time I left.

In all matters the ultimate initiators of contacts were the Europeans who, after all, had set up the institutions for which their roles were required. Some of these institutions depended, however, for their survival on the voluntary support of the Orokaiva. This is true not only for the schools and churches, but also for the courts which depended on information laid by councillors and private aggrieved individuals. Similarly, the agricultural officer depended on people freely coming to him to ask for rubber trees, coffee trees, etc.

In some respects, the pattern of these contacts differs today from what it was in the early period of colonialisation. While a local government councillor reports infractions of council rules to a Native Court voluntarily, this voluntary principle did not exist before the local government and could be punished for not reporting infractions of the law. Rubber and coffee were planted, not voluntarily by individual but compulsorily, every village having the duty to plant a certain number of trees every year. It was only after the second world war that the government began systematically to seek from the Orokaiva not forced compliance but voluntary cooperation. Even today, it is not always easy to know whether contacts with Europeans are the result of choice or compulsion.

Let us take the case of two Sivepe men whose houses were not up to the standard of the rest of the village. In the end the "committee" forced them to build according to the rules. This man was motivated far more by pride in his village and desire to demonstrate his power than by fear of the government; nonetheless, he could secure compliance only by reporting the cases to the councillor and a threat to lay a complaint with the patrol officer. The ultimate sanction to which he appealed was thus a court conviction and jail sentence (no less!) imposed by Australian authority. There was also the motivation that the patrol

officer, observing the offending houses, might charge the "committee" with dereliction of duty. This could not be taken lightly as some years earlier, in the days of the village constables, a negligent constable might find himself deposed and even jailed. (How frequently this actually happened I do not know, but the fear was still there.) The situation seems essentially ambiguous: willing cooperation and compulsion are both present.

As may be expected, contacts between Orokaiva and taupa are perceived totally differently by both parties. The European has two kinds of concept foreign to the Orokaiva, namely the concept of a formal organisation by which long-term fiduciary relationships can be established on an affectively neutral basis; and the concept of welfare objectives pursued by these organisations on the basis of universalistic values. The Orokaiva had no difficulty in trusting a European to fulfill fiduciary obligations if he had a close personal relationship with him, and likewise he would expect such a European to have an interest in his welfare, but as I have shown, such closeness was extremely rare in Sivepe. It was just unthinkable, to the Orokaiva, that an official casually visiting the village was truly interested in their welfare, because the Orokaiva could not see any reason why such an official should have such an interest. Clearly, the official was thought to come in the pursuit of his own, or his organisation's advantage. The patrol officer came to punish people who did not obey the law. I was told by informants that it did not greatly matter what one said to him as long as it stopped him from punishing people. The same was true, in one way or another, for most taupa, except some of those one knew well.

All men and women of Sivepe were asked what Europeans they knew or had known; the answers to this question were especially interesting because of the omissions. None of the persons listed in this section as being in contact with Sivepe people were ever mentioned--not even the head teacher and his wife. Anthropologists who had been in the village earlier were mentioned by many men and women, past employers were mentioned if the job was in the employer's home or if both employer and employee lived on the premises (e.g., in a hospital). The other contacts were left unmentioned, not because informants were uncooperative, but because these contacts did not fall within any of their categories of social intercourse. If I had asked specifically: "Has any European ever weighed your vegetables?", predictably some vegetable-weighers would have been listed, assuming that their names were remembered.

The relationships at Ilimo camp form a striking contrast to this general picture. This was obvious at once in the interviews as the name of, for instance, Mr. Kaad, is remembered by everybody, as are also a few other names, though less widely. There was hardly an informant who had been to Ilimo and who did not report, in one context or another, the activities of Mr. Kaad. Never once was he referred to in the accounts as "the taupa" or "the officer." When I interviewed Mr. Kaad in Sydney, he likewise felt that the kind of relationships between

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two
657 medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

[329] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically.
[431] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus, having accepted Australian gifts, the Orokaiva were naturally anxious to
[423] find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
659 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
657 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Koipa, Awala, Waseta, Kongohambo and Hununi. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

829 returned ancestor, but have principles for distinguishing between
769 those who are and those who are not ancestors. A territorial distinction that was suggested to me was that the Northern Hemisphere is generally regarded as inhabited by spirits and ancestors. (It was an educated informant who suggested this.) Some Papuans who went to England for the Queen's coronation could not believe that the buildings, the elevators, etc., had been built by ordinary men. A parcel of clothing, taken from England by a visitor was thought of as a gift from the ancestors.

Israel, Egypt, the Red Sea and other places mentioned in the Bible are especially so regarded. One example of the sacredness ascribed to these places was evident in the reception given to a popular missionary in the Kokoda district who returned to his parish after a visit to the Holy Land. The festivities with which he was received were very much out of the ordinary, and I was told this was because the ancestors had gone to these places.

In accordance with the usual Melanesian pattern, Australia, being the country exercising political and commercial control, was excluded from the vague area to which the ancestors had supposedly gone. On the other hand, New Zealand was not necessarily regarded in the same way as Australia. A young New Zealand geographer who paid a brief visit to Musuni (in the Sasembata district) and to myself at Sivepa had been showered with gifts and one man had pressed money upon him which he was asked to invest in New Zealand, in which case it was expected to multiply a thousandfold. The young man was prudent enough
123 to decline the offer. I do not quite know how my wife and I were
829 regarded in Sivepa, but there was evidence that the surrounding villages
769 likewise regarded us as returned ancestors; I was once drawn into a discussion with a branch of the Jegase clan group at Kiorota, four hours' walking from Sivepa, where it was known that we were living closely with the Jegase clan group. I was asked point-blank whether I belonged to the Jegase clan; later, the Sivepa people told me what the meaning of this question had been. It would seem that this identification with returned ancestors was due less to our geographical provenance than to the type of relationships we had developed with Orokaiva people; both the geographer and we were living in villages, eating with the people and sharing with them; my wife was gardening; our behaviour was not that of the taupa. To this point I shall return.

177 It must be due to reasoning of this sort that Americans were
829 placed definitely in the category of returned ancestors. I was told
769 they were very different from other taupa (or rather, they were not really taupa at all). The American forces, it will be remembered, fought the Japanese at the Kokoda Trail and drove them out of the Northern District in 1942-1943. Both they, and the Australian troops accompanying them, maintained friendly relations with the Orokaiva who helped them in various ways, supplied them with whatever food they had in return, received very generous gifts. The American soldiers ate with the Orokaiva, which Australian officials hardly ever do, and

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the
[209] Vietnam war and we discussed it a few times. The reaction was strange:
[191] it was a great pity that those American boys were being killed in Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[178] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

(124) I shall quote in detail one document, a tape recorded speech
(126) made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

(177) This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
(625) favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
(769) village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
especially when they wish to give the impression of being modern and
[777] educated. Papuans close to the Mission invariably speak of it as a
natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added
[787] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisire.
[762] A person who is sisire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisire.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
extremely hard to tell; it is even harder to tell whether these powers
177 were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Honckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

a warning not to openly disobey the new culture heroes, to deal with them gently and cunningly and avoid making them angry. Thus the eruption led to greater circumspection if not contrition. It also led to a sense of deeper involvement with the new age. The immediate consequence was a fashion of modern village building in 1951, as both Belshaw and Kaad have reported. After this rather brief demonstration of respect to the deity, life reverted to its previous style for some years, after which there was a further period of innovation, more soundly based on the development of the Sasembata school, the local government council, the increase of economic opportunities, both in the towns and in cash cropping, and finally on nation-wide political development. The Orokaiva of today definitely sees himself as entering upon a new age, and he views this with optimism and some excitement. The eruption undoubtedly was perceived as a potent sign of the coming of this new age and the danger of resisting it. For this reason, it might theoretically be expected that new ideas would be accepted more eagerly in the resettlement areas than in the less affected areas such as Inonda.

Unfortunately, I find it hard to evaluate the Inonda data. The Christian, cash-cropping families were as concerned to view themselves as living in a new age as were the people of Sivepa. The views of the other families were hard to obtain. Crocombe and Hogbin pointed out correctly that these families explain their non-participation in the coffee scheme by difficulties in their land title. The two authors also characterised the Pagan families as being of "lower status", pointing out that the "higher status" families are (also in neighbouring villages) the most likely to plant cash crops or likely to plant most, (1963: 85) for reasons of prestige. During my own stay, the Pagan families set themselves against participation in the women's club, as they felt it violated traditional custom. I had the impression that there was a status conflict between the factions, as participation in the church, the women's club or any other European activity would have put the resistant faction in a clear position of inferiority, and increased the power of the leader of the other faction who ran all these activities.

Section 11: Acculturation

The contacts and the ideological changes sketched in the previous sections have not led to a basic transformation of the culture. Williams' classical account of the Orokaiva, based on fieldwork conducted in 1923, still corresponds in fundamentals to what can be seen today. In the present section, I shall draw attention to some aspects of the culture that have changed since the eruption, but it should be stressed that, in field observation, they are seen as embedded in a largely traditional culture, with a social organisation, economy,

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 T.ro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive
[411] diet that has undergone recent changes: trade salt is almost universally used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

177 Housing and village improvement: The changes in this aspect of culture are capable of fairly precise description, which has been provided in Table 10.A This table applies to Sivepe only; I shall refer to some minor differences between Sivepe and Inonda at the end of this section.
335 The changes may be analysed into several main types. First, there is
412 the extent to which European materials and tools are used. Here, we note
177 that nails were a building material as early as 1951 (and therefore also hammers), but a significant change has been the extent of their use. The introduction of nails was partly a time-saving device, as framing can be efficiently lashed together with the bark fibres traditionally used. On the other hand, the "timber" walls might not be easy to lash together and nails are probably necessary here. On the other hand, the blackpalm or betelnut which is used for the floors does not take nails at all well and the lashing is a superior technique,
177 used in almost all the houses. Secondly, there have been changes in
342 house design, and the use of materials. The increase in house size, which was the most striking of the innovations, was general throughout the village, according to a standard set by the leader and adhered to by everybody. The change from betelnut to blackpalm flooring is towards a superior, toughter material, harder to work and comparatively rare in the Sasembata district. The change from sago to "timber" walls was purely a matter of aesthetic fashion. I was told by Mr. Sebire that it started in the early 1950's in the Kokoda district; in Sasembata district it does not seem to have started until around 1965. The new houses at the mission station had "timber" walls; so had the new houses in several other nearby villages. Sivepe, being built on a new site after the fashion started was wholly built in "timber" (except for a few houses shifted from the old site and standing on the new one and gradually replaced). The "timber" looks like weatherboard,
[335] which has been used on Australian houses in the Kokoda district. It is cut from logs sawed to a length of six feet, which are then split into shingles with a bushknife, a procedure which takes much time and skill. The six feet long shingles are generally 3/8 inch thick and five inches wide. The intention is to overlap them, providing better protection against wind and rain than the sago walls have. The work of cutting the shingles is so arduous, however, that the overlap is usually quite small when the houses are built; as the logs are split green, the timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European
[342] authorities. (The timber walls, according to administration officers, were a purely Orokaiva idea.) For reasons of hygiene, the administration wanted the houses to have windows, which traditionally they did not have. The new houses have large windows, but they are all blocked up with boards (to keep the wind and rain out) so that they are not functional,
[344] except in warding off criticism from Australian officials. The village
[351] improvement measures: elimination of pigs, lavatories, rubbish holes, pens for chickens; are all based on European advocacy. The neat lines of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepe. The changes found in New Sivepe are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepe if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepe has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepe growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

177 245 249 [824] based, is alien and seems dubious to Orokaiva. The Europeans claim that a plant needs to be looked after even if it contains no spirit; to the Orokaiva this appears absurd.

Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 871 For the rest, the skills acquired by Orokaiva over the last 15 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of [212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While 177 802 I could see no evidence that people have acquired mathematical knowledge of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking [192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number" 177 829 for a variety of quantitative concepts, including price. Finally, one must regard as an aspect of acculturation, the introduction of many

177 829 [203] concepts drawn from the scene of world affairs. While among the Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The political orientation displayed was a mild kind of nationalism, and a sense of closeness to newly independent non-white states. But the information, derived from radio broadcasts and speeches by councillors, introduced an acculturative kind of perspective. Its dissemination is being actively encouraged by the Australian authorities.

465 [464] Use of money: Before the eruption, money played a very minor role in village life. It was earned by men who were away for limited periods working on plantations. Money wages on plantations were, and are, extremely low; wages for agreement labour in 1962 were, for instance, $39 per annum for the first year of which $12 is paid out in monthly installments and the rest at the end of the year. In the second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages are a great deal higher than this; most Sivepe men who were absent on employment worked on urban jobs. At the same time, a regular income was derived from coffee.

464 435 438 Sivepe men were simply not interested in jobs at plantation rates of pay, nor were they interested in "carrying" jobs for the government even though wages in that case were higher. They were also indifferent to selling their garden products on the Saiho and Popondetta markets, as there were frequent gluts, prices were low and carrying goods to market was an unduly arduous task.

436 511 Money was used largely to buy goods in the luxury rather than the subsistence sphere. Money was essential for payment of taxes and for a minimum of clothes, often acquired cheaply at jumble sales. Otherwise, it was used to buy tobacco, food for feasts, kerosene mainly used for feasting occasions, cartridges for hunting, again for feasts. Among the larger purchases made were radios, pressure lamps, bicycles, tools; all these, however, could never be paid for with current income. One had to depend on special windfalls: a gift from a relative in town, a bride price. Money was not only for spending, however; it was also for saving. I shall refer to the organisation of corporate saving later; in addition a number of Sivepe men had savings, of the order of $10-$20, sometimes more, hidden away. This money was kept for special occasions, but in addition, the very fact of possessing it was regarded as important. I was once told that Europeans were powerful because they had money; the Orokaiva could get power only if they too possessed savings.

459 556

436 437 If money was definitely highly valued, it was only to a limited extent regarded as a standard of value. If we accept some model such as was suggested by Salisbury (1962), we may say that the Orokaiva have three spheres of exchange: a subsistence, luxury and ritual sphere, while bank notes are used for special, often ritual occasions.

[461] In the acquisition of luxury goods of any kind, including money, the Orokaiva tend to weigh the benefits gained by them against their cost in time and unpleasantness and against the benefits that can be gained from other investments. Money is, in general, wanted only if it can

be acquired without too much hard labour or threat to status, and only if its acquisition does not involve foregoing other more highly valued benefits. Thus, the market has a great elasticity of supply: when the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

Comparison with Inonda: In this section I have discussed a small number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

In the attitude to money, and to education, Inonda was clearly split between the traditionalist and the modern faction. The modern faction was, in fact more money-oriented than were the Sivepe people.

177 The clearest example of this was in the computation of bride price. 436 As I mentioned, the Sivepe people, in calculating the value of bride 583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepe people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of 184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepe to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepe 621 and Inonda are of different population size, Sivepe having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that [619] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timunu and modern Sivepe still contains roughly the same family alignment except that the members of the Timunu clan are now calling themselves

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] With regard to interpersonal relations, the evacuation set up
[571] a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers" consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wasata and each man took his own rice back home, giving a

474 177 241 share to the owner of the land. This activity started some time after 1947 and ceased with the eruption of Mount Lamington. It involved "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attached by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 241 [427] The pattern of production of the Sivepe rice resembles that of the communal yam gardens. There also, several men may plant together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of [829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 [596] Today, Sivepe has three forms of economic organisation. The dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

474 plus other amounts of unknown size--enough for the projected establish-
443 ment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timumu clan, to which Rimoldi refers, were lost along with the Jegase savings.

454 In 1966, two group savings accounts were in operation. People
621 had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

474 The only cooperative effort known to me at Inonda was a regular
439 arrangement by which vegetables grown at Inonda were carted to the Embi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

571 Finally, a notable aspect of social organisation in the post-
[554] eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by
[177] Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted)
654 but only to recognise them as an effective source of compulsion. The
571 people of Sivepe, as well as Hohorita were very much aware that the
623 position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not "ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

654 731 After resettlement in Awala and other villages, the government made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 823 [852] [794] In earlier chapters, I have already drawn attention to the widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 177 [438] [628] Naturally, in the circumstances, people did not feel any pride or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Carombi which still had its pigs. During the bargaining, a Carombi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Carombi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

657 ideas concerning socio-economic development. It looked in early 1951
731 as though the evacuees would not be able to go back to their homes for a long time. The vulcanologist had recommended a large restricted area (see Map II)[A] and was doubtful when (if ever) it would be safe again for human habitation. It looked as though thousands would have to be resettled in altogether new surroundings. Such resettlement could only occur under strict government supervision; in these villages it looked as though the government might have the opportunity to introduce a new way of life: model village layouts, cash cropping, improved land tenure, better education, health services, everything in fact that developers still aim at today, except that no plans existed for the setting up of new political institutions.

(177) To what extent were the evacuees involved in plans of this kind? Mr. Kaad often spoke to the evacuees of Ilimo about his ideas concerning development. Belshaw's evidence shows that a number of Orokaiva to whom he talked were eager to embrace a new way of life and, especially, that they were anxious to get better educational facilities. He also detects a strong motive for the Orokaiva to agree to any propositions Mr. Kaad put to them: they hoped that thus they would be allowed to leave the evacuation camp earlier than if they argued back (1951: 246). Mr. Kaad himself expressed to me the view that the evacuation camps were too stressful an environment to be propitious for the teaching of development ideas.

During the time when large-scale development was envisaged, at least three persons of authority and scholarly qualifications were asked the Territory administration for their opinions. Belshaw (1951) advocated a general broadly-based socio-economic development programme, in line with modern theory of applied anthropology, but far beyond the resources and administrative skills of the Territory at that time. Keesing (1953) recognised that the resettlement had been "remarkably effective" as a means of reducing "cultural trauma" caused by the eruption. He further commented: "Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions." Plant, an anthropologically trained administration officer, studied some of the practical consequences a wholesale resettlement policy would have. He worked out an elaborate scheme whereby groups would be resettled in villages where there were local groups with the same clan name--a procedure which the thought would be in line with traditional social organisation--but he also showed that resettlement outside the restricted area, as defined in early 1951, would probably lead to land shortages.

Shortly after these three studies were made, an unexpected event changed the situation. The vulcanologist found that the active, paroxysmal stage of volcanic activity of Mount Lamington had ceased after less than two months and hence, a large part of the restricted area could be resettled long before he had earlier been led to expect.

A [See Cat. 116, pp. End Map 2(A)-End Map 2(B)--Analyst]

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken 731 to introduce a few innovations which, it was thought, would improve 242 subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepe or Inonda. I myself had brought a spade for the garden I established in Sivepe, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [229] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption 731 would have destroyed taro seed stock, but this fear proved unfounded. 134 The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed 731 according to a ration scheme based on the census figures. Each village 657 constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

653 a council responsibility. While the rebuilding of the arterial road
[991] from Popondetta and Kokoda was an expensive (and seemingly interminable) responsibility of the government, the side roads became the council's responsibility. Similarly, the government built the major hospitals while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of $8 for men and $1 for women. This is the only personal tax directly
[689] levied among Orokaiva village people and has replaced the government head tax. Its collection was not a government but a council responsibility, although defaulters could, of course, be brought before a magistrate and sentenced to a term in a government jail. Councillors explained to the villagers that the taxes they paid went to pay for their roads, aid posts, water supplies, etc. The government hoped that villagers would be more ready to pay their taxes if they could see tangible local benefits to justify them. One effect of the system was that villagers became very interested to see that as much as possible of the tax money should be spent in their own locality. They rapidly developed a strong propensity for parish-pump politics. When I visited Sasembata district first, there was little evidence of any council projects in the Sasembata wards. People objected to paying
[661] their taxes: they were not getting anything for them. Pressure resulted in roading improvements and plans for a comprehensive water supply for the area. Councillors who did not fight successfully for such causes were liable to miss re-election.

[961] The head tax manifestly acted as a significant economic incentive. A man who grew no coffee and earned no money could not pay his tax. Even if a man could not be bothered harvesting all his coffee, he would certainly harvest enough to pay his tax. Some men who had no coffee took plantation jobs a month or two before the tax was due. I noticed this in two cases at Inonda; most of the Sivepe men had coffee
[667] gardens and did not need to work outside. For the first time, tax defaulters in 1966 were actually jailed for two months. In one village, Kendata, there were as many as 50 defaulters who fought the police and ran into the bush; in Sivepe there were four, all without coffee gardens.

177 In spite of this tension, people generally supported the ideology
623 of the council: they wanted the "new age" and they wanted the kind of services that were supplied by the council. At the same time it was never forgotten that behind the tax-gathering councillors stood the government police, armed and ready to make arrests if the councillors were resisted or attached, as sometimes happened. Those who did not pay and tried to escape arrests were judged by the conformists to be ignorant men, unwisely looking for trouble. On the other hand, people deeply sympathised with them. People wanted the "new age," but they did not like the element of compulsion that went with it. They re-elected the councillors who compelled them because they held the Australian authorities, not the councillors, to be directly responsible.

Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
that must be carefully distinguished: attitudes to individual government
servants, to the power structure and to the values represented by the
563 government. As for attitudes to individual public servants, I have
no evidence for any change in attitudes. In a subtle way every white
man with whom Orokaiva come into contact is tested according to various
criteria: fairness, courtesy, willingness to reciprocate gifts and
services, willingness to eat with the people (a rare phenomenon,
this) and above all, his behaviour in the constant battle of wits
and inner strength in which Orokaiva delight. A man such as Mr. Kaad
who was a good man by all these tests, was remembered with much affection;
others, though excellent by the criteria of the Australian public
service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
a rather harsh history of earlier contacts, beginning with the murderous
● 177 régime of Monckton and culminating in the 1940's in the Japanese
conquest, the Allied re-conquest and the public execution of a small
band of Orokaiva who had sided with the Japanese. The welfare
orientation of the Australian government was perhaps never massively
demonstrated before the eruption of Mount Lamington. At the present
time this welfare orientation is well understood but the Orokaiva fear
the Australian power to compel their compliance. They use what
resources they have to keep this power within limits. They have found
that it is usually fruitless to disobey Australian commands openly,
but power can often be made ineffective if orders are misunderstood
or forgotten or evaded. Furthermore, it is a general rule among
Orokaiva to withhold information systematically from the tsupa. It
took me some months to learn that even the simplest information I
had about the Orokaiva was often unknown to Europeans, not because
they were not interested but because nobody would tell them. On a
few occasions when an official asked me a question I would say that
any of his "driver-boys" (that was how they referred to their drivers)
could answer it and the official would answer: "Nobody will tell me.
They all say they don't know." This is indeed a potent weapon against
colonial administrators.

It would be wrong to assume that this attitude is directed
657 against Europeans in general, because there was great variation in
177 the treatment of individuals, and also, it is not directed against
the values Australians are trying to introduce. The avoidance of
communication is largely, I think, a device in the power struggle
between the colonial government and its subjects. The Orokaiva do
what they can to avoid being dominated. In this context, the setting
[623] up of local government councils was a great step forwards. The councillors
do not meet with the same communication bar because the people know
that they can control them through the electoral machinery. Hence it

657 623 177 is the councillors who are most effective at communicating whatever they understand of European values and the Australians have been happy to reduce direct contact with the people to formal dealings in which intermediaries can definitely not be used. The Orokaiva say that it is only since the council was set up that their thinking began to change. While this is not to be believed, it would be correct to say that an ideology of change developed only through the mediation of the councillors. The humanitarian work done immediately after the eruption did not lead to ideological change because it did not set up effective mediating institutions.

this became the core of a new community. At the time of my arrival the European mission sister had been replaced by a Papuan assistant medical officer who, though from another tribal area, strengthened the Papuan missionary group. There were ten teachers, a priest, a deacon and the medical officer, together with their mostly large families--a population that must have been close to 100. Also on the mission station were the boarding school students, adolescents from various districts (their number was around 60), some of them related to the mission teachers. It was customary for the teachers to adopt the children of relatives to be educated on the station under their care. This further added to the Papuan mission station strength.

In this atmosphere the European staff, though indisputably in command, were severely handicapped, as usual, by their lack of information about what was really happening on the station. Not infrequently, I was better informed about this than the head teacher, because the station gossip would flow very easily into Sivepe whereas the mission staff were careful not to tell the head, for fear of inviting instructions they might not wish to obey. The big building projects, such as the hospital, were organised without his knowledge; the workers suddenly appeared and started work; after a few weeks pulled down the building, not being satisfied with it, and started again. They only approached the head when they wanted nails.

To the Orokaiva of the district, the real power struggle was not with the head but with the mission staff. This does not reflect on the head personally; indeed, shortly before my departure, he became a candidate in the Higaturu Council elections and was elected councillor for the ward which includes the mission station, on the votes of surrounding villagers. This very fact, however, indicates that he was not involved in the power rivalries surrounding the station; it was expected that he would be effective in negotiating with the council for water supplies, roading improvements and such like and that, being virtually a stranger, he would not upset existing power relations.

The power rivalries arose because the mission station Papuans regarded themselves as definitely superior to the villagers. The Motu-speakers especially thought of themselves as carriers of a higher culture than that of the Orokaiva--better dances, better loincloths, better headdresses, better pots, and above all, a long association with the mission during which their district had become altogether more civilised than the inland people. It was because the Orokaiva were ignorant that they had to depend on Motu mission teachers.

This boasting troubled the Orokaiva especially because it had some factual basis. Much present-day Orokaiva culture is borrowed from the coast and coastal art and technology is superior in sophistication. Gona was the birthplace of the Anglican mission of the Northern District; hence, the coast has produced a disproportionate number of priests and mission teachers, the most prominent of whom is the Bishop who is himself a Gona man. In these circumstances owners of land surrounding the mission station saw some risks in making

permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among the Orokaiva, though the women do certainly at times act as a solidary group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[462] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

535 About three months before our departure from Sivepe, a mission
[123] teacher told me that his wife intended to teach Sivepe women a coastal
[197] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Koogohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside the concern of our present project. It is very clear that some basic
● 177 notion of Christian montheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

177 I have referred several times to the tendency to place ancient
[788] ritual under the protection, so to speak, of the new God. Rituals
[775] connected with the taro cycle were performed at Christmas and Eastertime, preferably on the mission station. While the beliefs about the ghosts

of the dead remained basically unchanged, Christian burial rites and cemeteries are generally used in the belief that they are efficacious in controlling ghosts. Girls were "shown to the people" after initiation, preferably on the mission station during the Easter dances. The kere which was a women's initiation dance, was also performed on a mission occasion (the celebration of St. Barnabas Day, in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form of initiation ritual to the Orokaiva? This extramural activity, performed in the dead of night, signified a little more than the intertribal status rivalry analysed earlier in this chapter. The text of the songs gives no obvious clues to their significance at the present time. Though it was made up of at least four or five languages, due to diffusion of the cycle through the Northern District, I managed to collect a translation of most of it during a tour of Port Moresby when we visited knowledgeable members of various Musa River tribes. The songs evoke a series of phases in a woman's life, stating symbolically her role in initiation, courtship, marriage, childbearing and feasting. They are very rich in symbolic content which is not relevant here. But they contain no message that can be related to any modern millennial or cargo cult. During a visit to Uiaku, in the Collingwood Bay district, my wife found that the old women in that village knew the songs but not the younger ones. This points to diffusion from the Musa to the Collingwood Bay district some decades ago. All this evidence confirms the mission teacher's own explanation given to me that he introduced this cycle in order to keep old traditions alive, in order to give more strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by the performers especially in the very first dances. They might at that time be doubtful about dance movements and words but not about the demeanour appropriate to the impersonation of spirits. At the very first practise, even the young girls knew the right bearing, intonation and rhythm. This was not truly the introduction of an alien ritual; the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to lend it the ambiguity that was evidently intended. It was not the purpose of the mission teacher to set up this pagan ritual in opposition to Christianity but rather to bring about its continuity in a Christian order. I have already shown in earlier chapters that the Christian dispensation is conceived as not only a religious but also and importantly a socio-economic one--that Christianity, wealth and wage labour are perceived as part of the same complex. If it can be made to accommodate women's initiation ceremonies (after jettisoning, of course, those aspects to which the clergy takes exception) future generations will have the strength of the forefathers. This desire for greater strength, in a physical and numerical as well as spiritual sense, was often expressed to me.

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bande, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivepe, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
● [177] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, with a slight
decline in population (to 45 in 1962 and 41 in 1967) and a decline in
628 the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 villages (Garombi, Soroputa, Hohorita). When New Sivepa was built it
614 had become a familiar procedure and was simply copied from other villages.
616 It is an interesting adaptive institution, and the Orokaiva answer to Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far
● [177] was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepa but by no means in all the villages.

614 — Rimoldi classified the Jegase clan into four lineages (Berekipa,
613 Sesewopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He further distinguished two Timupu lineages (Hajepopa, Pekuma), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

Inonda, in the same period, has developed in the direction of
621 a one-clan village. In 1951, out of 12 households, eight were of the
614 Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepa, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is
whether earlier students of societies depending on shifting agriculture
are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what
potential labour surplus there might once have been has already been
taken up by labour migration of male adults (which, for his sample, he
puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines
economic activity as comprising only the production of food, clothing
and shelter, and argues that, given the existing socio-economic matrix,
all the other activities listed on his time charts (see Table 5)
should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands
has resulted in a saving of two-thirds in the time allocated to specified
axe-using tasks and who concludes from this that a vast potential labour
surplus is thus created. Waddell shows, by a quantitative study of
the allocation of time within activities, that only 38.5% of the time
allocated to an activity is actually given over to the main task, and
even if one includes ancilliear, and other productive tasks, this
raises the proportion to less than 50% of the total time devoted to
that activity. (See Table 17.) As steel implements are used for only
a portion of productive tasks, they did not, Waddell argues, make a
crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
241 in an excellent position to discover this as at the time of his survey
seven of 15 households surveyed engaged in cash-cropping; he was therefore
able to inquire how this affected the time spent on subsistence food
production. As it happened, the median time spent on subsistence
gardening by the whole sample equalled precisely the median time
spent by the cash-cropping households. (12.6 hours per week, vide
his Table 5:5) It appears from the table I derived from Mr. Waddell
(my Table 17) how the cash-cropping families fit in this extra work:
they spend a great deal less time having rests and meals. While non-
cash croppers allocate only 28.4% of the time within activities to
their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell
gives interesting explanations which account for part of this discrepancy,
even if full allowance is made for these, the fact remains uncontestably
that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
most acculturated and industrious members of the community. This
● 177 seems to suggest a considerable heterogeneity in working habits as
between the members of the community. The author clearly shows this
heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepe never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepe today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepe did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19). Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. How in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timunu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are
[535] predominantly in the 35-45 year age group whereas Seho is predominantly a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
● [177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in
[167] 1945, and the custom of looking for wage labour outside the district did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

its efforts upon what were then the Jegase and Timuru clans, to the exclusion of Seho. When my wife and I came to Sivepe, Jegase at once claimed us, built our house for us and was ready to perpetuate the familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of Jegase did not actually make much difference. Seho grew just as much coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to Standard 6) at Sasembata School; so far only one has gone further. One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated elite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

184 The difference in pattern between the two villages may well be explainable by the influence of the improved schooling and the close 177 contact with the mission station found in Sivepe, in common with many of the other resettlement villages. These improved facilities may to some extent be regarded as social consequences of the eruption, as they were developed in the resettlement villages in the wake of resettlement to replace the earlier facilities at Sangara.

434 Money income has risen rapidly since the war. About the time 184 of the eruption, six of the present inhabitants of Sivepe were away on jobs outside the village. Not only are far more Sivepe people absent today on wage work, but the village itself has a steady income. At the time of Rimoldi's study, his sample was said to have spent annually $410 while its income for 1962 totalled $328 or $28 per household. Today this has risen greatly; the 14 coffee gardens, with over 4,000 trees, produced some 6,000 pounds of coffee, worth in all about $1,000; gifts from absent wage-earners over the year totalled at least $500 and other income (paid work, sale of products, etc.) at least $200. This makes up a minimal total of $1,700 or an average of $60 per household. I would not be surprised if actual total income was as high as $2,000 but it is very hard to obtain reliable facts. There is no doubt, however, that the coffee gardens have made Sivepe substantially wealthier, while in Inonda only the government driver has substantially improved his position since 1962, when Inonda's average household income from paid work, produce and gifts was [465] $33 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular salary of about $700 p.a. stands out in both villages.

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be [881] made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. [583] Similarly, the inclusion of money in bridewealth is an innovation which, [436] once made in a homogeneous community, is bound to become standard practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at
798 Inonda, and only one, as far as I can find out, in Sivepe--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

871

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jesembats school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

657 177 I have not yet referred to the deepest acculturative influence that was absorbed before the time of the eruption, namely the abolition of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [484] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

[731] Developments since 1951 provided increasing opportunities for gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16 will show that the net [166] population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. [158] It seems likely that this increase should in part at least be due to [165] the improved health services: the monthly clinics, with the possibility 167 of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. [464] Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timunu) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had [614] been residents of Garombi before they became labour migrants. There were, at the time of the survey, no labour migrants of the Seho clan. [177] The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals who seemed to play a key role in development. The study of these key individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilance when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

177 large extent to the bloodbath of these early days. It was he to whom,
657 above all others, the compulsive show of obédience Orokaiva make to white men can be attributed. It is therefore interesting to inquire what was the influence of Papuan culture on Monckton.

In order to show the atmosphere in which Monckton operated I shall quote a minor example (bypassing some cruder and more obvious passages of his books in which he describes shootings, floggings, tortures, etc.) where a sorcerer is brought before Monckton's court, accused of such crimes as causing a virgin of a distant tribe to produce still-born twins and causing the moon to alter its course and colour. Monckton advised the accused, so we are told, to plead "not guilty." "But I am guilty. I should not be much of a sorcerer if I could not do a little thing like that." In such cases, says Monckton (1922: 98). "The sorcerer would get a fine or a few months' imprisonment," Monckton explains that the New Guinea administration made witchcraft a crime punishable by law as a means of establishing respect for white man's law in the eyes of the Papuans.

[431] Monckton was very well aware that he was thus lending himself to a reciprocal transaction in which each side proffered the other a certain measure of prestige. The white man was most graciously given by the sorcerer a demonstration of his respect for the white man's law; in return Monckton (quite consciously, by his own admission) helped the sorcerer to "establish his reputation as a man capable of marvelous things, a man to be feared and conciliated with gifts" (ibid.: 99). On what basis, then, was the white man's law respected? It was on the principle of exchange which dominates and has always dominated Orokaiva social relations. (On this topic, see my doctoral dissertation.)

Monckton always bought his loyalties in this precise fashion. On one occasion (1934: Chapter 1) he invoked Papuan help to kill off a few troublesome marauders on the tacit understanding that the captors would be allowed to eat them. He appointed as his constabulary persons of high rank from various districts so that the Papuans would be afraid to kill the constables: their death might induce their own people to start a tribal war against the killers. In return the constables knew that their own villages would be quite safe from Monckton's bloodthirsty attentions. Furthermore, Monckton tells us that he was in the habit of making presents to his constables, paid for out of his own pocket, over and above whatever was supplied by the government. With these presents, he bought a kind of personal loyalty which was over and above that owed by the constables to their employing government. On one occasion his constabulary marched into Government House to protect Monckton while he was the guest of the governor.

Monckton admits that he made himself rather unpopular with the officials of Port Moresby. Neither the crudity of his methods nor the means by which he procured the special attachment of his praetorian guard were regarded as proper in a British officer. Some of his exploits,

657 such as his threat to chain some recalcitants to corpses they had
177 refused to bury, never entered his official despatches; other exploits led to a series of inquiries and finally to his being edged out of the service.

While Monckton's methods were never practised again by senior officers in the Northern District, the tendency for the field men to become involved with Orokaiva ways of thought and thus incur the displeasure of Port Moresby has persisted. The Higaturu Council's land registration scheme, dreamed up by Popondetta public servants, is a case of that tendency. In this case land title deeds were issued which had no validity in law but which the district commissioner would protect with his strong right arm, such as Monckton would have done most efficiently. The arrangement was repudiated by higher authority in Port Moresby. Very often relationships between white employers and Orokaiva exist on two levels: an official level where wages are paid for work done and an unofficial level where the Orokaiva receives some small extra gifts and rewards his employer with some special loyalty. These "buksheesh" are a regular pattern for which some allowance is made when calculating labour costs.

657 A second and completely different type of expatriate was Mr.
731 Kaad, who was in charge of the Ilimo evacuation camp. He neither relied on threats of dire punishment nor on the Orokaiva system of exchange bargaining. He came to the Territory in 1942 with the Army and stayed to become a patrol officer. He was soon seconded with the
[966] Department of Labour. It became his task to educate expatriate employers whose methods of treating their labour conflicted with the government's plan of improving relations between Australia and the Papuans. In particular his task was to advocate better methods of labour control than corporal punishment which had been extremely prevalent. Orokaiva informants told me that in fact corporal punishment on plantations ceased after the second world war. Mr. Kaad later became an Assistant District Officer. At the time of the eruption he had just come back from leave to move to a new post, when he was chosen for the delicate job of looking after the evacuation camp.

His task at Ilimo, as he saw it, was to help the recovery of people who "had their world shattered." He was greatly in sympathy with the new policy of promoting Papuan economic development and tried hard to make the resettlement villages he set up into foci for development. At the same time he was always flexible and ready to place the interests of recovery from shock above the interests of reorganisation. Shortly after, he was crippled in an accident. In 1967, he was teaching at the School for Pacific Administration in Sydney, training future generations of patrol officers in techniques of social and economic development which he practised before he knew them theoretically.

657 Most of the other expatriates who had dealings with Sivepe and
177 Inonda moved quickly into anonymity. The roles played by a succession of government and mission servants were undoubtedly key roles, but their contact with the particular villages was too casual for their

177 individual names to become part of village history. The anthropologists
[657] who had been in the two villages, under the auspices of A.N.U., were
[125] all very well remembered by name. When we included in a questionnaire a request for the names of Europeans our informants knew well, we were given a list including all the anthropologists, by their first names, and nobody else. This was almost a standard reaction. I am not at all sure that this close acquaintance made the anthropologists into key figures in development or that they were more influential in socio-economic development than the mission and government servants who, though anonymous, may have achieved more in this direction. A.N.U. personnel have made presents of coffee hullers, both in Sivepa and Inonda; one anthropologist taught his key informant in Inonda to drive a car, as a result of which this man found a permanent job with the administration. These certainly were tangible moves in the direction of economic progress.

177 I found that among the Orokaiva, unlike the New Zealand Maori,
123 I was never asked my opinion when some community decision was to be made nor was any greater interest displayed in the views of my predecessors. I was usually told when something had been decided (and decisions almost always seemed to be reached in my absence) and naturally I always expressed pleasure at receiving the information. The pattern was different only when I myself was directly involved. On the other hand my participation in community activities was sought and much appreciated. Our behaviour was closely observed and some minor innovations in housekeeping (the making of washing lines, airing of blankets, etc.) may be due to my wife. Everybody seemed concerned that our presence should not disturb the precarious balance of power--and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as key personalities, it is because Orokaiva attach special importance on the kind of relationships that are thus established with whites. I have already mentioned some hints we received that we might be returned ancestors; even if imagination does not go so far, the daily relationship established with the anthropologists comes close to what Orokaiva would regard as tolerable and human. It is in the texture of life that grows up between the population and the anthropologist rather than specific innovations that the importance of his visit lies; perhaps without realising it, he nurtures an ideology.

875 One of the significant mediators during my time in Sivepa was
657 the head teacher of Sasembata school. His case will provide an example of the dangers of generalising about expatriates who are in fact an extremely complex group very imperfectly known. This man, aged about 28, had led a somewhat bohemian life in Australia, as a photographer, broadcaster and advertising agent. His decision to join the New Guinea mission was in part a conversion, in part a search for identity, in part a search for an assured place in the world. He married a mission teacher met in New Guinea. He found, in fact, that none of the fixed expatriate categories quite fitted him: he had absorbed, while in

875 Australia, enough of contemporary thought in literature, art and allied
659 subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepo, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 Though membership is open to persons of any ethnic group, it
666 seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election
[123] approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority.
[829] The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

177 environment, though he fulfills that role as well, as we have seen in the case of the introduction of the kere. The cultural values he has the duty to transmit belong to the expatriate culture of which his own knowledge is bound to be somewhat superficial. He therefore has three cultures to manipulate, not merely two.

799 177 The most senior, and by far the most influential of these mission people was the pastor. Unlike the others, he did not permit himself to gloat over the superiority of coastal culture; in my own interviews with him I found his attitude towards Orokaiva culture to be consistently one of respect. He would point out differences between Orokaiva and his own people, but unlike the descen and the teachers, he would do so with objective detachment. He felt very much the burden of his role as the bcal representative of God.

At the time of the eruption, he was a mission teacher, but shortly afterwards, he was sent back to Dogura for some years' training for the priesthood. Upon his ordination, he was sent to Sasembata in 1955. At that time only a small minority in Sivepe and the other villages had been baptised. By 1963, he had drawn almost everyone of his parish area into the church. He told me that this was not a trend peculiar to his parish; in 1963, there had been a great many baptisms throughout Orokaiva territory, and pagans had become quite a small minority.

A paradox in his position, to which I have already referred, was that though people were very cooperative in church work, attended his services, his special meetings, provided labour and materials, accepted his adjudication in quarrels, had him bless their guns and always showed him the highest respect, they would not give him land even on a semi-permanent basis. I have explained what I think to be the reason for this, but it was hard for the pastor to accept. He was threatening to leave and go to another parish where he could get some land. To him this was as symbolic as to the Orokaiva: it seemed unjust that after doing so much and being so familiar with the language and culture, they should insist on treating him as a stranger. Indeed, if he had settled as a private person, it would have been very harsh.

In Inonda, there were currently no key personalities of this 177 799 category. Religious services were conducted by a local man. The retired Sangara mission teacher, however, had definitely been a key personality from the time of the eruption until his retirement in 1959. Though he was an Orokaiva, he belonged to a tribe which had been the most dangerous hereditary enemy of the Inonda people and before whom they had had to flee from their traditional territory around 1910.

The teacher, whose baptised name is Moses, was called Kuamale at birth, his namesake being his father's father. The latter, so I was told, was named in "the old way": it was the name of an enemy who had been recently killed. Moses went to school, was trained as a mission teacher in Dogura, and took up teaching in 1922 or 1923. He taught in his native district (Sangara) until the Japanese invasion, after which he closed school and went into the bush with the rest of

177 the people. When the Japanese were gone he went back to his old village;
799 around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.
[562] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are
[431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowl-
[754] edgeable about the holding of feasts and their magic and that he feared

[177] his powers of black magic would be undermined by the church if he joined it. It seems likely that it was in part his influence which [797] made Seho less inclined than Jegase to make outside contacts.

[754] One of his sons, however, did leave the village to join the A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

177 This son, baptised under the name of Lawrence in 1963, is now about 50 years of age, proud and withdrawn, and is both the feast-623 leader and the "committee" of Sivepe. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission [426] personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepe to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single [665] daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepe, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepe. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

623 Lawrence was comparatively well off, largely because he was a
177 good coffee producer, but also because he received bridewealth from
471 three daughters, continuing gifts from his sons in law and from the

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled
two corporate savings accounts, one of $158, the other smaller and
secret; people had full confidence that deposits were entirely safe
in his care. Though he would never express himself in such terms, he
was actually leading his people into a state of solid and (hopefully)
economically viable peasantry.

I asked him what he thought were the qualifications of a leader.
171 A leader, he said, must be very smart and understanding, have a lot
623 of garden and make a feast; then the people will join him. They don't
appoint him but he stands out by his farming, gardening, feasts. He
[157] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegase. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence
[559] disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

124 was much less marked when I took him with me to Inonda. He was a
123 bachelor who had a penchant for courting girls he was, for some reason,
157 unable to marry. While we were in Sivepe, his girl friend, though
belonging to the Seho clan was rather too closely related to him on
her mother's side. Her father was Lawrence's elder brother and the
[532] Seho clan generally was strongly opposed to the union; they therefore
treated the affair as incestuous. The mission had wanted to send
Leon for training in hospital work. He had been doing some of this
at Sasembata, and it would have suited him. His father opposed the
idea, considering that his knowledge of English, etc. would be too
useful to lose. When I came, his calculation proved right, for Leon's
presence and employment drew me, for some months, into a position of
much dependence on that family. Leon was the only young man who did
not join in the drum dances, and who never sat with the other men.
Perhaps, his bachelor status partly explains this, but another bachelor
of the same age did not keep away to nearly the same extent.

177 One difference between Inonda and Sivepe was that in the former
184 place there was only one family through which adaptive ideas and
decisions were transmitted to the community, and in practise only one
man, whereas in Sivepe, there was a variety of influences: the Seho
leader, the two older, and in many ways totally different older Jegase
leaders, and several younger people each with their own fund of experience
which helped them to interpret a changing social situation. This
difference results not only from a different organisational pattern
(based respectively on the "big man" and the equality ideology) but
also from the were difference of size. It may be argued that some at
least of the multitude of avenues through which the modern world was
made accessible to Sivepe was due to post-eruption measures in the
resettlement villages. Of the leaders discussed here, however, not a
single one (except the two young interpreters who were scarcely leaders)
[797] was educated in the post-eruption period. They may have been influenced
by their close association with the mission; if so, it is hard to say
to what extent this association explains their present attitudes. One
may safely say that the association with the mission at the present
time reinforces the change-directed ideology of Sivepe leadership.

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 The Orokaiva of today has to act in conformity with two
177 conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 There is, for instance, a taboo on using the names of affines.
178 When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 The temporary labour migration of young men (who sometimes
167 leave wives behind in the village) continues a traditional pattern of
178 behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were
178 before: there must be a pig or pigs, bark cloth, ritual valuables such as shell necklaces and feathers, cooking pots, but in addition
583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 There used to be a ceremony to which a boy was subjected at
179 or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

121 Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

177 At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined.
[154] In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

852 In an earlier chapter I described a ceremony for children
177 about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the
859 village boundaries. When the children came back to the village (which
177 was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little
124 different for my interpreter who had been to Martyr's School and who
177 therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

867 Children were trained by their parents in the prevalent system
869 of custom and belief, as modified by recent changes; they maintained
177 their traditional regard for their elders, not regarding their school knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly
602 expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed awy from home would soon have to be shared out if they returned to Sivepe. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

693 The councillor, the court and the police are only a last resort in serious quarrels. I saw a councillor enter a dispute once, playing a
629 mediating role between disputants from two villages, but without playing more than an advisory role. One quarrel was taken to court, but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the new Garoubi arrivals. She and the husband fought and had to be
626 separated as the lady had an axe; the domestic dispute soon died down but the Garoubi woman laid a complaint for slander with the police. Before this came to court, the wife had been roundly condemned by almost everyone in the village; she had repented, had gone round the village to signify her regrets, and been as contrite as her pride could possibly allow her to be. The court let her off with a reprimand. The episode, far from suggesting a flagging of Orokaiva traditional social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
629 Western civilisation, have been quick to see the advantages of a judicial system providing an impartial arbiter in disputes, to whose decisions both parties will defer. At the moment, this western judicial system is an additional resource of Orokaiva law, without undermining its existing institutions.

trespassing there. Bishop David recalled, in my interview with him, how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which several groups set up new villages independently. Today, the population of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Sasembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the Sangara people had become rather rapidly acculturated. By the criteria used in the present study, acculturation had progressed rather more rapidly than at Sivepe, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepe: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

It was the general hypothesis of this comparative study of ten displaced communities in the Pacific that displacement would lead to accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the relocated community but lacking the experience of relocation. In the case analysed in the present report, the experience of displacement at Sivepe was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A [See Cat. 116, p. End Map 12--Analyst]

to the pre-eruption village. Furthermore, the control community differed in minor ways from Sivepe both in ecology and in traditional social structure. Certainly this report has pinpointed a number of differences in the acculturation history of Inonda and Sivepe; it has probably been rather less successful in determining whether these differences are due to the displacement experience (and subsequent government and mission initiatives) or to the ecological and cultural differences which existed between the two communities at the time of the eruption, and which were further accentuated when Popondetta became the administrative centre, thus placing Inonda appreciably closer to the centre than Sivepe.

I made a study of Hohorita because I felt it would perhaps provide more cogent evidence. Here resettlement followed a cataclysm during which over 90% of the population died; furthermore, the ecology and culture of Sangara was very close indeed to that of Sivepe. I was struck, during my study of Hohorita, by the evidence of far more rapid acculturational changes than I found at Sivepe. Hohorita, to put it briefly, produced more intellectuals and also more coffee than other communities that had been less afflicted. This seems to suggest I might have done better to take Sivepe and Hohorita as my sample communities, as I would have been able to show more striking differences in spite of greater ecological and cultural similarities. I rejected this idea because my study would then have been methodologically anomalous in the framework of the total project in which the nine other investigators had used a different research strategy.

Nonetheless, the study of Hohorita is of very special anthropological importance as it shows strikingly how a primitive community reacts and adjusts to a cataclysm. The fact that the presence of the Australian government and mission provided the community with some additional adjustment opportunities hardly detracts from the interest of the case. It is impossible to do justice to the subject in this epilogue. Not only would this take too much space, but the time pressure under which this report is compiled also makes it impossible. As Hohorita has a population of 348, the genealogies, lists of educational, occupational, residential data, the statistical evidence of the inter-village relationships are all most complex and will need to be analysed out of 650 pages of field notes. These notes are at present no more than lists of names related to individual families. All I can do here is to give my own preliminary impressions of the material, coupled with general descriptive data. Nonetheless, I hope that I can thus show some of my findings from Sivepe in a broader setting and draw attention to a few basic issues.

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timumu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

177 731 [777] to the helplessness of the survivors, the extraordinarily strong influence that was exerted upon them immediately after the disaster by Bishop Hand (resulting in many becoming mission teachers, the building of a church of especially high quality, scrupulous school-going by the children and other signs of compliance), stronger pressure than usual to succeed in skilled occupations, a more profound reappraisal of ideology under the impact of disaster as well as church influence, and finally the availability of more cash-cropping land than at Sasembata, as a result of depletion of the population.

In Sivepa, where little loss of life occurred, the pattern of changes differs from that in Inonda, but the difference may well be largely explainable by the superior facilities introduced, especially by the mission, into the Sasembata area as a response by the Anglican authorities to the disaster.

177 369 The paradox of Papuan culture change is its dependence on migration out of the rural areas. The striking changes of ideology seem to result always from travel and contact between the men who have been away and those who have stayed at home. In the district itself, the progressives are always those with outside experience. In Hohorita, these progressives had more varied and deeper experiences (perhaps because the home base was destroyed) and those who were urbanised continued constant contact with the village. Rural development has opened up some new economic opportunities, and the improvement of school services is opening up further opportunities, but it is only the returning traveller who understands these opportunities and leads his people in realising them. Relocation provides opportunities for village renewal and these opportunities are seized upon by the natural innovators within the villages (the returned migrants) to hasten the coming of the New Day.

eruptions has subsequently continued, and reports as of December, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

An observer passing through or flying over destroyed areas was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organized to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. Those groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

By that time, too, a whole series of policy problems had arisen which both the field staffs and the Australian authorities at Canberra and Port Moresby were trying to resolve. Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

731 152 [823] mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

731 361 199 The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualized bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallized opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

731 657 361 199 The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organized Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

731 liberately endeavored to keep everyone busy, and the men
659 spent much of the time in work gangs (e.g. Monday, Tues-
361 day and Wednesday were usually devoted to house-building;
177 Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

731 2. Reasonable law and order was being maintained in the
659 new settlements, under the eye of a considerable force of
518 the Papuan Constabulary sent in for the emergency. Oppo-
[625] nents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

731 3. Not least among the uncertain factors is that of sorcery.
754 According to those who manage the settlements, fear of
514 coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

731 4. On the economic side, no sound basis seems in sight
361 for establishing large permanent communities in the com-
241 prehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more
[242] intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As
731 in socio-political affairs, the responsible organization and
659 leadership would in general have to be provided from out-
[241] side, with the dependence relationship that this implies.
[177] Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Iliino camp.
731 In large settlements the technique of handling domestic pigs
231 and chickens, vital sources of protein, is always a difficult

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[799] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

731 To the extent that this paper presents a correct interpreta-
179 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p. 22-B]

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages, such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that the European exchange partner did not have a great deal to offer the Orokaiva, because not even money was essential. Conversely, the fear of the trouble the white man might cause was not so great as one might suppose. Certainly, there were horrifying stories about what the white man might do if angered, but the Orokaiva had since learned some simple rules telling them how such anger could be most conveniently evaded.

Until World War II, the relationship between the Orokaiva and the government followed this general pattern almost entirely. The government made the regulations and the Orokaiva did the unavoidable minimum. World War II began to change the pattern of this partnership. Australian and American soldiers moved into the Northern District to drive out the Japanese. They camped in the bush, they shared their food with the Orokaiva, they accepted Orokaiva hospitality, they generously distributed what supplies they had to spare. The white soldier, unlike the civilian, lived in a style much closer to what the Orokaiva consider human. He laughed and joked in the presence of the Orokaiva; he put on no colonial pretense.

After the war, the Australian government changed its policy in the territory, suppressing corporal punishment of employees, emphasizing economic development in the villages, improving schooling, introducing local self-government on a limited scale (and later political representation in the House of Assembly), offering Papuans jobs of some responsibility, and discontinuing the type of village policing that made all reforms dependent on the enforcement of regulations. The village constables, whose job was in practice confined to reporting infractions of the regulations, were replaced by elected officials (local government councillors) who are indoctrinators rather than policemen. They harangue the people with a diffuse message covering a wide area of social and economic development. They seek to secure acceptance for new ideas, so that people will genuinely believe in the usefulness of changes they are making.

When I visited the Orokaiva in 1966–1967, I found a great deal of ideological discussion, the key concept being *iji eha* ('the new day, the new age')—a new way of life based on the economics of coffee growing and wage earning, the social amenities of improved villages, school education, Christianity, avoidance of violence, and, generally, cooperation with the mission and administration. I

was amazed to see how closely the councillors' harangues and other speechmaking in the villages corresponded to official policies. Many of the advocated ideas were not being put into practice, but generally the transition seemed rather smooth. There were conflicts between the Orokaiva and their mentors, in some instances irreconcilable ones, but it seemed that consideration of these conflicts was being deferred because there was evidence of steady improvement, as long as coffee prices would only keep rising.

Informants, when asked when the 'new age' had started, all replied that it was after the Japanese were driven out. The eruption was never mentioned as the beginning of the 'new age'. It was after the war that the money economy became important and men began to take jobs outside the village for protracted periods. It was then that money became a necessary part of bridewealth so that, as an initiatory ritual, every young man had to have earned some. It was after the war that village improvement started seriously, as the history of individual Orokaiva villages shows.

The eruption of Mount Lamington in 1951 came a few years after these beginnings, at a time when the impact of money was not yet great, though the government and mission had had time to communicate the new order they sought to establish and to press for changes the Orokaiva were not too ready to accept. The eruption strengthened the message. On the transactional level, there was the large-scale help offered by the Europeans after the eruption. This was done in the most dramatic way possible, by planes dropping their riches in great abundance shortly after the disaster. Certainly such a massive display of concern in a moment of need did much to enhance the image of Europeans as desirable exchange partners. This display was followed by the organization of the camps and by the widespread introduction, especially at Ilimo Camp, of activities that were symbolic of the 'new age'.

Daily church services were conducted, all children were given regular schooling, adults were educated in a number of new agricultural and technical skills, good medical services were provided, and regular food and clothing distributions continued. New ideas on housing, village layouts, and women's handicrafts, lectures on how trade goods are manufactured in Australia, the presence of a strong development-oriented and numerous European staff—all these elements must have amazed the Orokaiva villager of 1951,

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

THE SELF AND THE PRODUCT:

Concepts of Work in Comparative Perspective

ERIK SCHWIMMER

Introduction[1]

121 The cross-cultural comparison of concepts is part of the anthropologist's trade. Whatever the concept, we find ourselves asking whether anything resembling it exists among the people we study. The concept presents itself very often in English: law, government, religion, friendship, reciprocity. A school of thought often arises which holds that the concept is not universal but confined to a limited set of cultures, inevitably including our own. Such a suggestion is usually opposed by others who propose definitions of the concepts so as to make them look universal. The concept of *work* is clearly of that type.

There are good reasons for thinking that this concept is a product of 18th century Europe and the industrial revolution. Work as a concept is based on the assumption that, from a certain viewpoint, all economically useful activities are fully comparable by a yardstick transcending their diversity, in other words, that labour has become a commodity and that the technical and administrative direction of that labour has become part of the same kind of commodity. This is a perspective with which we have become familiar through Mandeville, political economy and Marxism (Baudrillard 1973; Dumont 1977). On the other hand, it has been shown that the Ancient Greeks had no corresponding concept (Vernant 1965) and it is not difficult to show that the Melanesians did not have it either, until they came into contact with western capitalism. One of my Orokaiva informants was categorical on this point: "The people of olden times," he said, "did not take up work (*pure*) for it was only Jesus Christ who gave them work (*pure*) to take up."[2]

[461] [177]

On the other hand, some very prominent authors have presented 'work' as a universal concept. One of them was Karl Marx to whom the concept 'work' was just as much a universal as man's supposedly perpetual 'transformation of nature to human ends'. In his theory all modes of production have their 'labour force'; what he opposes is

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Time is therefore a highly inappropriate measure of useful activity in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

A great man, or a manager, is not always a gardener. He may be a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not dark like that of Hesiod or of Adam's curse. An Orokaiva informant once recorded for me on tape his version of the relevant portion of Genesis:

> "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.
>
> He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."
>
> Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . ."

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
magical and juridical sense. Often he also leaves behind a wife for
167 whom he is saving brideprice but who meanwhile must be looked
after by his relatives. Money sent home therefore covers not only
feasting contributions but also the function of *simbari*. This is
not because village people would not perform such services free
of charge but because, when a man earns money, those who help
him earn that money are entitled to their share.

If we look only at the relations of production migrants have in
169 their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their
labour but this product lies entirely outside their conceptual
[571] universe. Yet these migrants avoid proletarianization in the full
sense because they continue to have a stake in the village
environment, which has its own economic, political and ideological
base.

435 Our remarks above apply similarly to the village cash-crop sector.
With the exception of coconuts, the use value Orokaiva see in
European cash-crops is either very limited or non-existent. Coffee
and cocoa are classified as non-foods, rubber latex as an unusable
substance. Even the coconut, though an important food when
fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of
these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those
who are pressed for time tend to give priority to coffee and to
partially replace their plantings of taro with 'German taro' –
less valued but less laborious.[21]

Growing coffee is not considered pleasurable like growing taro.
245 When suggesting to an informant that coffee trees have a sweet smell,
824 I was firmly told: "*We* think the smell is dreadful". Such feelings
461 go to show that the division between the spheres of use value and
exchange value is not purely analytical but corresponds to a con-
ceptual boundary between two models of life and work, and that
Orokaiva try to keep this boundary clear. Coffee is grown because
it takes far less time than it would to grow subsistence crops for
the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence
crops – surplus to requirements – is in fact sold in local markets
for consumption by local people, but growers take the same care
with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus

●[177]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[22] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

Our discussion of the culture hero Jesus Christ was necessarily incomplete. For he did not institute merely payment for labour – a real gift to man but, as we have seen, somewhat limited in scope, but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

101 122 1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.

461 ●177 2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: '*Iji aramiko ambo ainge esora. Amina pure mo umbae. Amora pure re Keriso na ikena umbasi ea avo.*'

114 3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.

121 4. M. Panoff reports that *kuma*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious "big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa;*
773 *donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena.*
177 *Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa*
539 *eto i gaipi oa, pure jirembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagoru: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earoru, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earoru. Eto donda matu nunuga ena avo indie iruetera avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto india. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue iroru."* Robert, Sivepe, 1966.

694 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravoru."* Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puvuna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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S: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966
(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pamba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .
>
> In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, the commitment of productive effort outside the range of the security circle all tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.
2. For the location of Garombi, see Fig. 10.
3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.
4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 528 616 Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more [177] than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised [361] the tendency to dual organisation.

361 178 614 583 First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

614 621 166 616 In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

621 614 616 I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or [582] village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationsip to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

178 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [73] [62] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt Lamington (see Secs b. and e. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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[1] Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

[2] Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterized as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

62 [622] The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[595] [1] Cf. kiti iigari (p.30).

[2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepe. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepe people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

166 [342] Individual mobility is still high, as we have already noted. Mobility is facilitated by the fact that material for housing - wange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

361 [621] The patrol of 1948 which found this area 'literally a mass of small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

361 178 621 [177] When people began to leave the evacuation camp there was a spontaneous trend, which was encouraged by officials, towards building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

621 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

Chapter 5

The land and economic development

433 a. Shifting cultivation and residential stability

Under the present system of horticulture the amount of land surplus to current subsistence needs is small and imposes limits to expansion of commercial agriculture.

Williams (1928:154) regards the system of subsistence cultivation as wasteful because it requires such a large area per person. However, the practice of shifting gardens frequently and for short periods on scattered plots does give maximum yields and maintains soil fertility. Brookfield and Brown (1963:166) point out that no successful alternative to land rotation has yet been proven for subsistence agriculture in the tropics. Population pressure and soil fertility are not sufficiently serious problems on the slopes of Mt Lamington to warrant the measures which Fisk (1962) recommends in other circumstances.

[361] Keesing (see Chapter 3, Section e) argued that the rotation of land adversely affected social stability. But the settlement pattern which developed after the emergency shows that there is no necessary connection between dispersed settlement and either the local population density or the method of bush fallow rotation. Some very large villages formed after the eruption (e.g., Soroputa and Kiorota) retained large groups of immigrants who owned no [166] gardening lands near at hand. The present high rate of mobility between other villages, most of which are much larger than before, is not closely correlated with the shifting of garden sites. Among the Chimbu, by contrast, land use is more intensive, but frequent shifts of residence between scattered hamlets are related mainly to gardening needs.

● 178 With the introduction of cash cropping the Chimbu pattern of 361 settlement is becoming more permanent (Brookfield and Brown 166 1963:98). There is little significant evidence either to support 241 or oppose our belief that the planting of individual coffee plots since the mid-1950s has not been associated with a drop in

178 361 166 241 individual mobility among the mountain Orokaiva. We especially doubt the generalization that the introduction of tree crops induces the fragmentation of villages into small 'bush settlements' which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

[241] [178] [177] Norton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 614 Norton expresses a view widely held among government officers[3] that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

(a) Initial contact

177 The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

714 177 178 [491] [438] By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

794 not necessarily leaders in the old authority structure but often
177 people with particular experience of white rule (e.g., policemen).[1]
178 Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

178 The ending of inter-tribal skirmishing, which directly affected
657 the social roles of the sexes, also extended the physical range of
36 interactions open to individuals and resulted in the proliferation
[721] of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

241 From its beginnings the mainstay of government policy was the
[657] encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton,
[466] tobacco and rice were all tried; however, owing to a fall in prices,
[434] all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern
[433] Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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1 Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

2 Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

[73] [133] than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

[178] [171] The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

[177] [177] [65] (iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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1 Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

2 See Salisbury 1962:338.

3 For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at [166] that time. Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

4 Belshaw (1951:248) makes a similar allusion.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

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[1] In the past they sometimes lasted several days.

511 Only one man owns a mosquito net and there is only one transistor
[207] radio in the village. Some of the older people still wear tapa
[291] cloths but new ones are seldom made now. The more common form of
[178] dress is a pair of shorts, a skirt or a laplap, the skirts being
[177] mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

411 Two men in the sample own shotguns, costing $58.75 and $59.75.
[435] These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

342 None of the houses conforms to the traditional Orokaiva style,
178 but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 A creek running beside the village provides the water for bath-
487 ing, cooking, laundering, washing dishes and pulping coffee. Paths
514 are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 Inonda lands run from the low plains (200 feet above sea level),
134 beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with
[31] the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

511 the slightly wider range of property evident in Inonda. Sivepe has slightly higher monetary assets than Inonda ($18.96 and $18.52 per household) and a slightly higher percentage of cash in hand (26.9 per cent compared with 21 per cent).

438 178 The substitution of imported items for equipment and property traditionally produced within the village has eased many subsistence tasks such as clearing bush and gardening. Traditional cooking utensils, which took time to make and were easily broken, have been replaced by metal pots and dishes. Guns (and torches) have brought more reward for less effort in hunting, and fishing has become easier with goggles and elastic-propelled spears. Mosquito nets and bedding have made sleep more comfortable. Storebought goods and introduced plants have made possible a more varied diet, particularly during the dry season. The improvements have been on a small scale and have required the diversion of effort into non-traditional channels to obtain the necessary cash. With the exception of the trade store owner in Inonda, few people use cash to make large productive investments (discounting the substitution of steel for stone tools) in village-based activities.

535 Another 30 per cent of the time is devoted to traditional
177 dancing at events inspired by the external agencies, in particular
[527] church festivals and public holidays; 18 per cent is devoted to what
might be called 'institutionalised parties', for example, the
[178] celebration of a church wedding or the opening of a women's club,
again events associated with the contact situation; and a mere 14
per cent is devoted to feasting of a traditional nature, such a
practice now apparently being relegated to a minor place in Orokaiva
society.

All ceremonial events tend to be concentrated around Christmas
when the gardens are in full production, and involving at that time
as much as 6.2 hours per man-week in a single week (week 1).

461 (b) The external sector
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All commercial production, together with those activities directly
associated with the presence of the external agencies (for example,
church services, formal meetings, etc.), fall within the external
sector of the economy. Together they account for 10.6 hours per
man-week, of which only 3.2 hours (spent in cash cropping and paid
work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is
devoted to coffee production - 1.3 hours per man-week - although
only five households are directly involved in it. The buying season
[221] is determined by the OCGS to coincide with the flush and extends
from March to October. There is no off-season buying and coffee-
producing activities are confined to this period, particularly the
months of April through to July. Clearing of the gardens and any
pruning are restricted to the start of the season to facilitate
access to the trees. Most harvesting and processing is done early
in the season, falling off gradually as stocks are accumulated, the
main flush passes and the opportunity to sell is awaited.[2] While
1.9 hours per man-week were expended on coffee production for the
whole of period I, virtually all activity was confined to the last
six weeks when 4.2 hours were expended (2.0 hours on harvesting and
the balance on processing). During period II only 0.5 hours were
devoted to production, with a further 0.5 hours to marketing per
man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

The one age group not considered in the survey is children. Customarily the parents delegate various tasks to them as they get older, but the current picture is somewhat complicated by the fact that over 80 per cent of all children in the area receive at least a few years' primary schooling. Since the type of education provided has little direct bearing on village life or economy it is not uncommon for such children to profess some disdain for village tasks and the extent to which they assist their elders frequently depends upon the degree of parental authority. Children up to the age of about ten years normally play around the village in the morning and evening, going down to the creek during the hottest part of the day, when they might do a little fishing. If they accompany their parents to the garden they are left in the garden shelter or under the shade of a tree and the older ones are directed to look after the younger. Otherwise the only jobs they appear to do regularly are fetching water and tending the fire, although the older girls are given such household tasks as washing dishes and also attending to infants. Boys over the age of about ten years may hunt, build traps in the forest and do some of the more hazardous jobs like scaling trees for green coconuts, while both they and the girls are called upon to assist in pulping coffee. For those attending school, most of these activities are restricted to the weekends and holidays; even then they may resist their parents' requests for assistance, preferring instead to do a little hunting or fishing for their own amusement or to picnic together.

561 [871] 857

<u>The weekly pattern, daily routine and duration of activities</u>

It is customary for ethnographic surveys to devote a section to the description of a typical working day and, in its treatment of the Orokaiva, Williams' account (1930:21-31) is no exception. What he considers to be a normal routine comprises an early breakfast from the cold remnants of the previous evening's meal followed by the departure of family groups to their gardens where they pursue their various tasks. By noon these are completed and most families are back in the village to rest in their houses for an hour or two. 'The real activity of the village commences at about three o'clock' with the preparation of the evening meal by the women, the men meanwhile restricting themselves to sedentary tasks or conversation. This is eaten near nightfall and a period of conversation or informal entertainment follows until everybody retires to sleep. Such a routine may be modified by climate, ceremonial activities and the occasional demands of the Administration and recruiters.

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Regardless of whether the daily routine in the 1920s fully conformed to Williams' description, the present pattern is substantially different, not only for those activities which are directly related to the increased commercialisation of the economy and interaction

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepa people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [796] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the housecowner alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

Iemba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Uruvu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Iemba was absent for 85 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

Iemba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites.

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector.

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine.

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Nevertheless it is incorrect to apply Salisbury's proposition (1962:216-20), that the change from a stone to steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks, as further evidence for labour availability. Apart from the fact that the proposition itself is not based on quantitative data and must be regarded only as a hypothesis, if, for the sake of discussion, the factor of 3 be applied to time spent in clearing, fencing and construction (the main axe-using tasks) in Sivepe and Inonda, an additional 10.8 and 11.6 hours per man-week respectively would be required for the work with a stone technology. Since 10.7 hours in Sivepe and 10.0 in Inonda are already being directed to the external sector each man-week virtually all the labour time made available as a result of this technological change is in fact being utilised.

While there is no evidence from the activity patterns to suggest any seasonal conflict in the labour requirements of cash and subsistence cropping there is, nevertheless, some inconclusive data from both villages to suggest that a substantial extension of cash-producing activities would conflict with the requirements of the subsistence sector. In Sivepe the processing of coffee - the most labour intensive of all cash cropping work - and the harvesting of rubber typically occur early in the day and so before the start of the normal daily routine, suggestive of the fact that extra time is 'made' to carry out these tasks.[1] At Inonda it appears that where a household head engages in full-time employment for more than two or three weeks the family finds difficulty in maintaining its food gardens and so meeting all its obligations.

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Given that the development of cash cropping bears a direct relationship to activity patterns the data suggest the basic issue to be not one of absolute availability of labour but rather of the organisation of labour and time. The hypothesis is suggested that in a primarily subsistence-oriented economy, those cash-producing activities which do not demand a significantly different and longer work routine will be preferred. The basic feature of this routine is that the activity need not be pursued to the exclusion of others and each can be interrupted at will. So the Orokaiva working day (and week) encompasses a wide range of tasks, each pursued for only a relatively short period of time. As with the Aitutaki villagers of the Cook Islands, 'commercialization has led to few appreciable innovations in the cropping system, land tenure, technology or labour' (Johnston 1967:68).

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The present relative adjustment of cash to subsistence cropping may only be a temporary feature of the village economy and the fact

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[1] However, a higher yield of latex is also obtained by tapping early in the day.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

433 that it has been reached at all among the Orokaiva is probably due both to the level of out-migration into the permanent labour force and to the local opportunities for wage labour and contracting and so the ability of village residents to meet many of their needs for cash by other means. In the sphere of activity patterns therefore, viability of the traditional system remains largely unimpaired.

[178]

561 the ones with the largest surplus of production above their immediate household needs. This pattern, in association with the particular roles of the oldest and youngest age groups, appears to support the widely held proposition of individuals building up 'credit' within the community to draw upon in their old age. The data might equally be interpreted as suggesting that most of the transactions are concerned with personal aggrandisement and only the middle age groups are capable of achieving this. Thus, in the exchange of labour services, there is a significant outflow from the 15 to 24 years age group and an inflow into the 55 years plus - that is, from a group where labour is the one abundant resource to another where it is scarce and needed to achieve subsistence - yet the 35 to 44 years group also registers a net inflow. Much of the labour received by the 55 years plus age group was connected with sago-making and this same group accounted for half the sago distributed. Since the individual concerned, within this age group, was unable to collect his own breadfruit and had no other way of reciprocating other gifts, offering one of his sago trees proved an effective way of settling his obligations and, at the same time, meeting his own dry season food requirements while expending little of his own labour.

[556] Each of the three other age groups plays an important role in the flow of specific resources. The 45 to 54 years group largely controls the movement of pigs, one of the main traditional indicators of wealth, but not of products associated with the monetary sector. These latter are divided differentially between the 35 to 44 and 25 to 34 years groups, the first being concerned primarily with cash cropping, from which its revenue is mostly derived and therefore its access to storebought goods, while the second relies heavily on remittances and parcels of goods from relatives in wage employment.

In effect the three middle age groups control the circulation of 'wealth', with that of the 25 to 34 years group being founded almost exclusively on non-traditional goods, that of the 45 to 54 years on traditional, and that of the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (garden produce and cash crops).

<u>The relationships between exchange and the socio-economic status of transacting partners</u>

177 Within the total economic system, of which the subsistence villagers comprise the basic stratum, a number of distinct socio-economic categories can be identified with each playing a distinctive role in the pattern of exchanges. On the one hand there are the institutions or organisations associated with the expatriate community or directly promoted by them - the Administration, the OCCS, the Anglican mission, the trade store, the market, etc. - with which transactions are of a formal nature and operate between the individual villager and others in their roles as members of an institution. On the other

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178 166 there are those indigenes who have moved temporarily or permanently away from the village economy - to take up blocks of land as ex-servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly [434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home [465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees [434] and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather [438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

437 produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's [431] sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

437 Other major exchange relationships operate with affines, matri-
561 lateral and patrilateral kin and are typically restricted to members
[602] of the individual's age group, for example, cross-cousin, wife's brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, who were of both sexes and stood in a defined relationship where [178] each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

437 In effect, regular exchanges operate between members of one's
602 own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[601] [1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] - . surpluses (and their counterpart, shortages) are frequently the
[574] result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end
[431] of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence sector shows a pronounced seasonality (see Table 11:6). This is
221 largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A, [See Category 512, pp. 166-167--Analyst]

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Two largely unrelated agricultural systems are practised side-by-side, with cash cropping (or the alternative cash-producing activities) utilising labour time surplus to the requirements of the subsistence sector. Productivity in both types of production is low and, furthermore, any expansion in cash cropping is not necessarily paralleled by an increase in productivity or reduction in subsistence agricultural activities.

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The Administration's extension policy is concerned both with 'raising the level of subsistence in the villages' and 'introducing the economic means of supporting a higher standard of living (DASF 1959). While such a policy might promote development with the least possible risk to the producer, it has a direct bearing on both the quality and degree of individual involvement in commercial activities.

One agricultural extension officer has noted that 'The subsistence farmer's involvement in cash-cropping has...added to the complexities of his decision-making and lays increasing emphasis on his role as a farm manager. He now has to make more complex decisions and choices about what to produce, how to produce and how much to produce' (Reed 1966). Individual specialisation is, effectively, discouraged because the mechanism is not being developed for an exchange of subsistence produce which might permit some people to concentrate exclusively on cash crop production. Problems of a lack of technical knowledge and equipment are intensified in situations where cash and subsistence cropping are pursued simultaneously. The essential homogeneity of the village remains therefore largely unimpaired. The nature of the people's contacts with the external economy and the expatriate community only serves to reinforce it. These contacts are few and tend to be formal and innovations only permeate through with difficulty. Villages tend to be isolated from the main centres of expatriate activity and, in consequence, people find it difficult to participate in those cash-producing activities, such as wage labour, which provide a regular source of income. The basic functional discontinuity between Orokaiva village and expatriate settlement tends to sustain a situation where money is used primarily to exchange 'exports' for 'imports' and has little impact on the rest of the village economy; while the apparent control which expatriates exercise over all successful economic diversification and other developments tends to discourage initiative within the village.

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The problem of stabilising the world market situation for cash crops, or at least of cushioning the producer from the price fluctuations, cannot easily be resolved, but some of the other problems are amenable to direct intervention.[1] Given their long and mixed

[1] As exemplified by the apparent success of the Ombi-Tara scheme (see Morawetz 1967).

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When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Genesis of the Yega Scheme

The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was re-opened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5) A. This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of *blocks was based on the number of men who originally showed* interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and *early 1963 many* young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead,
[439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to
[435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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178 point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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434 Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Picking	Pods*	Net wt. lbs.	Amount received $	Picking	Pods*	Net wt. lbs.	Amount received $
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Dewhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).
**Bapa man, not member of Yega Scheme.

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178 Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

Work patterns

Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3 illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In 1952-3 occurred the major amalgamation of dwellings into Beporo village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew rapidly. Table 4 shows the estimated distribution of population

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[TEXT CONTINUED ON PAGE 42]

Table 4

Distribution of total Yega population by villages in 1960, 1962, and 1964

361 162 103 161

	Village name	1960 estimated	1962 November	1964 July
A.	Coastal			
	Surilai	60	52	61
	Niniyanda	44	9	5
	Kanaunje	15	17	11
	Basabuga	17	19	14
	Tarebosusu	7	10	Nil
	Banumo	14	8	10
	Gombe	19	15	19
	Siumbago	9	13	Nil
	Beporo	335	275	164
	Gona Mission	7	6	18
	Subtotal	527	424	302
B.	Inland			
	Gatara	6	6	6
	Konje	Nil	6	97
	Otobejare	Nil	8	13
	Imangada	Nil	3	8
	Mumburada	Nil	17	47
	Ononda (D.A.S.F.)*	Nil	5	1
	Ononda	Nil	41	66
	Binjapada	Nil	51	61
	Jamberoda	Nil	Nil	15
	Subtotal	6	137	314
	Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

Figure 1

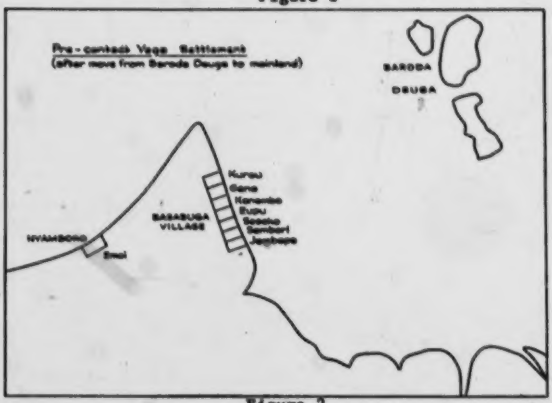

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Figure 2

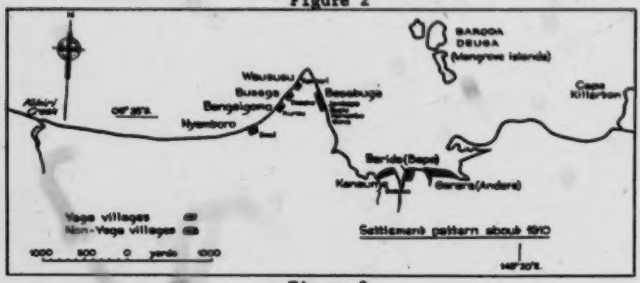
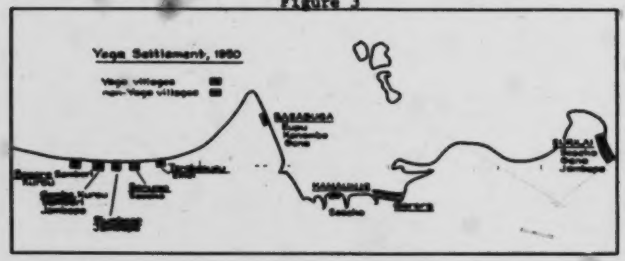


Figure 3



361 166 followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa blocks. After establishing their homes in Ononda village most of these villagers cleared rain forest in the Ononda area, thus establishing their cultivation rights to nearby areas of land. 361 166 241 423 Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

● 178 245 The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

245 In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 Work on this scheme had not progressed far at the time of observa-
472 tion because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 As with the Yega Scheme, the advice and help of Agricultural
[242] Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started
[484] clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk
[487] along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 The people concerned in the scheme lived in various places.
36 Most lived in the Konje area, one at Mumburada, one at Gatara,
166 while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 The clearing of rain forest for planting blocks with permanent
245 tree crops whose produce was to be sold for cash was a radical
178 departure from traditional Yega land usage. The Yega Scheme in-
423 corporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 (continued)
413 planted, in one case the wife was, in one case the father's sister's
17 husband, in another the half-brother by a different father and in
19 the last case, the father of a half-brother.
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(iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

[433] (ii) the production of crops for sale;

[242] (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

[361] (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

continues, a pattern of farmsteads set in consolidated, individual holdings may well replace today's villages and hamlets with their fragmented, widely-scattered landholdings. 361 178

Acknowledgments

This paper is portion of a wider study of Yega land use and settlement. The author gratefully acknowledges assistance and advice from colleagues in Australia, from officers of the Administration in Papua and from members of the A.N.U. New Guinea Research Unit. Field work was financed by research grant from the University of Sydney. 128 122

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Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural Officer, Mr Cockshott. In mid-May he commenced a weekly co-operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the co-operative movement was regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

In pre-European times, according to present-day informants, the most important feasts held by the Orokaiva people were associated with initiation, marriage, death (though apparently not birth), and the enhancement of prestige. Feasts were also held to mark the transfer of land, the re-establishment of peace between persons who had been quarrelling, resumption of residence after a prolonged absence, and the lifting of prohibitions between a man and his mother-in-law.

It is impossible to know with any certainty the scale of feasting prior to European contact for, though a detailed study of these people was made in the late 1920s (Williams 1928 and 1930). Government patrols had brought tribal fighting to a halt some years before. It is therefore quite likely that, with less time taken up in warfare and greater freedom of movement assured, the feasts and ceremonies of that day were more elaborate than those of the pre-contact era.

While feasts are still held today, the relative emphasis given to each category has changed considerably. Feasts associated with initiation are held on a greatly reduced scale and often omitted altogether, but those relating to marriage and death remain important. The taro festivals, the main function of which appears to have been the enhancement of prestige, are still held in some places but have been abandoned in others. The other feasts listed above are still held occasionally, with the exception of those relating to the lifting of prohibitions in relation to mothers-in-law.[1]

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[1] Since the above was written, such a feast was held by a family from this village but now living on a government resettlement scheme about two miles away. The atypical circumstances of the new residence pattern may have caused the revival of the feast (known as peikari) because when the daughter of the settler married, the new husband was brought to live with them to help with cash cropping. This is contrary to the customary pattern of virilocal residence. Living in such close contact with his mother-in-law probably made the highly formalized relations between them difficult to maintain. The feast was thus invoked to sanction more relaxed relations between them.

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [177]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

504 The two latter contributions require further explanation. Of
431 the 70 pounds brought by the wife's kin, 40 pounds were given by
602 a parallel cousin whose husband recognized a distant relationship to the host, and who had worked as a mission teacher with him. The remaining 30 pounds were given by a clanswomen (whose exact relationship we did not determine) who lives in a village a few minutes' walk away, and who frequently visits the host's wife. This woman's husband recognizes a distant relationship to the host. Of that given by the daughter's husband's relatives, 60 pounds were contributed by a mother and daughter whose husband and father had spent his life as a work associate of the host in a neighbouring village. The remaining 20 pounds were brought by a clanswoman whose kinship link was reinforced by her residence in Inonda and her marriage to another relative of the host.

With the exception of taro supplied by the host and his wife jointly, all taro was brought by females. They were all kin of either the host, his wife or his eldest daughter's husband. But of the many relatives of these people resident in the vicinity, only five contributed. Three of these had work associations with the host and the other two had subsidiary kinship links to the wife as well as being coresident or nearly so, and enjoying frequent social interaction with the host and his wife.[1]

504 In former times, we were told, the men now engaged in paid work
178 would have gone hunting to obtain meat for a feast, and would have constructed more elaborate shelters and platforms as well as erecting poles for the stacking of food contributions in such a way that they could be measured and compared. The role of the men in the preparation of this feast was negligible by comparison.

504 The host intended to kill a domestic pig for the feast but it
431 escaped after being shot. A European contractor whose labourers had been invited to attend gave a pig which he had purchased for $30. The only other fresh meat was a large hornbill donated by the leader of the clan with which the eldest daughter's husband lived.[2] These two men have engaged in many exchanges over the past few years.

504 Of a total of $9.83 worth of store foods supplied, $2.60 worth were purchased by the host himself from his savings, $7.08 worth

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[1] In addition to the above food, the husband of a daughter of the host used the occasion to give a pig and vegetables to one of his wife's mother's clansmen who had not shared in the bride-wealth previously given by the husband for his wife. The gift was taken back to the donee clansman's village for distribution.

[2] This man does not live with his own clan, but with that of his classificatory brother's wife.

by the eldest daughter's husband from his current earnings, and $0.20 worth by the husband of another of the host's daughters from his current earnings. The only other foods contributed were three bunches of bananas and sixteen lengths of sugar cane by the host and four bunches of betel nut and one bundle of betel pepper by the eldest daughter's husband and his son. 574

It is apparent that the men's traditional role of supplying fresh meat is being replaced by an obligation to supply store foods. In addition, informants confirmed that the range of men participating in the contributions had decreased markedly. The reason for the large donation of store foods and betel nut by the eldest daughter's husband was that as his family had all been killed and his property destroyed in the Mt Lamington eruption, he had not paid any bride-wealth at the time of his marriage. 574 N8

A blackboard was displayed bearing a notice to the effect that all persons who were in receipt of wages were expected to contribute fifty cents and all others twenty cents. The host sat at the end of the food table and collected the cash (while a research assistant recorded the details of contributions and contributors). While most visitors expected as a matter of course to make some offering, they were not prepared for a fixed fee. There was therefore some delay and it was not until it was announced that those who did not have the full amount could contribute whatever they had that the people could be persuaded to make their contributions and partake of the food. Over half of those present had no money and consequently refrained from eating, though some close relatives who did not contribute were fed in the background. Several visitors privately expressed resentment at being asked for a money contribution.[1] 574 431 [126]

Contributions were received from 64 persons and ranged from eight cents to a dollar. Of a total of $12.15 received we were able to account for $10.88. Those who had brought food did not bring money with the exception of the labourers from the contractor's camp on whose behalf their employer had contributed a pig, and the husband of one of the host's daughters (who had given twenty cents worth of food) who gave ten cents in cash. Over half the money ($5.78) came from 31 persons who had no kinship ties with this village but were employees of European planters and of a contractor in the area or were indigenous settlers from a government resettlement scheme nearby. Of the balance, $2.10 was given by 15 relatives of the host from three different villages and

[1] The labourers and settlers had been specifically invited to attend, but I am not aware of the extent of invitations sent to other villages.

£2.90 by 16 relatives of the host's eldest daughter's husband (the one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

The majority of the persons present attended because of their residence in neighbouring communities and claimed no kinship links with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

Transfers of property at this feast differed markedly from those in feasts of the traditional type. Firstly, the food was contributed by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

In this village many of the older people wear only loin cloths made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

[1] See p.74.

even have been sufficient qualification for admission to a group, but without precise and comprehensive genealogical information this cannot be asserted. It is possible, for example, that some households could trace approximately equivalent but very distant genealogical relationships to both bride and groom, and that place of residence then determined the group with which they were aligned. 583 621

Williams (1930:137) describes a marriage payment typical of the mid-1920s. It included no cash and the traditional valuable would have been worth only $10.00 at 1962 prices. The traditional valuables in the bride-wealth described here were worth about three times as much and in addition $80.00 in cash was included. The people clearly regarded the cash as the most important component. Those genealogically and residentially closest to the groom contributed most cash; there was considerable formality associated with the payment of it; and in discussions of the bride-wealth the dominant topic was the cash component. The bride's father and brother received most of the cash but only a small proportion of the traditional valuables and they showed little interest in the latter. Households with lesser claims generally received items other than cash. The importance of traditional valuables in marriage payments has therefore declined markedly as a result of the introduction of cash to the economy. 583 437 178

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461 apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

241 Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

245 434 Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

[196] [198]

(1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

[435] (2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first
[178] son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.

[462] Five men were employed on maintenance work on the Popondetta-
[464] Kokoda road near Ombi for the full period of our stay, receiving
[465] $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual, registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

(178) Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [198] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

a Land Titles Commissioner today has the difficult task of adjudicating the rival claims of two or more groups to the same areas of forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

The Yega parish is composed of eight named, exogamous, localised clans most of which are divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan has a different totemic emblem which serves as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

An abbreviated table illustrating the Yega social structure is given in Table 1.

[P.6-8]

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the
[191] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[198] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P 11-A]

[TEXT CONTINUED ON PAGE 12-A]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship existi between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

[P.12-A]

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14-B]

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

494 The first such experiment was an agricul-
241 tural co-operative, originated by a returned
soldier who got the idea from one of his
177 wartime Australian friends. Anglican Mis-
199 sionaries sponsored and directed the scheme
and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in
[P.14-B]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
[726] re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
the breakdown of traditional clan groupings
178 continued. The inland settlements are all
614 numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

361 He has now cleared bush and planted gardens
423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a
458 source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was
[439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two
245 cents per pound. The discouraging effect of
433 such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined
178 above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Tradi-
245 tional aspects are:
178
423 a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.
464 b) The absence of any documentary record
[476] of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in tradi-
177 tional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

245
177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[650] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423] d) The location of houses on the blocks.
e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
[166] of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accompanied in almost every instance by their wives
592 and children. This situation represents a
166 marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

434 home in the villages. By doing this, they are
431 bringing about changes in the established
176 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was
associated with the ceremonial distribution of
goods: the recipients were placed under obli-
gation to repay in similar kind at some future
date, or else lose status. Among the Yega, the
older recipients of gifts in cash or manufac-
tured goods find it impossible to repay such
gifts. As a result there has been an increase
in the prestige of young or middle-aged, edu-
cated men. An instance of this trend was the
[666] almost unanimous election, in 1964, of such
[659] a person, recently returned from paid employ-
ment, as the Yega's first councillor on the Oro
Bay Local Government Council.

(P.17-B)

48

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepe and Isoge or Kendata than with Garombi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepe are now expected to cooperate in both church and local government council activities. This is definitely a somewhat [178] novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

When the Sasembata mission station was built in 1952-1953, 797 all the villages contained in the parish collaborated. Miss White's 794 diaries show how this cooperation was organised. Miss White, who 629 was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garombi and Isoge would finish the hospital ward, Sivepe and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials and in 1966, while I was in the field, the time had come to pull 628 it down and renew it. The Australian teacher in charge of the [759] station was unable to organise this work. There was, however, a Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garombi, Sivepe, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[651] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairope, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly
● [176] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

As I am at present discussing only unorganised contacts
464 between villagers, I can give only one clear instance of changing
166 attitudes and this is in Popondetta itself. Popondetta, the new
633 administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts
[162] of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other public questions, and develop a wider interpretation of the situation
633 of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[207] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[178] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

CHAPTER IX: Adherance to Tradition

Section 1: Conflicts Between Two Conceptual Systems

The Orokaiva of today has to act in conformity with two conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

There is, for instance, a taboo on using the names of affines. When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

The temporary labour migration of young men (who sometimes leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables such as shell necklaces and feathers, cooking pots, but in addition new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

There used to be a ceremony to which a boy was subjected at or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practise,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
754 walk from Sivepa, I saw a village with new houses, built on the govern-
ment's instructions, but I was told nobody lived there except when
[361] there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
in preparation for a feast (viz. Williams) was also, according to
178 Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahambo (pre-war)	2. Pamba (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
62 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
(614) reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
42 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together,
422 usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[726] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
[628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,";
241 but more often it was "simply the lax method of horticulture
[518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site.".
361 Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During
261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
731 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[749] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

[p 18-B]

problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission teachers started elementary vernacular schooling in the camps.

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[799] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

731 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

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24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[18]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and micro-processes. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a care-free life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthrolopologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

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1966–1967, however, this fear was not mentioned to me by informants, whereas I often heard of their worries about the danger that relatives from other villages might take their land, goods, and chattels.

18. On the average, an Orokaiva derives approximately half his land from patrilineal inheritance. In accordance with British terminology, I have called this "patrimony land." The other half comes from a variety of sources, mostly from uterine kin.

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Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

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(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organizati- differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

179 more active collaboration with local groups and leaders' (ibid:172).
423 The report discusses the Land Tenure (Conversion) Ordinance, which became law in 1964, noting (ibid:171) that the legislation requires that the Administration satisfy the preliminary conditions of 'complete inquiry about customary rights and agreement of all the holders of customary rights' before it can conduct the surveys and convert these rights to individual registered title free from any customary limitations.

The experience of the Native Lands Commission in surveying land and recording customary rights 'indicates that progress in the application of this legislation will almost certainly be slow' - too slow, the mission believes, for much progress to be made in implementing its recommendations for economic development (ibid.).

It recommends 'a more flexible approach' to the obstacles to change, posed by the traditional social matrix of land customs. The Administration could well 'encourage native groups to work out their own solution to obtaining individual ownership or control of the land within native customs. The local government councils could make a useful contribution to this difficult problem.'

c. Economic incentives

433 Mann (1954) concluded his report on the area by stating that the agricultural possibilities of rubber were very good but that

> it seems little short of a tragedy that the well-intentioned efforts to introduce it as a native culture in this area have come so close to complete failure, whilst the trees remain as a source of discouragement to further development of what may prove to be a worthwhile venture for the landowners of the district.

657 The policy of establishing rubber stands under the Native
433 Regulation was well-intentioned but, as Humphries points out (1944:4), it was implemented by a single overworked man. The people of the district may well have questioned the point of having 'useful trees' when the initial forced plantings were not followed up with the provision of extension, processing or marketing facilities. Although they eventually received a small income for little effort when a local planter put this idle capital to some use, there have never been facilities designed specifically for local needs.

Belshaw maintained that even while receiving this income the people were unhappy with the scheme, not simply because they judged the price they received unjust, but because they felt it was 'wrong that somebody else should be able to exploit their own resources' (1951:14). Moreover, they resented the withholding of payments and this has left lasting impressions.

[179] [654] [383] However, different proposals had already gained wide currency; whereas the Administration had previously refrained where possible from participating in the local development of rubber, agricultural extension services have been expanded in response to widespread renewed interest among the villagers and Department of Agriculture staff have recently established a factory near Ombisusu village on the scale considered suited for economic viability. It has an optimum capacity for the production of sheet rubber on smallholdings of 20 to 50 acres under high-yielding trees.

[425] Part of the programme at Ombisusu has been the redistribution of land for development as individual cash-crop blocks similar to the Yega cocoa project.[1] Demonstration of this development has undoubtedly further stimulated local interest in rubber. It is calculated that the problem of capital for investment in such a factory, a figure of the order of $240, might be met in the absence of sufficient village entrepreneurs by the co-operative ownership of facilities by a small number of neighbouring growers.

On the other hand the European who has been buying rubber from the villages believes that 6 smallholders, for instance, each with 6 acres, could be expected each to receive a net annual income on present prices of about $360 (after repaying a loan) only if the producer were to tap daily for 310 days a year on a semi-commercial standard and produce good quality sheet rubber without direct supervision from a fully qualified officer.

He envisages instead a pilot project which would involve the planting of about 100 acres with high-yielding seed at Sasembata, for instance, where the project 'would be partially financed by some 34 rubber areas now in bearing' and, having little overhead cost, 'could afford European supervision by subsidy from the Administration'. The new land might be made available on a co-operative basis; this should be developed by labour receiving 'a minimum basic wage and the unpaid value be credited as units held in shares', whereas the villagers tapping existing stands could sell the latex at the project centre on a poundage basis.

The Department of Agriculture's budget-planning, incorporating the possibility of small loans to producers, has been carried out on the understanding that all smallholdings should be held and worked by an individual or nuclear family.

[435] Establishment costs might be reduced if the building standard were to be lowered judiciously, if standard agricultural equipment

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[1] The participants in these schemes were reported to be keenly interested in the possibility of receiving registered title under the Land Tenure (Conversion) Ordinance, 1964.

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is already in use and if, as is hoped, high-yielding seeds become available at a much lower cost.[1] The returns may be higher than this estimate since the prospective yields per acre in the area are very good. Participants would be encouraged to plant on contiguous areas near the factory. The extent to which this could be done without requiring measures such as consolidation of holdings would depend on the minimum number who could operate the facilities economically and on the area within which men could be found who were prepared to invest capital and time and to wait for returns.

The possibilities of extending such pilot schemes and of rationalizing land claims for use in cash cropping in general would be enhanced if a redistribution of the limited and fragmented land resources among the more progressive individuals could be effected quickly and economically through a consolidation scheme promoted largely by villagers themselves. Members of 2 clan branches in the neighbourhood, who claimed a remote historical link, expressed to us their desire to abandon the system of gardening in isolated places and to develop their land on a co-operative basis but the plan had not been at all thoroughly thought out. However, adjustments along the lines of the scheme which was introduced by Hohorita (another village in the council area) but which did not receive the Administration's immediate backing, would provide a valuable basis for the extension of cash cropping.

If the capital can be found and if there is a successful outcome to the plan to capitalize on current enthusiasm to promote small holdings of rubber (which promises the best returns to village producers), this could be a significant step towards providing individual producers with new scope for initiative. Although technical supervision and extension services would be necessary, such a development plan would avoid the situation which Keesing (1951:12) believed would accompany the development of village agriculture in the area - 'as in socio-political affairs... the responsible organization and leadership would have to be provided from outside, with the dependence relationship which this implies'.

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[1] At present these seedlings are sold at 2 shillings each from the nursery at Ombisusu.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [65] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [197] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCCS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

244 Apart from the few trade stores and coffee pulpers, little income is invested in large capital equipment. Herein, perhaps, lies the [171] anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

121 subsistence societies those activities which provide the mechanism for exchange are generally excluded since it is assumed that the exchanges are of little economic significance. As will be demonstrated such an assumption is of doubtful validity.

In societies where labour is not specialised and subsistence production dominates, the social and economic threads are closely interwoven. All actions may be considered economic in that they are concerned with the 'maximisation of satisfactions',[1] while the close association of the networks of kin with processes of production, distribution and consumption precludes the drawing of a clear distinction between work and leisure. While the term productive is a useful parameter as applied particularly to material life and in contrasting the nature of the involvement in the subsistence and external sectors of the economy, it comprises only part of the total economy. Production and labour in traditional societies must be considered as an integral part of this broader system, perhaps following Conklin (1957:152) who stresses that Hanunóo 'mixed swidden farming...constitutes a pattern for living rather than only a means of making a living or a source of food or cash income'.

There is a complexity of motives underlying the various activities and to suggest that work is oriented simply towards obtaining material goods and achieving subsistence is to grossly misrepresent the situation. 'The pleasure of craftsmanship, the feeling of emulation, the desire for public approval, the sense of duty towards the community, and the wish to conform to custom and tradition, all these and more find outcome in economic action.' (Firth 1959:175.) The point is not simply one of theoretical significance[2] but is of considerable relevance to a consideration of the development potential in these communities, and it is with this in mind that attention here is directed to the whole range of village activities.

● 171 433 The IBRD report on 'The Economic Development of Papua and New Guinea' considers efforts should be directed primarily to the exploitation of the two major resources of land and labour, and states (1965:40) that

[464] The mobilization of unskilled indigenous labour for development should not be difficult; the manpower potential is large and there is evidence that many more workers could be recruited for wage employment than are now at work.

121 464 The thesis that a potential surplus of labour is concealed within the New Guinea subsistence economy has been developed by Fisk. While the data which follows vindicates his main argument, two

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1 See Burling 1962.

2 For a detailed discussion of this see Steiner 1957.

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461

Table 8:1

Sivepe and Inonda: some contrasts in activity patterns
(hours per man-week)

	Sivepe	Inonda
Clearing	2.9	3.7
Subsistence gardening	13.2	11.7
(of which: taro gardening	9.1	6.6)
Other subsistence food production	2.5	7.8
(of which: fishing	0.2	3.8
hunting	1.8	2.0
sago-making	0.4	1.2)
Construction	1.6	2.0
Total - subsistence sector	30.0	33.5
Cash-producing	3.2	3.7
(of which: cash cropping	1.6	1.0
paid work	1.6	2.7)
External agencies	5.8	3.2
(of which: meetings	1.3	0.3
church work/ services	3.0	1.0)
Total - external sector	10.7	10.0
Total*	40.6	43.5

* A 't' test was applied to the mean weekly figures, to provide some measure of the significance of difference between the mean level of activity in the two samples, using the equation

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s'} \sqrt{\frac{N_1 N_2}{N_1 + N_2}}$$

where s' = the standard deviation of the population. t was computed to be 1.98; the means for the two samples are, therefore, significant at the 5 per cent level.

433
184

and was largely connected with the improvement of the Popondetta-Oro Bay road which passes by the village. In Sivepe both are of equal significance. While one girl was in permanent employment, she had assumed no major subsistence responsibilities, was single and, during the course of the survey, left the village to reside on the mission station adjacent to her place of work.

433
179

In each case several cash crops are grown, all of them tree crops. To some little attention is given (e.g. coffee in Inonda) while to others effort is restricted essentially to harvesting and the subsequent processing and marketing of the harvested product (e.g. coffee and rubber in Sivepe, coconuts in Inonda). Further

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ25 Orokaiva QJ25

433 179 attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

433 178 Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 's reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

[505] [171]

361 178 166 Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

Two largely unrelated agricultural systems are practised side-by-side, with cash cropping (or the alternative cash-producing activities) utilising labour time surplus to the requirements of the subsistence sector. Productivity in both types of production is low and, furthermore, any expansion in cash cropping is not necessarily paralleled by an increase in productivity or reduction in subsistence agricultural activities. 433

The Administration's extension policy is concerned both with 'raising the level of subsistence in the villages' and 'introducing the economic means of supporting a higher standard of living (DASF 1959). While such a policy might promote development with the least possible risk to the producer, it has a direct bearing on both the quality and degree of individual involvement in commercial activities. [654]

One agricultural extension officer has noted that 'The subsistence farmer's involvement in cash-cropping has...added to the complexities of his decision-making and lays increasing emphasis on his role as a farm manager. He now has to make more complex decisions and choices about what to produce, how to produce and how much to produce' (Reed 1966). Individual specialisation is, effectively, discouraged because the mechanism is not being developed for an exchange of subsistence produce which might permit some people to concentrate exclusively on cash crop production. Problems of a lack of technical knowledge and equipment are intensified in situations where cash and subsistence cropping are pursued simultaneously. The essential homogeneity of the village remains therefore largely unimpaired. The nature of the people's contacts with the external economy and the expatriate community only serves to reinforce it. These contacts are few and tend to be formal and innovations only permeate through with difficulty. Villages tend to be isolated from the main centres of expatriate activity and, in consequence, people find it difficult to participate in those cash-producing activities, such as wage labour, which provide a regular source of income. The basic functional discontinuity between Orokaiva village and expatriate settlement tends to sustain a situation where money is used primarily to exchange 'exports' for 'imports' and has little impact on the rest of the village economy; while the apparent control which expatriates exercise over all successful economic diversification and other developments tends to discourage initiative within the village. [178]

The problem of stabilising the world market situation for cash crops, or at least of cushioning the producer from the price fluctuations, cannot easily be resolved, but some of the other problems are amenable to direct intervention.[1] Given their long and mixed [179]

[1] As exemplified by the apparent success of the Ombi-Tara scheme (see Morawetz 1967).

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24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that the European exchange partner did not have a great deal to offer the Orokaiva, because not even money was essential. Conversely, the fear of the trouble the white man might cause was not so great as one might suppose. Certainly, there were horrifying stories about what the white man might do if angered, but the Orokaiva had since learned some simple rules telling them how such anger could be most conveniently evaded.

Until World War II, the relationship between the Orokaiva and the government followed this general pattern almost entirely. The government made the regulations and the Orokaiva did the unavoidable minimum. World War II began to change the pattern of this partnership. Australian and American soldiers moved into the Northern District to drive out the Japanese. They camped in the bush, they shared their food with the Orokaiva, they accepted Orokaiva hospitality, they generously distributed what supplies they had to spare. The white soldier, unlike the civilian, lived in a style much closer to what the Orokaiva consider human. He laughed and joked in the presence of the Orokaiva; he put on no colonial pretense.

After the war, the Australian government changed its policy in the territory, suppressing corporal punishment of employees, emphasizing economic development in the villages, improving schooling, introducing local self-government on a limited scale (and later political representation in the House of Assembly), offering Papuans jobs of some responsibility, and discontinuing the type of village policing that made all reforms dependent on the enforcement of regulations. The village constables, whose job was in practice confined to reporting infractions of the regulations, were replaced by elected officials (local government councillors) who are indoctrinators rather than policemen. They harangue the people with a diffuse message covering a wide area of social and economic development. They seek to secure acceptance for new ideas, so that people will genuinely believe in the usefulness of changes they are making.

When I visited the Orokaiva in 1966–1967, I found a great deal of ideological discussion, the key concept being *iji eha* ('the new day, the new age')—a new way of life based on the economics of coffee growing and wage earning, the social amenities of improved villages, school education, Christianity, avoidance of violence, and, generally, cooperation with the mission and administration. I

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

was amazed to see how closely the councillors' harangues and other speechmaking in the villages corresponded to official policies. Many of the advocated ideas were not being put into practice, but generally the transition seemed rather smooth. There were conflicts between the Orokaiva and their mentors, in some instances irreconcilable ones, but it seemed that consideration of these conflicts was being deferred because there was evidence of steady improvement, as long as coffee prices would only keep rising.

Informants, when asked when the 'new age' had started, all replied that it was after the Japanese were driven out. The eruption was never mentioned as the beginning of the 'new age'. It was after the war that the money economy became important and men began to take jobs outside the village for protracted periods. It was then that money became a necessary part of bridewealth so that, as an initiatory ritual, every young man had to have earned some. It was after the war that village improvement started seriously, as the history of individual Orokaiva villages shows.

The eruption of Mount Lamington in 1951 came a few years after these beginnings, at a time when the impact of money was not yet great, though the government and mission had had time to communicate the new order they sought to establish and to press for changes the Orokaiva were not too ready to accept. The eruption strengthened the message. On the transactional level, there was the large-scale help offered by the Europeans after the eruption. This was done in the most dramatic way possible, by planes dropping their riches in great abundance shortly after the disaster. Certainly such a massive display of concern in a moment of need did much to enhance the image of Europeans as desirable exchange partners. This display was followed by the organization of the camps and by the widespread introduction, especially at Ilimo Camp, of activities that were symbolic of the 'new age'.

Daily church services were conducted, all children were given regular schooling, adults were educated in a number of new agricultural and technical skills, good medical services were provided, and regular food and clothing distributions continued. New ideas on housing, village layouts, and women's handicrafts, lectures on how trade goods are manufactured in Australia, the presence of a strong development-oriented and numerous European staff—all these elements must have amazed the Orokaiva villager of 1951,

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

administrators, accustomed to secure forms of land tenure in their own culture, could not fully share the Orokaiva anxiety about losing their land.

This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

This analysis of the 'new age' ideology indicates that it is related only loosely to social and economic development. It arises directly out of political competition between the Orokaiva, the mission, and the government. Whenever new techniques appear to the Orokaiva to serve this power struggle, their adoption is advocated. We have seen that a traumatic event such as the eruption of Mount Lamington, when it became the subject of Orokaiva philosophizing, was at once put at the service of this competitive struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and micro-processes. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

   Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

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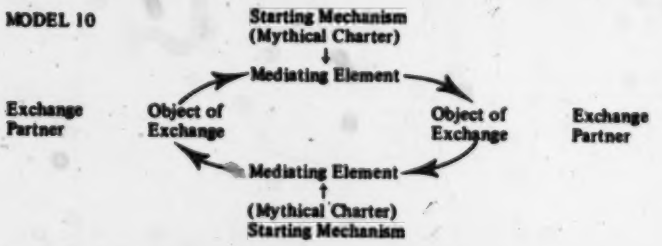
CHAPTER V:

LAND

1. *Mediating Elements*

In the preceding chapters I have set out a method for studying the working of the principle of reciprocity in Orokaiva society. I have shown in a general way how this method may be used for the analysis of traditional institutions and demonstrated that it is still applicable to contemporary institutions. In the chapters that follow I shall apply this method to elucidate a wide range of ethnographic data for some of which no satisfactory alternative explanation has yet been offered. To recapitulate, we may state the method, as set out so far, in the following provisional model:

MODEL 10



There are three main constituents in this model, viz. (*a*) exchange partners; (*b*) objects of exchange; (*c*) mediating elements.

The plan of this work is to discuss mediating elements in the present and four succeeding chapters, and to deal specifically with relationships between exchange partners in chapters X and XI. The objects of exchange, some of which have been briefly mentioned in previous chapters, tend to be institutionalised social attitudes such as repentance / forgiveness; compliance / administrative or pastoral care; avoidance / preservation from harm. Objects of this kind are exchanged in virtually all cultures. In deciding whether or not they will engage in such exchanges, individuals weigh the social costs they would incur against the social benefits they might gain. Social psychologists like Homans and Blau have made valuable contributions in this field of study. In omitting consideration of it here I do not mean to imply that it is irrelevant to anthropologists, but it is difficult to develop universal propositions about human exchange and analyse universal processes governing associations, in a work whose main purpose is the

461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] [592] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait is clearly reflected in their work patterns. The household, comprising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]

Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

[476] In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site, and as such they are normally seen to comprise less than two adults. The main exceptions are activities where collaboration is specifically

[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 115]

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed osies - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

The term hanoa, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

Viscera are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.28--Analyst]

[177] in its attitude to culture contact, is somewhat homogeneous, Inonda
[195] is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

[177] The changes which have occurred in the pattern of outside contacts in Sivepa between the eruption and the present all involved
[181] changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[179] than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepa.

[177] Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white man's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier, an interpreter is, at the very least, required as intermediary
[191] between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepa in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepa the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 177 The Orokaiva of today has to act in conformity with two conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 178 There is, for instance, a taboo on using the names of affines. When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 167 178 The temporary labour migration of young men (who sometimes leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables 178 such as shell necklaces and feathers, cooking pots, but in addition 583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 178 There used to be a ceremony to which a boy was subjected at or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen accompanying the war parties, carrying food and weapons, and
[486] sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local
[628] kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,";
24 but more often it was "simply the lax method of horticulture
[518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During
261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
731 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
176 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[199] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and microprocesses. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

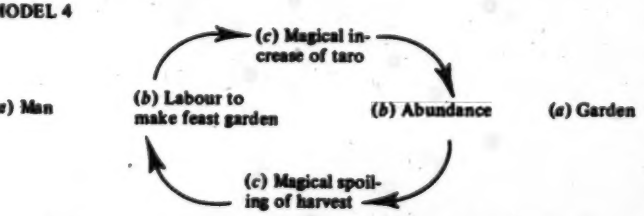
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *tno* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

   Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

[p.82 is blank]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

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Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

423 425 571

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

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Why is land appropriate as a mediating object in such exchanges of social

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *derna* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

621 possession of its own tracts of land' (1928:125). In view of the
614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

614 Fighting within the tribe (emboge), though frequent,[1] was
578 governed by restrictive conventions absent from the conduct of
[721] deliberate raids (isoro). Organized aggression was rare and the deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

[728] In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about [342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431

> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

Security of tenure

423 241 [182] [829] It is often suggested that the main benefit from tenure conversion is the provision of security of tenure for villagers who wish to plant cash crops. The Ombi-Tara people, however, did not consider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocoa and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds. [578] Fourteen people did mention that conversion and the introduction of cement and wooden corner pegs would help to prevent disputes; but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 311 361 [829] Most Ombi-Tara people saw consolidation of their previously scattered holdings as the main benefit from tenure conversion.[2] Many people drew finger diagrams on the ground to explain how conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

659 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 423 182 [361] Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.
423
182 Five of the six men who have moved with their families on to the blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

657 423 182 361 The Local Government Councillor presumed the Administration wanted people to stay in the village. He said that he would prefer to live on his block but would not move as he might be gaoled for doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 423 182 The land tenure system lies at the heart of social organisation and 'may actually define the social and economic status of individuals in an agrarian economy' like that of Papua-New Guinea (Parsons 1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to consider-
[556] ably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in such the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below.[A]

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

[A] [See Category 425--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the
[178] traditional Orokaiva inheritance pattern, under which the first son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.

[462] Five men were employed on maintenance work on the Popondetta-
[464] Kokoda road near Ombi for the full period of our stay, receiving
[465] $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy [464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

657 productivity. Consolidation of an individual's scattered plots
423 reduces the amount of time devoted to travelling and increases the
182 acreage which can be planted with cash crops in any one location.
241 The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

657 Consolidation has facilitated the provision of assistance by
423 Department of Agriculture staff, increasing the effectiveness of
182 officers. Planting, pest control and general crop maintenance can
242 be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

657 Tenure conversion appears likely to enable economies of scale
423 when the rubber trees come into production, hence increasing the
182 productivity of village labour. Economies may be gained in pro-
433 cessing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

657 to be effective, must be associated with improvements in technical
423 skills and the provision of credit, transport and marketing facili-
182 ties. That individualisation of tenure does not necessarily lead
433 to improvements in productivity has been demonstrated in many areas including South Africa (Yudelman 1965:239), Ongoho in the Northern District of Papua (Crocombe 1964a:36), and the Cook Islands, where Crocombe (1964b:142) concluded that

> the issue of registered freehold titles by the Land Court of itself made little if any contribution to output in the early decades of the century and of recent years has had a negative effect.... Security of tenure must also be complemented by other measures if major increases in productivity are to result.

Tenure conversion at Ombi-Tara has enabled labour inputs in the establishment and maintenance of the rubber plantations to be reduced and appears likely to lead to economies of scale when the trees come into production. Conversion has facilitated, and has been complemented by, increased agricultural assistance. These factors together have contributed to the increase in cash cropping activity and improved labour productivity at Ombi-Tara.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [178] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 ●182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

851 marriage is in force; he is, in addition, considered to be the genitor of all her male offspring though not her female offspring.

842 It is obvious that the Orokaiva know the 'basic fact' that when a man and woman have sexual intercourse, the birth of a child often follows and that the latter, in common experience, does not occur unless preceded by the former. The recognition of this fact does not impel them to adopt a genuine 'theory of physiological paternity'; their basic theory remains that of spirit entry which is deemed essential to the conception of all children, whether male or female. The notion 842 of physiological paternity is introduced only 562 to solve a somewhat different problem: why the sexes differ in physiology and legal status. The answer runs as follows: the male is believed to have a special quality (*ivo*), not shared by the female. This is a strength or power enabling the male to play his distinctive roles and it is transmitted by a man to his son in the 'male blood' which enters the mother in intercourse. This is the *ivo* of the lineage. As women do not receive this type of blood, they cannot carry on the lineage: filiation is patrilateral. Having only the 'weaker' blood of their mothers, they become women.

842 Leach's essay on 'virgin birth' does a good deal to illuminate the Orokaiva case. The Orokaiva, like Christians and the people of ancient Mediterranean societies, believe that some births are the consequence of sexual congress whereas others are not. Both cultures have a further theory according to which some children may be conceived by a 'woman sleeping alone'. Furthermore, both systems explain conception in these circumstances by a spirit entering a woman and fertilising her.

614 Now, as I understand Leach, in all quoted
● 182 cases of parthenogenesis, a great social distance separates a father of egregious status from a mother and maternal lineage of much lower status. In some of the quoted cases, the offspring inherits the father's high status while in others, the offspring remains (as in the Trobriands) in the lower 'stratum' of the mother. The somewhat unusual Orokaiva case fits this pattern quite well. Woman is not destined to stay in the clan but to be abducted or to elope and settle elsewhere, but her children will always covet the clan's land and her brother who is expected to love her is

614 not unlikely to meet her request. Her brother's
• 182 children will fear her constant demands and
her threats of sorcery. Her actual power is so
great that a religious construct, proclaiming
her social distance from the men of the clan,
and making her look low and insignificant,
may help somewhat to keep the embattled
[842] clan patrimony together. It is therefore
tempting to treat Orokaiva parthenogenesis
theory as offering further evidence for the
tension between patrilateral and matrilateral
kin, though this tension could be demon-
strated more easily by less esoteric means.

114 The Orokaiva case makes one wonder just
171 what constitutes 'knowledge of physio-
842 logical paternity'. Leach writes about 'basic
facts of physiological paternity' (1967: 41)
which anyone but an idiot would know. On
the other hand, Spiro speaks of a 'theory' and
compares 'physiological paternity' to the
'heliocentric universe' (1968: 244)—the
latter was a theory that man did not have
until the fifteenth century. Spiro does not
quite indicate at what point in time mankind
obtained 'knowledge' of the former theory,
but he evidently thinks it was well before the
birth of Jesus. I am not sure just how Spiro
would classify the case of the Orokaiva: are
they 'ignorant' of physiological paternity or
not? Are they less ignorant than the Tro-
brianders but more ignorant than the
Dobuans (who do not believe in virgin birth
at all)? Do not all these groups derive their
theory on this subject in precisely the same
way, namely in the context of a metaphysical
cognitive system? It seems to me that a sig-
nificant difference between the Melanesians
and modern man, if it exists at all, does not
lie in the substantive content of their theory
of physiological paternity, but in the capacity
of modern man to show by empirical evi-
dence that the Trobrianders are wrong, the
Dobuans right and the Orokaiva in between.
As for the contemporaries of Jesus, they seem
to resemble the Melanesians rather than
modern man, in that they had no such empiri-
cal evidence.

121 I think that in primitive thought we should
distinguish between empirical generalisations,
which may often imply no more than a rough
[813] statistical correlation, and deductive theories
[824] implying causal connexions. It is notorious
that primitive thought will easily move from
the former to the latter, as the Orokaiva do,
for instance, when they note that *taega* leaves
fall while the main taro crop is coming up and
postulate that it is the dropping *taega* leaves
that cause the crop to prosper. There is no
reason to believe, however, that the Orokaiva
invariably make a causal theory out of an
empirical correlation and they may even omit
to do so where modern thought would
applaud such a step. A person may 'know' as

731 that the Orokaiva explained these cases not by sorcery (as they
[753] regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not
● [182] resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

657 The government had long followed a policy of consolidating
361 hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepe many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

[731] On the other hand, there were several factors favouring such a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
development occurring over the years under consideration; it will
731 be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[A] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoge, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. More inter-
village cooperation was a far less significant factor than inter-
578 village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocoube and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
and a new Australian-derived passion for military regularity. This
[363] is evident especially in the emphasis placed on building the houses
in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
392 camp which is reflected in the style of Old Sivepe. The changes found
in New Sivepe are due to subsequent influences, mainly that of the
Local Government Council. Once village improvement became an ideol-
ogically validated objective, the way was open to the adoption of
further innovations borrowed from the Kokoda district, such as the
use of "timber." I did not see "timber" used East of the Sasembata
district.

[192] It may well be that the increase in house size, coupled with
the present need to build a large number of houses in the same year
to form a major modern village, would rapidly have led to a critical
shortage of sago in Sivepe if people had continued to use this material
for walls. Thus, the present practice of using timber instead of
sago could well have an economic explanation. Sago roofs can be
built without destroying the plants, whereas plants have to be cut
entirely to produce sago walls. I was not, however, given an economic
explanation for the change-over to timber; I was told only that it
was better-looking and provided good protection against wind and rain.
But nobody would say anything against sago; sago walls are "also very
good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for
gardening has been greatly facilitated. There has, however, been no
change in the operations concerned with the plants themselves, planting
and harvesting being done with wooden digging sticks. Many of the men
have had experience in rubber plantations, with operations such as
tapping; there are a few tapping chisels in the village. Training in
coffee cultivation occurred after the eruption, but it was not until
a few years ago that hulling machines were introduced. Every grower
177 at Sivepe has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have
not been mastered. The difficulty, in this respect, is not purely one
of communication, as men who have been employed as rubber tappers must
be familiar with certain rules regarding care of the trees which are
definitely not being practised. Similarly, I doubt whether one can
explain failure, on the part of Sivepe growers, to prune their coffee
trees by ignorance of pruning techniques. The true explanation would
appear to be a lack of confidence that the rules make any difference
to the yields. In Hohorita people began to prune their coffee trees
when they discovered they were then easier to harvest. But the whole
pattern of reasoning upon which Western horticultural practises are

361 conceived as part of it. (People spoke of the residents as living "in Sivep," not "in Orinasusu!")

In the new village, the number of houses built outside the regular rectangular plan was even larger. Of the 25 houses, only 14 were strictly where they were supposed to be; a further three dwelling units might be considered "in line" if the term were used very broadly, but eight formed a line of their own, roughly parallel to the two planned rows, with doors facing towards the arsha. This line was on more elevated ground than the rest of the village, and about two chains behind the nearest planned row. The decision of all these householders to build outside the regular rows is in part explainable by features of the kinship structure, to which I shall refer later. We should not ignore, however, certain historically and psychologically determined attitudes which resisted the regular village pattern. In this connection it is significant that in only five out of 11 cases the irregularly placed houses were built on land to which the occupants had some special claim. Houses that were out of line were at first all of much lower standard in size and construction.

[182]

Because of the very close scrutiny the inhabitants of a village give to one another, as well as the numerous regulations that are now being enforced in villages, Orokaiva feel the threat of regimentation implicit in the large resettlement villages. Even the small distance of two chains provides a valuable measure of detachment for people many of whom used to live in much smaller villages and managed to evade most of the modern regulations. One man ceded to pressure and built a house in the "line" in which he placed his daughters-in-law and their offspring but he stayed in the old house on the hill. There was much criticism too of the unwillingness of one man on the hill and the owner of the detached house No. 8 to clear the tall weeds between their houses and the rest of the village. I feel sure they let these weeds grow with the specific purpose of emphasising the distance. It was generally agreed (and confirmed by Mr. Waddell's data) that these two men were among the most diligent gardeners in the village, so that "laziness" provides no explanation.

[342] A further dimension of freedom is always available to Orokaiva by the institution of the "garden house." A garden house is a rough shelter where people can sleep in the heat of the day while they are at their gardens. Some garden houses, however, are good, sound structures suitable for semi-permanent residence. Sometimes people stay at them overnight, sometimes for several nights in succession. This is done at times when there is a great deal of garden work urgently needed; by staying at their garden houses people save time and avoid distractions. It is also done when there has been a quarrel and people like to stay out of sight for awhile; finally, it may be done simply for reasons of privacy. Some men stay at garden houses far more frequently than others. One Sivepe man is staying there constantly and has no village house at all, nor did he have one in Old Sivepe. Generally, stays of more than one week at one time are most unusual. Most people never stay away for longer than one night.

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was *how* far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been associated with their land.[11] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

The fears about losing the land which explain much of the tension at Ilimo Camp are a direct consequence of conflicts implicit in Orokaiva social structure. The institution of land borrowing, the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[18]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 602 grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the [601] partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

[182] The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

[177] [609] This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

[21] If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Horton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Besewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to [721] attack government parties,[3] peace was secure within 4 years. Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes [166] under the novel conditions brought about by the arrival of the Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

614 wider grouping of Jegase clansmen in the neighbourhood, which we
613 describe as the 'dispersed clan branch'. This consists of the reputed descendants of Jegase men said to have once occupied together the settlement Simbehata-Totogata on the territory since associated with the group. It now has its largest single nucleus at Sivepa but includes also the Bebehupa men scattered in other villages, who recently separated from other members of the lineage now at Sivepa.[1]

Several writers have described one order or another of localized patrilineal groups in this census division as lineages (Belshaw 1951:2; Reay 1953:115; Norton 1962:3); in calling the Sivepa groups lineages, we have maintained some consistency with the terminology used for their formal counterparts in the survey at Inonda.[2]

Each lineage in our sample at Sivepa retains a name said to have been transmitted from some remote patrilineal ancestor and each shares a distinctive plant emblem, arahu, associated with its identity as an agnatic group (see Appendix D). Williams (1925:410) notes that the arahu of matrilateral kin is used by householders to mark their distinctive personal identity within their patrilineal group.

The adult male membership of lineages represented in the sample, excluding absentees who have moved from the neighbourhood, ranges from 1 (Arehu lineage) to 9 in the case of the Bebehupa members of the dispersed clan branch. Members of each group trace precise genealogical relationships to one another. All the Bebehupa men with one possible exception can do so. Genealogical memory is short. Ancestry can be traced back to men of the generation of

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[1] We should emphasize that the 'clan branch' and 'dispersed clan branch' are not groups at different levels of a hierarchical lineage structure and that the distinction is a device for discussing the Jegase groups in question.

[2] At Sivepa we found that the use of the term ahije (or haije) was
601 not restricted to reference to the founder of a lineage as at
184 Inonda (Crocombe and Hogbin 1963:17). Any members of Jegase clan are called Jegasetahije and the founder of the clan is also their ahije. Moreover, the term may be used in another sense both to refer to any of ego's male cognatic ancestors or to denote any (or all) of a man's immediate cognatic descendants. Similarly epihe, said by Norton to refer to a lineage seems to be used rather for ego's maternal uncle or grandfather, paternal grandfather, etc., epimane (pl.) being a term for a number of these kinsmen, not for a number of lineages or a clan. Unlike ahije, this term is not used for descending generations too.

A, [See Category 613, p. 110--Analyst]

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one man's house to another,
361 either as a persisting group of agnates working contiguous holdings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
● 184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepe. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
M result in repeated changes of residence as it does among the
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[578]

[1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

425 f. Local organisation and land transfers

(i) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Togahau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

Chapter 3

The village economy

433 [128] This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of [251] life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production [438] was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

[436] The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

244 (a) The subsistence sector

(1) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it [361] does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many [184] settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and '<u>hingi</u>' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach maturity. In the less densely settled areas where wild pigs are common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

The staple food plant of the Orokaiva is taro (<u>Colocasia</u>) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (<u>Xanthosoma</u>) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A, [See Category 102, p. 38--Analyst]

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 [134] 137 311 Sivepe is situated 1,300 feet above sea level on the lower north-western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

301 [131] The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 [499] Also in mid-1964, several villages voluntarily commenced the construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

Chapter 8

The two villages compared

433 184 (a) Levels of activity in relation to available resources

In expending an average of 43.5 hours per man-week the Inonda villagers are slightly more active than their Sivepe counterparts, but the difference relates to the subsistence sector. Although both are communities of cultivators with taro the staple crop, the supplementary food producing activities are substantially more significant in Inonda, with fishing particularly important during the wet season. This more diversified economy partly explains the higher level of subsistence activity at Inonda (see Table 8:1).

More time is required to achieve subsistence at Inonda, principally because of the journey to work: 25 per cent of all activity time is devoted to travelling, even at the new site, compared with only 15 per cent at Sivepe.[1] Thus, if time spent in travelling is deducted, the difference between the two villages is eliminated, Inonda spending 25.1 hours per man-week on subsistence and Sivepe 25.5 hours.

Environmental differences provide some explanation for Inonda's subsistence economy being more diversified and the location of activities more dispersed. Not only are the soils around Sivepe of a uniformly high agricultural value but all the land is forested [311] and therefore potentially available for cultivation. By contrast, the soils at Inonda are of variable quality and at least one-third of the total area is grassland and therefore unavailable for cultivation according to present practices, while even some of the forested areas are unsuitable due to the infertility of their soils. Most Inonda gardens are made on a land system covering only one- [241] fifth of the total area. Probably on account of this generally lower soil fertility, the fallow period at Inonda is about ten years compared with only six at Sivepe and, using Crocombe and Hogbin's and Rimoldi's estimates of the garden requirements per head of

[1] The contrast is even more marked if the uncorrected percentages are used - 32 per cent and 18.3 per cent respectively.

A, [See Category 461, p.171--Analyst]

population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in the hinterland of a village which is located at the forest-grassland boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases only about one-third of this is directed towards cash production. Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100 \frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.
C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.
L = acreage of cultivated land per head of population per annum.

Table 8:1

Sivepe and Inonda: some contrasts in activity patterns
(hours per man-week)

	Sivepe	Inonda
Clearing	2.9	3.7
Subsistence gardening	13.2	11.7
(of which: taro gardening	9.1	6.6)
Other subsistence food production	2.5	7.8
(of which: fishing	0.2	3.8
hunting	1.8	2.0
sago-making	0.4	1.2)
Construction	1.6	2.0
Total - subsistence sector	30.0	33.5
Cash-producing	3.2	3.7
(of which: cash cropping	1.6	1.0
paid work	1.6	2.7)
External agencies	5.8	3.2
(of which: meetings	1.3	0.3
church work/ services	3.0	1.0)
Total - external sector	10.7	10.0
Total*	40.6	43.5

* A 't' test was applied to the mean weekly figures, to provide some measure of the significance of difference between the mean level of activity in the two samples, using the equation

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s'} \sqrt{\frac{N_1 N_2}{N_1 + N_2}}$$

where s' = the standard deviation of the population. t was computed to be 1.98; the means for the two samples are, therefore, significant at the 5 per cent level.

and was largely connected with the improvement of the Popondetta-Oro Bay road which passes by the village. In Sivepe both are of equal significance. While one girl was in permanent employment, she had assumed no major subsistence responsibilities, was single and, during the course of the survey, left the village to reside on the mission station adjacent to her place of work.

In each case several cash crops are grown, all of them tree crops. To some little attention is given (e.g. coffee in Inonda) while to others effort is restricted essentially to harvesting and the subsequent processing and marketing of the harvested product (e.g. coffee and rubber in Sivepe, coconuts in Inonda). Further

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites. 361 178 166

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector. 241 178

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine. 433 184 [461]

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work. 245 [241]

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of few diseases or pests. In Sivepe, work groups in cash cropping are no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

461 184

433 184 166 464 In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether <u>given the existing technology, socio-economic matrix and level of productivity</u> the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

Chapter 12

The two villages compared

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(a) The form and content of exchanges

The data on exchanges are of a less comprehensive nature than those dealing with activity patterns. Hospitality, 'a cardinal virtue with the Orokaiva' (Williams 1930:37), has been disregarded as has a range of minor transactions, such as the loan of tools, temporary care of children, the casual movement of the lime gourd from hand to hand and much of the sharing of areca at informal gatherings. However, such exchanges replicate those of the more important goods and services dealt with, in terms of both their form and function.

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There are only minor differences identifiable in the basic characteristics of exchange in the two villages. Each manifests a demand for cash that greatly exceeds the returns obtained from cash cropping, with the latter only one of several important sources of income. Nevertheless, the juxtaposition of monetary and non-monetary exchanges largely conforms to traditional concepts of morality where the principle of reciprocity operates within the 'sympathy group' and monetary transactions are effected, almost exclusively, with indigenes lying outside this group and with institutions located in the external sector of the economy. Thus a precarious, and probably only temporary, compromise has been achieved in which group solidarity and individual commercial aspirations each operate within socially and geographically identifiable contexts. The decision of the senior member of the largest Jegase lineage to 'market' pigmeat among villagers, and Linton's own dilemmas in the matter clearly demonstrate the vulnerability of the Orokaiva ideal of reciprocity in the face of progressive commercialisation of their economy.

However, to make a strict division between monetary and non-monetary exchanges can be misleading for, not only do specific goods and services marginally overlap the two categories, but many of the latter exchanges are not unlike the former in character. The principle of reciprocity underlies them all, although the system does not require that like be exchanged for like, and one type of goods is often reciprocated by another or goods by

service. In Sivepe sustained reciprocal exchanges operate primarily among members of an extended family and secondarily within a single generation (as between cross-cousins or ego and his wife's brother). In the first a significant degree of economic inter-dependence is apparent, while in the second exchanges serve to support alliances which may be both social and economic in character. Because of the continuing nature of the relationship no final settlement occurs and reciprocation is, therefore, frequently delayed. Elsewhere major exchanges are more typically characterised by immediate reciprocation, particularly where the obligation is a specific one relating to particular goods or service. In consequence only the casual exchanges, which themselves comprise but a small proportion of the total quantity of goods and services transacted, can be judged a drain on resources in the sense that they might serve to inhibit individual aggrandisement.[1] Furthermore, in most instances, the proportion of total production exchanged is so slight that the system cannot be considered to function as a major limitation on productivity. Even where the proportion is high, as with pigs or sago, there is normally immediate reciprocation to an equivalent, and often negotiated, value. In effect, therefore, it is less the goods than the relationship which determines the type of exchange adopted and according to the available evidence, this applies regardless of the extent of individual involvement in the monetary economy.

With the exception of labour services the mean volume of transactions per man-week in all categories in Inonda is about twice the level of that in Sivepe (see Table 12:1). However, the area over which most of them operate is much the same; at Inonda, 87 per cent of the acquisitions and 89 per cent of the disposals of subsistence produce are effected within a radius of two miles of the village, compared with 91 per cent and 81 per cent respectively at Sivepe. This difference of scale is largely explicable in terms of the greater socio-economic diversity of the Inonda neighbourhood and, related to this, the fact that virtually all the village's cash income is locally derived whereas at Sivepe a major source is remittances from kin, with whom there is little direct contact.

At Inonda a more restricted range of subsistence produce is available; with the exception of sago, there is a scarcity of staple foods suitable for consumption during the dry season. At the same time there is an abundance of fish and game within the group territory. Within a short distance of the village live ex-servicemen settlers (some of whom are kinsmen) and plantation labourers, while access to the wage earners in Popondetta is facilitated through the market there. The limited number of Inonda people in the permanent

[1] See pp.181-2.

[TEXT CONTINUED ON PAGE 281]

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Per capita, the Inonda people handle more than twice the amount of cash and storebought goods as do those in Sivepe. Furthermore, there are important differences in their respective income and expenditure patterns. In Inonda cash is derived from a wide range of activities, among which cash cropping is only of minor importance. Contracting and sales to the Administration provide the single most important source, accounting for almost one-fifth of total income. In Sivepe almost two-thirds (60 per cent) is derived from cash cropping and remittances. In both villages, but more particularly in Inonda, cash is acquired on a very irregular basis. Even with coffee, for which there is a defined buying season of about seven months, there are seldom more than three or four opportunities to sell and the villager has no way of predicting when these will occur. This, perhaps more than actual size of income, is a major determinant of expenditure patterns, making both budgeting and capital accumulation hazardous.

At Inonda, with its higher per capita income and fewer formal demands placed on it,[1] more is spent in trade stores than at Sivepe, yet this expenditure is distributed over a similar range of commodities. In both cases foodstuffs and stimulants account for almost two-thirds, with the balance being spent on a wide range of cheap clothing, household goods and tools. Little of this expenditure is of a 'luxury' nature for, among foodstuffs, flour in Inonda and rice in Sivepe are purchased either wholly or largely during the dry season to supplement the shortage of subsistence foods, tinned fish and meat serve partially to compensate for a general inadequacy of protein in the diet while, among other goods, cartridges, torches and batteries in Sivepe are purchased to improve the efficiency of hunting.

The excess of income over expenditure in Sivepe is also higher than in Inonda, as is the amount of investment in shares and bank deposits, suggesting that the larger incomes at Inonda are associated with a more rapid turn-over of cash. Even the entrepreneur there, who accounted for almost half (43 per cent) of his village's total income, registered a net credit at the end of the survey of only $5.02 on his household's cash balance. Only he, among all the villagers in the two samples, purchased a major item of capital equipment during the survey - a shotgun costing almost $50. This followed a cash payment of $42, for organising the construction of the researcher's house, rather than an extended period of saving from income.

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[1] The villagers did not contribute to the Papuan Church Fund during 1964, an item which accounts for 10 per cent of total expenditure in Sivepe and exceeds LGC tax payments in importance.

new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land-tenure and work organization.

It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepe, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

(1) Population density in the Saiho census division (which includes Sivepe) is 72.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6)[A] they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda is a village on the sparsely settled plain, Sivepe village is
[361] located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

472 493 494 income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

435 Other property

472 471 422 184 As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

472 422 435 The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

472 342 (184) [422] The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers.

472 471 435 A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

472 231 184 By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

472 [134] [154] At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

Table 4

Estimated annual income of entrepreneurs ($)*
(excluding interest on savings)

	A (1965)	B (1963)	C (Average 1963-65)	D (1965)	Household average Inonda and Sivepo** (1962-63)
Sales: coffee	320	286	-	-	3
cocoa	175	***	***	50	-
copra	-	-	244	-	-
rubber	-	-	-	-	2
vegetable	-	16	-	20)	4
hunted meat	-	64	-	-)	
Gross store profits#	91	50	199	42	-
Compensation##	-	35	-	-	6
Government loan###	-	-	-	140	-
Paid labour	-	-	-	-	23
Gifts, etc.	-	-	-	-	11
	586	451	443	252	49

* In many cases these figures are estimates only.
** Crocombe and Hogbin 1963b:53, and Rimoldi 1966:78.
*** Not yet bearing
# Assessed at 10 per cent of turnover.
Paid by government for coffee trees cut to widen road.
Under a government resettlement scheme.

Table 5

Estimated value of assets in 1965 ($)*
(not including land, domestic houses or cash savings)

	A	B	C	D	Total	Average	Village householders**
Coffee, cocoa and coconut trees***	3,440	1,320	400	1,740	6,900	1,725	80 (est.)
Buildings#	500	80	100	-	680	170	-
Tools and equipment	252	221	79	287	839	210	15
Consumers durables	240	55	75	132	502	125	10 (est.)
Livestock##	-	-	-	26	26	6	24
Traditional valuables	-	87	-	-	87	22	14
	4,432	1,763	654	2,185	9,034	2,258	123

* This table is based on a series of assumptions, many of indeterminable accuracy. It should therefore be regarded as indicative of trends rather than as a precise record.
** For Inonda and Sivepo householders from Crocombe and Hogbin 1963b and Rimoldi 1966. The average per householder for each village have been added and divided by two.
*** Based on valuations for the entrepreneurs kindly supplied by the Chief Valuer, Lands Department (Mr D.D. Balfour-Ogilvy). Value for the village trees was estimated by the writer, on similar criteria.
# Including only those buildings used in production (a cocoa fermentary, coffee drying trays and store, and a copra drier respectively). Domestic houses were in all cases built mainly of local materials.
Pigs assessed at $10, fowls at $2 each.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

Table 6

Average hours spent per week in various tasks - men only
(not including domestic and leisure)

	Entrepreneurs				Villagers		
	A	B	C	Average	Inonda*	Sivepe**	Average
Traditional production							
Subsistence	2.8	7.3	7.0	5.7	9.6	13.5	11.5
Hunting, fishing, foraging	0.3	4.7	3.1	2.7	4.3	1.3	2.8
Building	-	1.2	4.0***	1.7	0.1	2.7	1.4
	3.1	13.2	14.1	10.1	14.0	17.5	15.7
Production for cash							
Paid work	-	-	-	-	11.3	2.6	6.9
Cash-cropping and store	25.1	19.3	14.0	19.5	0.7	0.8	0.7
	25.1	19.3	14.0	19.5	12.0	3.4	7.7
Non-economic activity (other than domestic and leisure)							
Social obligations	0.3	0.7	2.0	1.0	12.5	4.9	8.7
Travel	-	3.7	1.0	1.6	2.8	4.1	3.4
Sickness	1.7	1.4	5.0	2.7	2.6	1.0	1.8
Council, etc.	0.5	10.7	-	3.7	0.6	0.4	0.5
Church	-	3.2	8.5	3.9			
	2.5	19.7	16.5	12.9	18.5	10.4	14.4
Total	30.7	52.2	44.6	42.5	44.5	31.3	37.9

* From Crocombe and Hogbin 1963b:63.
** From Rimoldi 1966:28.
*** C built a new house during this period.

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184
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Table 7

Average hours spent per week in various tasks - all adults
(not including domestic and leisure)

	Entrepreneurs and families*				Villagers		
	A	B	C	Average	Inonda	Sivepe	Average
Traditional production							
Subsistence**	9.0	13.0	8.3	10.1	11.7	14.4	13.1
Hunting, fishing, foraging	1.6	5.0	1.6	2.7	2.8	1.2	2.0
Building	0.4	0.9	1.3	0.9	0.1	1.6	0.8
	11.0	18.9	11.2	13.7	14.6	17.2	15.9
Production for cash							
Paid work	-	-	3.6	1.2	5.7	1.3	3.5
Cash-cropping	9.7	21.9	4.5	12.0	0.8	0.5	0.6
	9.7	21.9	8.1	13.2	6.5	1.8	4.1
Non-economic activity (other than domestic and leisure)							
Social obligations	2.6	0.7	1.0	1.4	16.2	4.4	10.3
Travel	0.7	3.3	0.3	1.4	2.9	3.3	3.1
Sickness	4.0	1.1	2.8	2.6	2.9	2.5	2.7
Council work, etc.	1.4	4.1	-	1.9	) 0.3	0.9	0.6
Church	3.2	3.0	3.6	3.3	)		
	11.9	12.2	7.7	10.6	22.3	11.1	16.7
Total	32.6	53.0	27.0	37.5	43.4	30.1	36.7

* For A this included his two resident sons and their wives, two brothers and their wives. For B it included his wife and his brother and for C his wife and his adolescent daughter.

** B and his family averaged 17 hours weekly on food gardening, but 4 hours of this has been transferred to cash-cropping as he markets surplus vegetables in Popondetta. Most of the food gardening is done by his wife (26.8 hours weekly) and brother (16.9 hours).

461 be acquired without too much hard labour or threat to status, and only
436 if its acquisition does not involve foregoing other more highly valued
437 benefits. Thus, the market has a great elasticity of supply: when
435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern
583 faction was, in fact more money-oriented than were the Sivepe people.

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepe people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepe people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepe to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepe
621 and Inonda are of different population size, Sivepe having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that
[614] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timumu and modern Sivepe still contains roughly the same family alignment except that the members of the Timumu clan are now calling themselves

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garoubi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, dancing expert and some others. One of these experts, the feasting [554] expert, is in fact the man of highest status in the clan or village [622] and may be called its leader. A clan leader may take responsibility [614] for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari embo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early converts belong to the Jegase clan. Plant emblem groups (or lineages) 794 are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepa, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the hands of the transport driver and one-time councillor, who played the role of lay-● 184 preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepa were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepa by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepa.

its efforts upon what were then the Jegase and Timuni clans, to the exclusion of Seho. When my wife and I came to Sivepe, Jegase at once claimed us, built our house for us and was ready to perpetuate the familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of Jegase did not actually make much difference. Seho grew just as much coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to Standard 6) at Sasembata School; so far only one has gone further. One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

184 197 The difference in pattern between the two villages may well be explainable by the influence of the improved schooling and the close contact with the mission station found in Sivepe, in common with many of the other resettlement villages. These improved facilities may to some extent be regarded as social consequences of the eruption, as they were developed in the resettlement villages in the wake of resettlement to replace the earlier facilities at Sangara.

434 184 Money income has risen rapidly since the war. About the time of the eruption, six of the present inhabitants of Sivepe were away on jobs outside the village. Not only are far more Sivepe people absent today on wage work, but the village itself has a steady income. At the time of Rimoldi's study, his sample was said to have spent annually $410 while its income for 1962 totalled $328 or $28 per household. Today this has risen greatly; the 14 coffee gardens, with over 4,000 trees, produced some 6,000 pounds of coffee, worth in all about $1,000; gifts from absent wage-earners over the year totalled at least $500 and other income (paid work, sale of products, etc.) at least $200. This makes up a minimal total of $1,700 or an average of $60 per household. I would not be surprised if actual total income was as high as $2,000 but it is very hard to obtain reliable facts. There is no doubt, however, that the coffee gardens have made Sivepe substantially wealthier, while in Inonda only the government driver has substantially improved his position since 1962, when Inonda's average household income from paid work, produce and gifts was [465] 833 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular salary of about $700 p.a. stands out in both villages.

124 was much less marked when I took him with me to Inonda. He was a
123 bachelor who had a penchant for courting girls he was, for some reason,
157 unable to marry. While we were in Sivepe, his girl friend, though
belonging to the Seho clan was rather too closely related to him on
her mother's side. Her father was Lawrence's elder brother and the
[582] Seho clan generally was strongly opposed to the union; they therefore
treated the affair as incestuous. The mission had wanted to send
Leon for training in hospital work. He had been doing some of this
at Sasembata, and it would have suited him. His father opposed the
idea, considering that his knowledge of English, etc. would be too
useful to lose. When I came, his calculation proved right, for Leon's
presence and employment drew me, for some months, into a position of
much dependence on that family. Leon was the only young man who did
not join in the drum dances, and who never sat with the other men.
Perhaps, his bachelor status partly explains this, but another bachelor
of the same age did not keep away to nearly the same extent.

177 One difference between Inonda and Sivepe was that in the former
184 place there was only one family through which adaptive ideas and
decisions were transmitted to the community, and in practise only one
man, whereas in Sivepe, there was a variety of influences: the Seho
leader, the two older, and in many ways totally different older Jegase
leaders, and several younger people each with their own fund of experience
which helped them to interpret a changing social situation. This
difference results not only from a different organisational pattern
(based respectively on the "big man" and the equality ideology) but
also from the mere difference of size. It may be argued that some at
least of the multitude of avenues through which the modern world was
made accessible to Sivepe was due to post-eruption measures in the
resettlement villages. Of the leaders discussed here, however, not a
single one (except the two young interpreters who were scarcely leaders)
[797] was educated in the post-eruption period. They may have been influenced
by their close association with the mission; if so, it is hard to say
to what extent this association explains their present attitudes. One
may safely say that the association with the mission at the present
time reinforces the change-directed ideology of Sivepe leadership.

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegasa and Timumu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data, dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

pointed by the administration to enforce regulations concerning law and order, works and amenities. They were not necessarily 'big men', customary feast-givers or, military commanders.[13] At Ilimo they at once became the leaders of all operations (food distribution, house building, visits to the home village), as these involved dealings with the Europeans in control of the rescue and supplies.

These organizational changes, individual fears, grief, anguish, and the increased dependence on village constables and white authorities were certainly reflected in the explanations given of the eruptions. But these explanations took account also of far broader cultural issues, in fact of the total postcontact experience common to the population of the Northern District.

The Orokaiva explanations of the disaster to be considered here certainly cannot be understood except in the context of the total Orokaiva cognitive system. Any Orokaiva explanation places the eruption within a logically consistent framework of meaning, but it is only one of several possible frameworks that might, successively or even simultaneously, be constructed out of the Orokaiva cognitive system. I propose, in the present section, to construct a model of the various systems of connotation and the relations between them. Systems of denotation are briefly referred to here but explored in more detail in the following section.

One obvious line of explanation of the eruption was to ascribe it to the anger of Sumbiripa. Many Orokaiva actually explained the disaster in this way at the time it happened, as may be seen from the evidence of Tomlin (1951), Benson (1955a, 1955b), and Schwimmer (1969:69ff.). The anger of Sumbiripa, as supposedly expressed in the eruption of Mount Lamington, was explained by Orokaiva by various disrespectful acts against the mountain. Grenades had been thrown near the crater during the war. Afterward, the Orokaiva began to acquire guns for hunting on the mountain. Such were the acts quoted to me in Hohorita and Sivepe as arousing Sumbiripa's anger. The eruption was regarded by informants as an unprecedented event. The question arose in the Orokaiva mind why such an event should occur just then, when it had never happened before. The anger of Sumbiripa had always been feared, but no sinister meaning had been attached to the rumblings and smoke signals, and, moreover, revenge had always been mediated through 'ghosts'. The new form of punishment could be explained

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

significance is assigned to this distinction for the purpose of stating some ideology.

Barthes (1964a) points out that in a connotative system the level of expression is "rhetoric" and the level of content is "ideology." This seems to describe the pattern accurately enough. The present explanation may be reduced to a rhetoric or moralistic vilification expressing a tribalist Waseta ideology. The rhetorical aspect is clear because in actual fact both tribes hunted on the mountain though only one was hit seriously by the disaster.

I now turn to a second explanation which deals with Orokaiva, though we have very few data on its currency among them. The explanation is contained in a report (undated but probably written shortly after the eruption) from Fred Kleekham, district agricultural officer, Popondetta, in which he describes a mission-sponsored "Christian Cooperative." This cooperative flourished among the Yega at that time where, in Kleekham's opinion, it "did indeed become a cult." Kleekham reports that members of the cult refused to have their rice hulled or bought by the government and that this was due to "some mystical element . . . involved in rice marketing." He continues:

> I think that more influential than the thought that Europeans would leave Papua as a result of cooperatives was the belief that the formation of and participation in cooperatives would—magically or mystically—in short time raise the native to the status of the European in all respects. . . . I am sure that this movement owed much to hanging of Orokaivas judged responsible for the murder of missionaries and the former officer in charge of the coffee project.
>
> It is interesting to recall that one group was prepared to do *anything* under European guidance to get money. Their message was "show us how to get the money to buy the guns." Later the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings.

There is no evidence that this explanation of the disaster was ever held by any Orokaiva. It is more than probable that this explanation is that of the Yega, who are traditional exchange partners of the Orokaiva and enemies of the Sangara. It is among the Yega that Kleekham worked, and I am inclined to believe that the Yega widely accepted the views he reported. This would fit the facts as we know them. Certainly we should not expect the Orokaiva to explain the disaster by a theory which accounts only for

the death of the 45 Europeans on the mountain but not at all for the death of 4,000 Orokaiva and the destruction of hundreds of villages. It is far easier to understand such an explanation coming from the Yega, traditional enemies of the Sangara tribe, whose own losses through the disaster were very small. There is indeed no reason why the Yega should have been grief-stricken by the eruption at all. They were involved in an anti-European cult according to which the death of the administration personnel at Higaturu was thought nothing less than a divine blessing, while the misfortunes of the Sangara may well have been a further source of satisfaction. The Sangara survivors, who were quartered in an evacuation camp in Yega territory from February to April 1951, felt most uncomfortable there and very frightened that they too would be killed off by their old enemies through poisoning, sorcery, or other mischief.

The data do not enable us to say with certainty whether or not, in the Yega explanation, the eruption was actually caused by the anger of Sumbiripa. Benson (1955a, 1955b) describes the general atmosphere among the Yega immediately after the eruption, and from his account one gathers that the Yega, like the Orokaiva traditionalists, believed Sumbiripa was responsible, though he was credited with somewhat different motives. Kleckham is undoubtedly right that the public execution of the so-called collaborators, conducted by the Australian army in a spectacular and rather gruesome manner, caused much resentment among the various tribes of the Northern District. The Yega cooperatives of the late 1940s, described in some detail by Dakeyne (1966) and discussed in Schwimmer (1969:86–89), were led by two Anglican clergymen, Benson and Clint. They must therefore have believed that power would come to them through the intervention of the Christian God. Though the precise significance they attached to the eruption is not known, the context suggests that they must have regarded it as a sign that supernatural forces were working in their favor or at apy rate against their enemies.

The metalanguage used in the Yega explanation is that of a millenarian cooperative cult, arising in response to what was regarded as oppression and commercial exploitation. The eruption established a rule that supernatural agencies punish white people who hang Papuans. In justification of the rule, there was again cogent empirical evidence. Most of the forty-five Australian victims of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sumbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

ject of the wrath of the mountain. There are, however, two interesting differences. The first is that in the Orokaiva explanation we find an opposition between two tribes (Waseta innocent; Sangara guilty). In the Yega explanation we find an opposition between ethnic groups (Papuans of the Northern District innocent; Europeans guilty). This classing together of the Papuans of an entire region is a departure from traditional tribalism. It reflects an ideology aimed at maximizing indigenous power by the establishment of an intertribal regional coalition.

The second difference lies in the role of Sumbiripa (or whoever the angry deity was) in the two explanations. In the Orokaiva version, the transgression was against the sacred domain of Sumbiripa and thus of a familiar traditional type. In the Yega version, the punishing God assumes a strangely political role in taking the side of the Papuans against their enemies, the whites. The crime of the whites admittedly took place near the mountain, though not in the sacred domain. Sumbiripa was never, in any other context, described as a general defender or avenger in support of "his" people. Indeed he seems to be playing a somewhat Jehovah-like role in this tale. We are here in the sphere of the Cargo Cults or millennial movements rather than in that of traditional Melanesian religion.

Meanwhile no mention is made of the 3,500 Sangara who died in the disaster. This would have weakened the argument, for any reference to the Sangara victims might have suggested that they too were worthy of punishment. Though the Yega probably do think so, it would not have been expedient to say so when an intertribal alliance was contemplated. Here we are obviously closer to ideological rhetoric than to philosophical speculation.

The third explanation of the disaster is the one that has attracted the most attention by previous writers. Belshaw, who met Orokaiva survivors a few weeks after the eruption, records the following observations (1951:242):

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them betrayed missionaries to the Japanese. [Others again mentioned] lack of cooperation in Mission and Government plans for development. . . . This sense of guilt is a most important factor in resettlement attitudes.

Keesing (1952:18) agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life."

A great deal of evidence supports Belshaw and Keesing in their suggestion that in 1951 the Orokaiva ascribed the eruption to the anger of the Christian God and thought they had brought this anger on themselves by various transgressions. Orokaiva informants reported that this view of the eruption was widely current at Ilimo evacuation camp. It is reflected in a song about the eruption which is still sung by Sivepe youth. This song declares the omnipotence of God and man's absolute dependence on him. It also attests to a wholly Christian eschatology: the abode of the dead is Heaven, where the living will later meet their brothers who died in the eruption. The song admits the guilt of the dead ('our brothers on earth had many temptations'), but the strongest emphasis is on the suffering of the living through the loss of their 'brothers'. Unlike Job, the singer is far too polite to contend with God and criticize his actions. He does not openly and clearly identify God as the author of his sufferings, but God's responsibility is subtly implied.

The rationale of this explanation is not obvious. Quite clearly those who believe that God and not Sumbiripa was responsible for the disaster have some belief in Christianity. In response to contact with the white man they have developed an ideology supporting the work of the missions. But how do they explain the eruption? It seems very clear that in 1951 many explained it as retribution for their lack of respect for the Christian God. But Orokaiva Christians interviewed in 1966 and 1967 rejected this explanation as resting on a misunderstanding of the nature of God. Father Albert, who composed the song referred to above, was one of those questioned. He said that many of those who died in the eruption were little children. He did not think God would punish the innocent along with the guilty. On the other hand, he did ascribe a divine purpose to the eruption. Father Albert said the Orokaiva used to have no idea of the end of the world; this notion was taught by Christianity. After the disaster the people discussed it a great deal: when they saw the sky darken and people dying from the blast, they thought the end of the world had come. God had shown them what the end would be like. In other words,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Father Albert thought that God sent the eruption as a sign. Orokaiva Christians would generally agree with this view, though none of those interviewed formulated it so clearly.

From the viewpoint of this study, the question whether the Orokaiva considered the eruption as a punishment or as a sign is perhaps not a crucial one. In either case, whoever believes that God was responsible must also believe that a dire fate awaits anyone who fails in his obligations to the mission.

Comparing the three explanations surveyed so far, we note that the Christian explanation, like the Yega one and unlike the Waseta version, attached no significance to tribal divisions. God (like the Sumbiripa of the Yega) makes no distinction between tribes, but he does distinguish between the disobedient Papuans of the region and the administrators and missionaries these Papuans failed to obey. The former are guilty but not the latter.

Christian and Yega theories are opposed as to who is the guilty party. Indeed, the Christian explanation omits all reference to European deaths on the mountain, just as the Yega version suppressed the fact of the Sangara victims. The reason is no doubt the same: rhetoric demands that one should not in the same breath advocate a coalition with the white power bearers and admit that the latter suffered many deaths in circumstances implying their guilt.

With regard to connotations, all three systems differentiate between either tribes or ethnic groups that fell victim to the disaster, even though such differentiation is insignificant for explanatory purposes. If we use a minus sign to designate the social groups classed as guilty and a plus sign for the groups classed as innocent (though in fact the latter, too, suffered serious losses), we find:

	Victims		
Explanation	Waseta	Sangara	European
Waseta	+	−	omitted
Yega	+	+	−
Christian	−	−	+

I shall briefly mention a fourth system, though the explanation it contained was put forward by a small minority and was but feebly believed. Several Orokaiva close to the mission maintain nowadays that the eruption was due solely to geophysical causes. The mission authorites put forward this explanation to counter criti-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

Connotation	Explanation			
	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

121 construct a higher-level system which accounts for all the explanations taken together.

731 Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one 809 another: they can be and are held simultaneously by the same peo- 184 ple. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* [718] Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial [704] cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

731 None of these reasons would have sufficed to kill the movement 657 had there been, in the 1950s, a strong opposition to the adminis- 709 tration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

so that the room for manipulation becomes greatly reduced. Furthermore, the church teaches a doctrine of obedience, which the Orokaiva nominally accept.

Taken at its face value, this would imply that the Orokaiva are satisfied to subordinate themselves to mission and government and do not consider themselves capable of serious competition with white authority. Such a notion of 'power'—that is, that it depends on obedience to white foreigners—has no rational basis in Orokaiva thought, since the bearer of 'power' cannot be subordinate to human power but only to spirit power. There are thus only two reasonable possibilities: either the ideology which made the eruption into a punishment by the Christian God denies the possibility that the Orokaiva henceforth can have 'power', or that ideology must make some distinction between, on the one hand, God and the principle of rightful authority (which should be obeyed on the pain of dire penalties) and, on the other hand, the existing ecclesiastical and political power bearers (who need not be regarded as having perpetual rightful authority). The position taken by Orokaiva informants on this question is not in the least ambiguous.

The Orokaiva are willing to obey the present power bearers, but only on the ground that they feel unready at present to assume power themselves. They regard the existing relationship as temporary. They are able to state this openly, since the Australian administration claims to prepare the way for early autonomy and optional independence. On the surface, there appears to be no acute political conflict.

In fact, however, the 'new age' ideology is fiercely competitive. The activities it advocates are perceived by Orokaiva as leading to a balance of power between the Europeans and themselves. The strong interest in schooling, savings clubs, coffee production, village improvement, wage labor, and so forth was explained time and again by the argument that these activities would ultimately place Papuans on the same level as Europeans and would remove the power differential. It was explained that in the 'new age' one no longer kills and eats the enemy because victory must now be achieved by different means. The reforms advocated by mission and government are perceived as the first weapons in the armory needed for victory. Victory, however, should not be understood here in the European sense, where it implies a permanent defeat of

the enemy, but rather in the Papuan sense, where one contends with exchange partners in an inconclusive tug-of-war and the strength of the opponents is approximately equal. Victory, in other words, is the establishment of an equal rather than an unequal relationship.

Given this view of the European-Orokaiva relationship, it is difficult to distinguish between millenarian and gradualist ideologies among the Orokaiva. They are all, in a sense, millenarian, even though they advocate full collaboration with both mission and government. From the more objective view I have taken here, the three Orokaiva ideologies present at the time of the eruption all convey the same message. They are all concerned with the restoration of what the Orokaiva call 'power', which always implies some form of power balance between themselves and their colonial masters.

IDEOLOGY, POWER, AND LAND

As we have seen, all Orokaiva discourse about the eruption can be reduced to one basic theme: competition for power between Papuans and Europeans. I have not surveyed administration discourse about the eruption in the same detail, but it is safe to say that, apart from the mechanics of relief, the administration was likewise concerned with one central ideological theme, namely socioeconomic development. Our structural analysis would hardly be adequate unless we considered the relation between these two ideologies, not only in abstract terms but also in the framework of concrete events.

During the period immediately after the disaster, the administration planned to make the evacuation camps the beginning of permanent relocation under conditions where socioeconomic development throughout the region could be accelerated (Belshaw 1951; Keesing 1952; Plant 1951). While this relocation was being planned, the evacuees were adamant that they wished to go home as soon as possible (Belshaw 1951; Kaad, personal communication). That the administration gave in to the evacuees should not be regarded as a Papuan demonstration of their own power but rather as a necessary response to practical problems facing Orokaiva as swidden agriculturists lacking a secure system of individual, unencumbered landholding. The circumstances of the closing

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

Chapter 3

Motivations and expectations of the Ombi-Tara people

Desire for improved standards of living

185 177 The Ombi-Tara people aspire to what they consider to be a European way of life. They consider that by planting a new crop, rubber, under a new land system they may be able at last to realise their aspirations. The first response of 90 per cent of the block-holders interviewed to the question 'Why did you get a block?' was 'to get money'.[1]

In any formal or informal discussion concerning the reasons for wanting to grow cash crops or for being in favour of tenure conversion, the same points were mentioned repeatedly - the desire for a European house with an iron roof, clothing and food from the store. Some more ambitious men suggested that they hoped to establish trade stores or workshops, to buy vehicles, or less specifically, 'to start a business like Europeans'.[2] At least 20 [241] per cent of the villagers appear to consider the change from planting cocoa, coffee or food crops to planting rubber to be as significant as the innovation of conversion.[3] The villagers hope that rubber will produce substantially greater returns than they were receiving from their cocoa plantations.[4]

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[1] The methods of obtaining information are described on pp.1-2. A

[2] These replies tend to support Epstein's finding (1965:191) in New Britain that villagers often wish to copy not only European consumption patterns but European productive activities as well.

[3] Most people had had some prior experience with rubber, either through the Ombi-Tara bush rubber stands or the Sangara rubber plantations, but few had planted rubber as a cash crop.

[4] As Brookfield has pointed out (1958:24): 'It is quite wrong to suppose that the economic factor can be disregarded in native development. Native toleration of low returns is greater only in degree than that of established European plantations.'
A [See Category 128--Analyst]

657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
177 of the savings account, said that they had first heard of blocks through the Sangara ex-servicemen's resettlement (not conversion) scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
[185 which many Ombi-Tara people find attractive. Several people sug-
461] gested that they would like to employ labourers and work less hard themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Manuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:3): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kuai clan granting permission for the allocation of a block on Kuai land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

5: Schwimmer E-4;5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT

(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages. 648 657 491

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[1 2] 871 872 797 [191]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the 657

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 Christ and perhaps other supreme sources of which they have no knowledge, but
657 these ultimate sources mostly seem inaccessible to the Orokaiva; the people
[789] know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidentally, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 It may thus be said without hyperbole that community development among
657 the Orokaiva has a mythological charter – namely, the Christian religion as the
797 Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 But the second mediating element in this relationship is the councillors,
657 through whom the government's information must pass to reach the people.
623 They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is
[191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some
[554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[5] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8

Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural Officer, Mr Cockshott. In mid-May he commenced a weekly co-operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the co-operative movement was regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilised countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

other rites which are still based largely on traditional precedents. 574
tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, 292
but informants stated that a birthday party was different, as it 177
was a European institution.

The language most frequently used was Pidgin as most of the 574
labourers came from various parts of New Guinea, but the local 191
people spoke between themselves in Orokaiva. Police Motu, the 198
official lingua franca of Papua, was heard quite frequently and
the notice about donations was written in that language. While
the non-Orokaiva people conversed freely in lingue franche, the
less prominent of the Orokaiva people kept largely to themselves.

The only indigenous musical instrument present was a single 574
drum, but it was not played. When asked why there were not more 534
drums, those present expressed mild contempt for them and explained
that there would be guitars. All the music, which continued almost
nonstop from dusk on Saturday until daylight Sunday, was provided
by six or eight guitars owned and played by the indentured labourers
present. There were no skilled guitarists, and the band merely 574
strummed a basic rhythm which changed little during the course of 533
the evening. The repertoire of songs was not extensive and most
were repeated many times. All of them were either popular Western
or modern Polynesian tunes, some sung to Pidgin words, other to
English words and a few to Orokaiva words.

Most of the young men danced, some of them almost constantly, 574
but very few knew any pattern of steps. The majority were attempt- 535
ing to dance modern style Polynesian dancing which had been learned [177]
indirectly from the Samoan, Cook Island and Tongan missionaries who
served along the south coast of Papua (though not in the Orokaiva
area). The one man who could perform a particular Samoan men's
dance quite well had learned it directly from a Samoan missionary
several years ago. Some individuals tried to dance traditional
Orokaiva steps but were not particularly successful owing to the
foreign nature of the music. Several men from New Guinea attempted
ballroom dancing which they had seen performed by Europeans in New
Guinea, and in films.

Of a total of approximately 130 adults present, only about 20 574
were women. While the discrepancy was partly accounted for by the 562
number of male contract labourers, most of the relatives of the
hosts who attended were also men. Few of the settlers or other
visitors brought their wives (unless the latter had relatives at
Inonda). The cooking was done by a group of five women, while the
others remained in the shadows.

The music and entertainment were almost exclusively the pre- [533]
rogative of the men. No woman joined the band of guitarists and [535]
singers at any time, and none attempted to dance until about 10 p.m.

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garoubi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepa and Garoubi, but was non-committal over the other two, as he saw Isoga and Binduta were [276] insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages.
● [191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Motu), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepa one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

in its attitude to culture contact, is somewhat homogeneous, Inonda is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

The changes which have occurred in the pattern of outside contacts in Sivepe between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepe.

Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white men's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier, an interpreter is, at the very least, required as intermediary between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepe in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.

All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepe the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[207] it was a great pity that those American boys were being killed in Vietnam, because they were wonderful people. There was distinct
[191] disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[198] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

87| According to the Papua Report, "The core of the curriculum is training in the basic skills of communication and mathematics." (1966: 100) Of these two subject areas, mathematics is taught by a syllabus which will probably be widely applauded by educationalists. Australia has for some years made important research contributions to mathematical education. One of the most outstanding of Australian educators, Dr. Z. P. Dienes, was invited in 1964 to prepare a mathematics syllabus for Territory schools, introducing the "new mathematics approach." In 1966, this syllabus became officially accepted and the basis of the government examinations. Short courses for practising teachers were held, in the Northern District, during the summer holidays of 1966-67.
[815] The Australian mission teacher in charge of Sasembata school also went and came back with a tale which will not surprise connoisseurs of the "new mathematics": he found that the Papuan teachers grasped the principles more quickly than those, like himself, who had been well educated in "traditional" mathematics.

87| In the language field, the Australians have taken the fateful
● 191 decision to make English the language of instruction in schools and the "universal language in the Territory." This is not the place to discuss this strange decision to which S. A. Wurm has recently devoted a clear and authoritative critique which seems to me unanswerable. (1966: 135-148) The key sentence of this critique is that the English language "constitutes a reference system to a culture whose very essence is completely alient to the natives, and it abounds in concepts they cannot even begin to understand on first being confronted by them." The textbooks used in the primary school attempt to overcome this difficulty by an emphasis on formal English, using the structural method, and devoting much attention to the memorising and to some extent the manipulation and transformation of pattern sentences. There is heavy reliance on memory work and very much less reliance on conversational English and creative expression. The teachers explained to me that this bias was inevitable in view of examination pressures. It was amazing, nonetheless, to hear Standard 6 students learning very simple pattern sentences by rote by the whole class saying 20 times or more in unison: "We are going to Paris" (wherever that is). I am not critical at all of the teachers at the Sasembata school, who achieved an impressively high percentage of passes (far above the average) in the government examinations. It is not difficult to understand, however, that these students could not communicate anything very useful in English to, for instance, myself and my wife. The system is, of necessity, a great waste of the children's intelligence. The small minority who later go to Port Moresby or enter European employment will find their knowledge of English useful but the great majority, who need to be equipped for a life in Sivepe and surrounding villages, do not benefit so much from the content of their lessons as from literacy (in their own vernacular), from their experience of the school situation, its relationships and values, and many incidental observations of white customs and attitudes which are most influential acculturative

experiences. The problem remains how ideas bearing on social and economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular. Most of my informants could help me to get Orokaiva texts spelled correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

Teachers are trained both in the mission and the government system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

The educational qualifications of the teachers are one more reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

Teachers' salaries are a subject that has continued to puzzle me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

652 expected to levy. He wrote his Bishop that he would not collect the
871 tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

971 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a
[431] major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's educatin differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle
[558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could
[829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have
[191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
●[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[179] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jasembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

571 578 778 121 431 437 [192]
A (See Cat. 571, p. 148--Analyst)

177 245 249 based, is alien and seems dubious to Orokaiva. The Europeans claim that a plant needs to be looked after even if it contains no spirit; to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such 177 335 enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 871 For the rest, the skills acquired by Orokaiva over the last 15 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of [212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While 177 I could see no evidence that people have acquired mathematical knowledge 802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking [192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number" 177 for a variety of quantitative concepts, including price. Finally, one 829 must regard as an aspect of acculturation, the introduction of many

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

will make him a present; when the host village makes a return visit to the village of their previous guests, individual partnerships tend to be maintained, so that each man can make a return gift to his previous host.)

Finally a girl whose father was absent from the village invited the two strangers into her house. The father, upon his return home, accepted the hero as guest and partner and performed all the proper duties of a host tending their hair, dressing them in new raiment, feeding them, presenting them with gifts. When the people of the host village went down to the coast to return the visit, they were received most stingily, except for the man who had hosted the hero. For the hero turned out to be a man of fabulous riches with which he loaded the only guest who had given evidence of a spirit of generosity.

The hero's name, Javaite Poromo, is said to mean 'giving food to friends', a gloss I was unable to check as the words are not otherwise part of current Orokaiva vocabulary. 'Javaite' is called out at feasts in the sense of 'come hither'. The conclusion to this tale is a long recitation by Javaite Poromo on the rules of gift exchange; he is thus presented as the hero who established this institution among Orokaiva. The rules, as stated in the text, did no more than restate a number of rules I had already elicited in previous interviews and to which reference will be made below. The essential point, for the present, is that the *hande embo* is he who gives without thought of return, in other words, for whom giving is a categorical imperative. It is reinforced by sanctions: 'If you don't give, you are bad, people will pull you down'.

Unlike Javaite Poromo, most men have limited resources. Nonetheless, they follow the same rules of gift exchange as he whose resources are infinite. He is the model all must follow. Now, from the tale quoted above, it is clear that the hero accepts the notion of debt: the hospitality he had received created a debt he was obliged to repay. The Orokaiva term for this concept is *tihanga*. The repayment of the debt then becomes a 'return' for the gift. The Orokaiva term for 'exchange' (*mine* or *minemine*) is simultaneously the term used to describe the 'return'. No terminological distinction is made between an exchange of gifts, or services, or other amicable prestations on the one hand and an exchange of injuries (murders, sorcery, thefts, etc.) on the other. The term for retribution as well as reward is *minemine*. In speeches by Orokaiva ideologists who wish to criticise the old order (where vendettas were just as prevalent as gift exchange) the term *minemine* is regularly used in the merely negative sense of the old days where a clan killing an enemy was thought to 'owe' a death to that enemy's clan and the enemy had a recognised right to make such retribution.

The Javaite Poromo rules about the recognition and estimation of *tihanga* are complex. Balance is a basic factor, once it is recognised that *tihanga* has been incurred. When a return gift re-establishes balance, it is called *inono* (enough). Just what quantity counts as *inono* depends on context. All else being equal, gifts should be exactly balanced (*perukari*). Thus, at a feast taro bundles are, at some stage, tied to a pole. The height of the food pile is marked on the pole. So is the height of food pile that is received in return. Balance then means that the height of the two piles should be the same. The term *isapa* (little, too little) is used to signify that in the view of the recipient, the

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

repayment was too small. It is also used in the sense of 'earnest' of a repayment that will be made in the future. If the insufficiency complained of is not made up, effectively a *tihanga* remains.

The term *pavonei* is used to indicate that the return payment is considered excessive. Far from being considered gratifying and proper, such a state of affairs is considered provocative and unfriendly. The principal meaning of *pavonei* is a stick planted in front of a coconut palm by a man who has taken some nuts and who thus acknowledges his debt. The setting up of a *pavonei* at a feast means thus to set up in the mind of the recipients of a repayment the consciousness that they are again indebted to their exchange partners. The act of setting up such a *pavonei* is often referred to as *kambari*, a verb that means principally 'to bite, to kill'. The effect of it is that the victims of the *pavonei* will themselves return an excessive repayment, and that the whole exchange will escalate to the distress of both parties. The outcome may either be war or, if relations between the parties become more amiable, one side may decide to call off the battle by restoring the balance.

A very different and entirely legitimate imbalance is what is called a *hande mine*. This is a gift such as should be made when returning a loaned object (implements, ceremonial paraphernalia etc.). It should also be added when repaying a gift made at a time of shortage when the donor himself was badly in need of the thing he gave away. A special case of this are the food gifts made to a bereaved family after a death (when the family may not garden, and when crops from the deceased's garden are no longer consumable by his family). The bereaved family must add a substantial *hande mine* to the repayment of such food gifts because of the presumption that the sudden unforeseeable demand made on the donor's food resources would create distress. The *hande mine*, if omitted, is said to create a *tihanga*.

In some respects the notions about *hande mine* resemble what Sahlins said about the Maori notion of *hau*. The magnitude of the *hande mine* expected with the return of a borrowed object is not related to the length of time it has been kept, but rather to the success the borrower had with it. If a hunter catches nothing after borrowing a gun, he owes nothing. If he has a large bag, he is expected to be generous to the lender.

The question that concerns us here is to distinguish the situations where *tihanga* is created from those where it is not created. This is no easy matter especially because *tihanga* in close associations is extraordinarily hard to establish clearly. I have shown that Orokaiva householders do sometimes count as gifts meals of cooked vegetable presented to certain categories of kin; in comparison to western society far more things are counted in the balance. The crucial distinction seems to be that some debts are reclaimed while others are not. Debts incurred by a child may be claimed by the parents when the child is adult, but in fact the child may start quite early in making some prestations, viz. when he has a small garden of his own. There is nothing extraordinary in the pattern of household co-operation, but many things that in western society would be classified as co-operation are classified by Orokaiva after the model of *hande ari* and *tihanga*.

It is therefore futile to seek to demonstrate an exchange ideology merely

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

301

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites who tried to make ethnographic maps of the Northern District tried to find the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put on the map, as the *pereho* category included quite different groups according to who was speaking. My concern was here to give the conceptual boundaries of the exchange universe in Orokaiva terms, but there are real geographical boundaries, different for each village, which correspond to such concepts. Williams (1930) already spoke of two systems of Orokaiva morality, one within the 'sympathy group' which is his term for the exchange universe, and another where there is, in principle, a permanent state of total war even though there will always be a few islands where trading partnerships are found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and negative reciprocity, what about Sahlins's most fruitful and original category, generalised exchange? It is possible to find a category of relations among Orokaiva where it is denied that any *tihanga* is ever recognised. There are plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I doubt however whether that particular category corresponds to 'generalised reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

nut or cigarette. Secondly it includes help in most everyday tasks, including help with housebuilding and the like. Thirdly, it includes the very important category of very close kin who are deemed to pool their resources. Thus bridewealth, mortuary and other big prestations involve, as a matter of course, an entire local plant emblem group where every member is expected to put in all he has. Such groups have corporate leaders, usually the oldest agnate and such leaders have supposedly full authority over all the group's resources. Within those narrow confines, they need not cajole like the *hande embo* but theoretically they can instruct. They always told me this. It so happened that I did not know any families who habitually followed such instructions. In any case it is at least theoretically possible to separate out a category of actions based on structuring principles such as 'verticality', 'horizontality' rather than reciprocity.

Orokaiva ethnosociology does not seem to recognise a *category* of rules that lies between incorporation and balanced exchange. Yet, Sahlins has argued, on what seems irrefutable evidence, that in societies such as Orokaiva 'balanced reciprocity is not the prevalent form of exchange' and even that it is 'inherently unstable' (1974: 223). According to him what is prevalent and stable is generalised exchange. Even if we subtract a little from Sahlins's generalisation to allow for the meticulous strategies of some leaders, for the tendency to abandon 'balance' where western money becomes important, for the horror of debt bondage found in egalitarian societies like Orokaiva, for pooling in corporate groups, we are still left with many facts of generalised reciprocity.

We must, moreover, reject any attempt to explain such facts as 'organisational', as mere strategising, in contrast with other tendencies of the system that might be termed 'structural'. Such an assumption, though common enough, implies that it is sometimes possible to explain the relation between a given material condition and a specific cultural norm by the mediation of a symbolic system (as we have been doing above) but that sometimes it is not possible; that when we are dealing with deviations from the norm such deviations require only a 'common sense' explanation.

What then are we to say of the innumerable transactional sequences where, in principle, one of the transactors is in debt, but where nobody is at all interested in balancing the account? The debts are not reckoned but if the creditor feels the need for some help, he goes to his debtor and asks him for it. Can such sequences be incorporated as part of the semiotic model we have outlined? We think they can. We cannot incorporate them as part of equivalence rules, because such rules normally, at least among Orokaiva, do specify strict balance. We can, however, deal with them under the heading of translation rules.

Let us say that for years A has been helping B in a long list of predicaments. B is trouble prone while A is solid. B is generous enough but he rarely has something to give. A tolerates the situation without demur because he likes the B household; he does not at all feel anxious about repayment. Nor does B feel particularly ashamed of his position. In such circumstances, there will be a long series of gifts, for which the translation rule will be something along the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Norton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington
197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 The Orokaiva people number roughly 26,000 and are divided
[161] into about twelve tribes. The tribes are very loose units
[619] and recognise no single leader and before European contact,
[423] warfare within the tribe was not uncommon. ...there are no
[614] land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 There has been European contact of some form over a long period.
795 The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 The initial Japanese occupation of Papua took place in the
177 Northern District as the Japanese marched towards Port Moresby via

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any sense of unity. The case of Sangara is somewhat different; first of [197] all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hohorita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [659] district to amalgamate villages. A number of the people now living in Hohorita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hohorita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Sombou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Sombou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hohorita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since 629 the eruption form a rather tight cluster, quite different from the intersecting circle pattern I described for the Sasembata district. When a person in Sombou died, the whole of Hohorita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hohorita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hohorita while Sombou, with the assistance of Kakita, entertained the Uhuru'undi

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

562 through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. 614 Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant [582] emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

602 In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

121 In this essay, I shall present data on the friendship universe and show that 572 Orokaiva have institutionalized friendships of several types, some of which 602 are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

101 Between the districts where the data were collected, there are slight differ- 197 ences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata 601 district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

601 Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution. 574 292 177

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves. 574 191 198

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words. 574 534 574 533

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films. 574 535 [177]

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows. 574 562

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m. [533] [535]

177 829 concepts drawn from the scene of world affairs. While among the Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The political orientation displayed was a mild kind of nationalism, and a sense of closeness to newly independent non-white states. But the [203] information, derived from radio broadcasts and speeches by councillors, introduced an acculturative kind of perspective. Its dissemination is being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role in village life. It was earned by men who were away for limited [464] periods working on plantations. Money wages on plantations were, and are, extremely low; wages for agreement labour in 1962 were, for instance, $39 per annum for the first year of which $12 is paid out in monthly installments and the rest at the end of the year. In the second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages are a great deal higher than this; most Sivepe men who were absent on employment worked on urban jobs. At the same time, a regular income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation rates of pay, nor were they interested in "carrying" jobs for the 435 government even though wages in that case were higher. They were also 438 indifferent to selling their garden products on the Saiho and Popondetta markets, as there were frequent gluts, prices were low and carrying goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than 511 the subsistence sphere. Money was essential for payment of taxes and for a minimum of clothes, often acquired cheaply at jumble sales. Otherwise, it was used to buy tobacco, food for feasts, kerosene mainly used for feasting occasions, cartridges for hunting, again for feasts. Among the larger purchases made were radios, pressure lamps, bicycles, tools; all these, however, could never be paid for with current income. One had to depend on special windfalls: a gift from 459 a relative in town, a bride price. Money was not only for spending, 556 however; it was also for saving. I shall refer to the organisation of corporate saving later; in addition a number of Sivepe men had savings, of the order of $10-$20, sometimes more, hidden away. This money was kept for special occasions, but in addition, the very fact of possessing it was regarded as important. I was once told that Europeans were powerful because they had money; the Orokaiva could get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited 437 extent regarded as a standard of value. If we accept some model such as was suggested by Salisbury (1962), we may say that the Orokaiva have three spheres of exchange: a subsistence, luxury and ritual sphere, while bank notes are used for special, often ritual occasions. [461] In the acquisition of luxury goods of any kind, including money, the Orokaiva tend to weigh the benefits gained by them against their cost in time and unpleasantness and against the benefits that can be gained from other investments. Money is, in general, wanted only if it can

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[209] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[178] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

875 spite of this vast differential, the mission continues to recruit
[465] certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 held A course certificates or better. The amount payable ranged from
895 $240 per annum to $1000 per annum according to qualifications and skin colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
871 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Sasembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago, thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

5; Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *arara*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

651 [241] proceeds to be retained by the government was paid into the Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

657 241 [871] Hulling, marketing and administrative costs incurred in running the plantations scheme were paid from the Native Education Fund. The same fund provided a coffee pulping machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in [651] the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

465 [211] The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each [212] man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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(1) The vendors were illiterate and signed the documents by the putting of marks.

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241 65 [466] [625] [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

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212 C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

592 Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of
626 the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission
177 station) need to be constructed. The trained carpenter leads such
335 enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of

[212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking

[192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was
121 a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

245 [654] plots but agricultural officers intended to launch a campaign in the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

● [221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 [434] Not all receipts for sales of coffee from the sample plots had been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organization of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepe and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepe and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasua and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepe neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepe. The growth of the [245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[461] [262] [251]

[221] New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

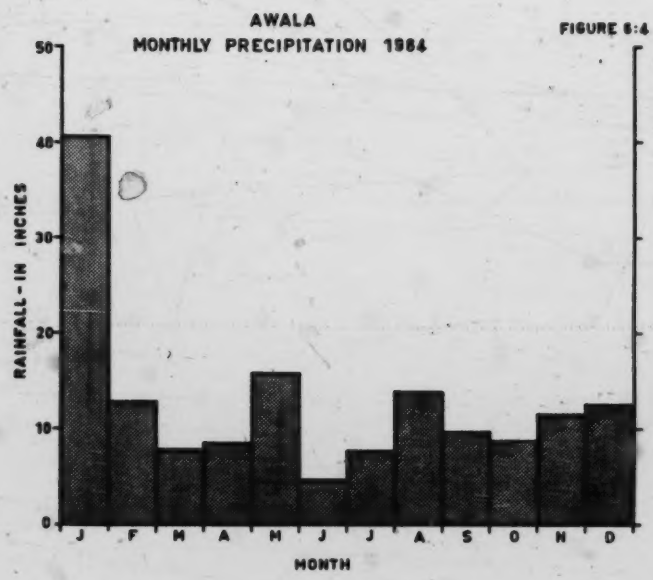

FIGURE 6:4

much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ins, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

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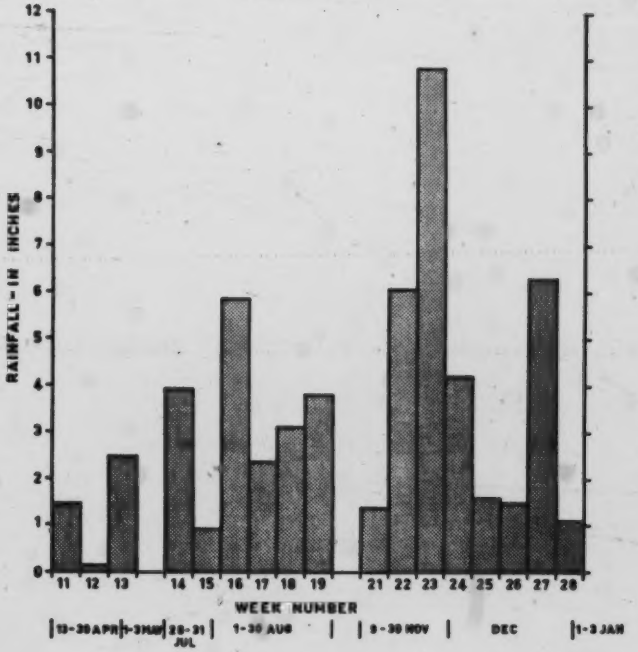
SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 28 ONLY) FIGURE 6:5



512 Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a fact dictated largely by the density of occupation where intensive [224] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance [512] and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig high on the slopes of Mt Lamington but this has ceased now they [136] 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used on special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

222 252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

Another 30 per cent of the time is devoted to traditional dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

(b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCGS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

[1] See, however, the adjustment for additional data, pp.136, 138.

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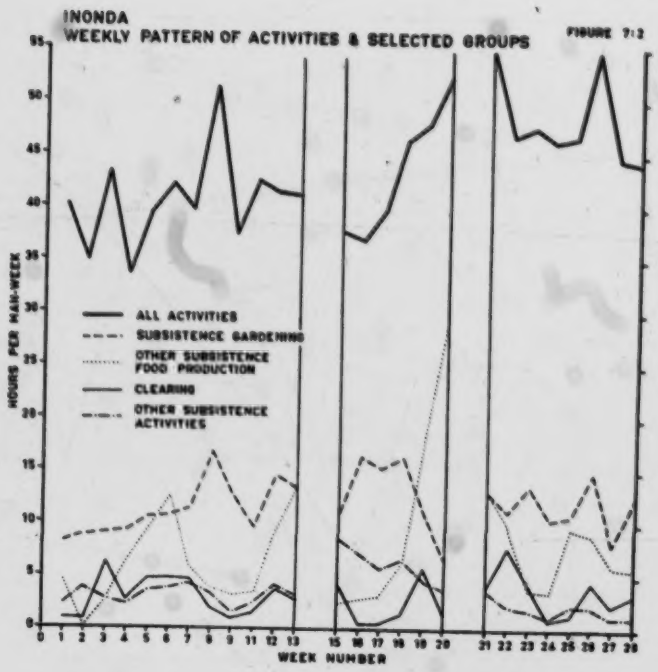

towards the end of this season. Due to the intensive demands on labour for sago-making, men often spend all the daylight hours on this task, so that the average working day is longer than at other times, reaching 7.5 hours. The time spent on sago is at the expense of not only leisure but also of clearing, subsistence gardening, other subsistence activities and involvement with external agencies (particularly council work). Although sago-making is normally restricted to the dry season, in 1964 one household had to resort to sago near the end of the wet season, because the people concerned had spent several months late in 1963 at Saiho hospital and, on returning to Inonda, had no time to clear sufficient gardens to provide food throughout the wet season.

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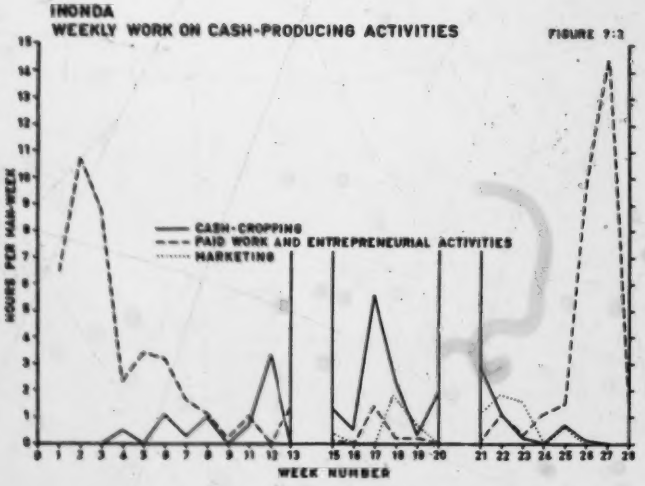

222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
leaves beside paths while walking to or from other activities and
224 such gathering may not be recorded. In addition, a considerable
221 amount is gathered by children. Hunting also increases during the
[411] dry season, with the increased number of wild pigs. However, a
significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] - surpluses (and their counterpart, shortages) are frequently the
[574] result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end
[431] of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence sector shows a pronounced seasonality (see Table 11:6). This is
221 largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A

A. [See Category 512, pp. 166-167--Analyst]

437 The major part is received from Inonda people but a significant
221 proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above[1] between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

434 (iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors
432 are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

[1] Page 235.

512 early on Sunday morning, but otherwise Saturday and Sunday are spent in much the same way as the other days of the week. Most people trim the grass and clear away any rubbish around their houses on Friday mornings. This is known as "council work" as it is made mandatory by a council by-law. It takes only an hour or two and not all villagers do these chores at this time.

221 Although there is some seasonal rhythm in subsistence activities, it does not seem to be very great, and relatively few other activities are affected by seasonal variations. The obligations associated with death, marriage and ceremonial activities seem to have a much greater effect on the patterns of work.

462 House-building, hunting and bush-clearing are primarily the province of men. Women's work includes weeding, harvesting, and domestic chores. Both sexes co-operate in planting, collecting firewood, stacking and burning dead wood, and foraging for wild foods. Men appear to work jointly with their wives much more in the cash crop gardens than they do in the food gardens.

125 A brief survey of patterns of work was undertaken for a period of six weeks (from 2nd July to 12th August 1962). Such a short study cannot give any indication of seasonal variations, nor can it be considered as necessarily representative of the year as a whole. In fact, owing to the death of one of the village elders during our stay, a considerable amount of time was spent in mourning and attendant social obligations. But since the beginning of 1959 there have been an average of two deaths per year in the village, and when one considers that the villagers are also involved in deaths of relatives in other villages, in marriages both here and elsewhere, in feasts, church celebrations and other commitments, the amount of time spent in social obligations during this period may not have been unduly out of proportion. The survey was undertaken as a pilot project only, on the basis of which it is proposed to organize a much deeper study of time patterns among the Orokaiva over a

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The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
[417] Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

	Men	Women	Average
461 221 462 [224] [226] [222] Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
[342] Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
[241] Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit rellatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations:: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

241 Food must be planted at most periods of the year as most
221 Orokaiva crops cannot be stored, but there is a difference according to the purpose of the plantings. Seed planted outside the optimal period can be grown for no purpose except subsistence; plantings made in the optimal period may be in preparation for feasts. Their purpose is not only subsistence but also abundance. The Orokaiva calendar contains a specific feasting season which immediately precedes the "planting" season. Taro planted between July and September reaches maturity between April and June. This is the season of feasts and abundance.

241 A distinction must be made between the ideological and the
221 statistical work calendar. The latter has been set out here from
924 data collected by Waddell (n.d.) in Sivepe and shows that at no period agricultural activities are confined to one particular phase of the work, such as planting or weeding or cultivating or harvesting. There are, however, clear fluctuations showing an emphasis on planting during certain periods and on harvesting, etc. during other periods (Table 5). The ideological calendar, as given to us by informants, both in Sivepe and Hoborita, distinguishes seven phases related to the annual cycle of three forest trees. The calendar noted by Crocombe in Inonda (1963: 6) though more summary, follows the same principle, while differing in some minor details.

1. When the garepa flowers, the taro should be ready to harvest. (The reference is, as in this whole calendar, to the main taro harvest.) But this flowering has several phases: the flowers are first white, later yellow, finally bloodred. When some of them are bloodred, the taro is "really" ready. This is the time when small feasts are given for the owner of the land, but not yet big feasts, for it is only the first of the crop that are really ready.
2. When all the garepa flowers are bloodred, feasting time has really started. This is, in the Mount Lamington area, around Easter time.
3. Another sure sign of the approach of the feasting season is the ripening of the tauga nut (called hauga in the Sangara dialect). While garepa is watched during the time of shortage before the main harvest, tauga is watched during the time of plenty. The nuts are plentiful, delicious and rich in first-class protein.
4. At the end of May, about two months after the beginning of the feasting season, white flowers appear on the baramba tree. This is a sign that the seeds should now quickly be planted in the land. The dry period is beginning; the period when clearing and burning can be done with the least loss of fertility. As these flowers appear, feasts will still be in progress in the villages, but the old men will begin to make moralistic speeches that feasting should now be over and people should return to garden work.
5. Soon after this, perhaps a month later, the leaves of the tauga begin to fall; it is good if by that time a good deal of

A [See Cat. 116, pp. 209-210--Analyst]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepe over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepe and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

TABLE 5

MEAN TIME SPENT PER MAN-WEEK ON
SUBSISTENCE ACTIVITIES IN SEASONAL VARIATIONS
IN SIVEPE, 1964

Source: Eric Waddell, manuscript

Activity		Periods			
		I: 3 Feb - 3 May	II: 20 Jul - 6 Sept	III: 9 Nov - 3 Jan 1965	Total
Clearing		4.4	2.4	3.3	3.7
Taro:	Planting	1.9	2.8	3.0	2.4
	Maintenance	3.0	3.9	4.5	3.6
	Harvesting	3.4	1.9	3.0	3.0
	Marketing	0.1	-	-	0.1
Sweet Potato:	Planting	-	-	0.1	-
	Harvesting	0.7	1.1	2.4	1.3
	Marketing	0.1	-	-	0.1
Yam:	Planting	0.6	-	-	0.3
	Maintenance	-	-	0.2	0.1
	Harvesting	0.8	0.1	0.6	0.6

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

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TABLE 5
(Continued)

Minor Crops:	Planting	-	0.1	0.1	0.1
	Maintenance	-	-	0.1	-
	Harvesting	1.0	3.4	1.1	1.6
	Marketing	0.1	-	0.3	0.1
Fencing		-	-	0.2	0.1
Fishing		0.2	-	0.5	0.2
Hunting		0.7	0.8	4.8	1.8
Sago-making		-	1.5	0.4	0.4
Preparation of Tools and Equipment		0.3	-	0.5	0.3
Construction		2.2	1.6	0.6	1.6
TOTAL		19.7	19.8	25.8	21.3

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
QJ23 Orokaiva QJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive utilisation of the forest has greatly reduced its plant and animal [512] resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

322 252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 3. Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.

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Plate 4. Sivepe - women are responsible for keeping the central area free from weeds and refuse, as part of 'Council work'.

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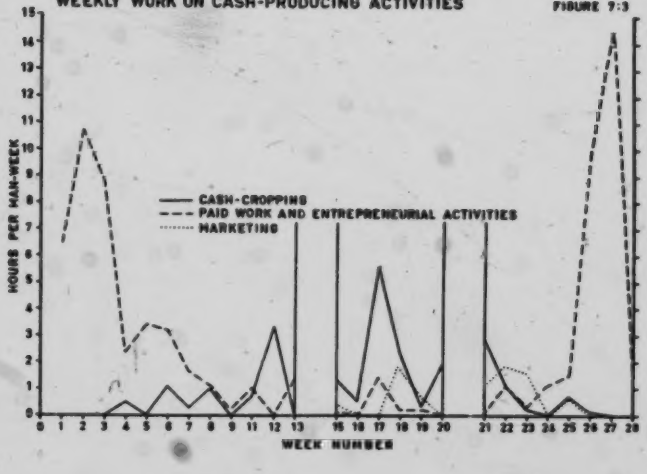
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



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The gathering of forest plants receives more attention during the dry season to compensate for lower garden production. The increased dietary significance of such plants at this time is, perhaps, understated in Table 7:3, since women often collect green leaves beside paths while walking to or from other activities and such gathering may not be recorded. In addition, a considerable amount is gathered by children. Hunting also increases during the dry season, with the increased number of wild pigs. However, a significant factor in 1964 was the acquisition of a shotgun in July by the leading man (with financial assistance from others, who thereby acquired rights of use). From this time, hunting to obtain meat for both food and marketing increased, becoming most popular during period III when marketing also was most frequent. Due to the drop in water levels, the time devoted to fishing during the dry season is much less than in the rest of the year, but over the year as a whole, more time is spent in it than in any other single activity.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

433 184 [24] [222] population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in the hinterland of a village which is located at the forest-grassland boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

461 The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

[m] The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases only about one-third of this is directed towards cash production. Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

433 184 In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100\,\frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.
C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.
L = acreage of cultivated land per head of population per annum.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two [222] main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a single tree is distributed by the rightholder(s) particularly to [462] those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods [342] I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof-[824] sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

[1] See pp.235-44.

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

226 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when the rivers are low and the water is clear, and spearing is then 222 easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided between the lineages. Boundaries are marked by trees (es- 422 pecially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

423 241 245 miles away and another to collect betel nut about fifteen miles away.(1)

The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

222 [262] Unlike in other parts of the Orokaiva country sago does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights. Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

423 241 245 A total of 21 sago trees was accounted for on Inonda lands, but the bulk of sago supplies is obtained from outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

	Men	Women	Average
Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

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[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was 433 self-sufficiency. Traditionally, the people of 24 New Guinea were subsistence cultivators plant- [226] ing their food crops in small clearings in the [224] forests and supplementing this food supply by [222] fishing, by hunting the animals which live in the forests and on the grasslands and by gather- ing the edible produce of wild vegetation, notably sago. Only the simplest implements [412] were available: stone axes with which trees could be laboriously felled or ring-barked; [392] fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 24 concept of saving and no profit motive, tended 171 to be resistant to change; innovation was unnecessary. But with the coming of white men [412] possessing a superior technology, an important change occurred; steel axes, knives, and spades

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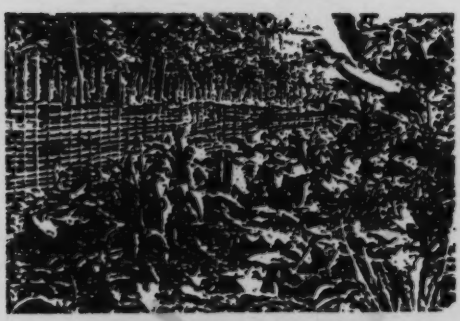

Fig. 6. *A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high*

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter [224] the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is [825] not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

241 c) *Division of labour.* Most garden work is performed by both men and women, but cut- 462 ting large trees is men's work only, and harvesting is performed by women only. Incidentally, [482] the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production 222 is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

[P.9-B)

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Fig. 7. The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepa land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect these, to forage and to hunt. Although hunting expeditions do
[222] occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepa, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepa nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[293] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepa people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 70 Sivepa people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

311 products, such as slow-growing trees, which are used for house
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 825 571 to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] [431] [437] While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give [262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which [778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 262 224 431 773 These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 825 Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

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311 standards of subsistence agriculture.[1] Their own property totals 138 acres.

c. Hunting and fishing

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[136] These pursuits add variety ot the diet but provide comparatively little food. Most of the game surviving in the area is small and there are no large fish to be found in the mountain streams. Small marsupials such as the cuscus, bandicoot and, more rarely, the land wallaby, together with flying foxes and birds are the main sources of animal protein. Nets and hunting spears are generally used to catch these animals after they have been flushed out by the hunter's dog. Traps are seldom set for game but we were told this formerly was a more common technique. Snares for the smaller types of animal are often made by boys and one or two of the men. Two members of the sample owned licensed shotguns and these were very effectively and economically used. One of these men would place his services at the disposal of anyone who supplied cartridges for the gun; the other allowed a limited circle of people to use his gun. The guns were frequently used for hunting at night in the dry weather during our survey.

226 Neither of the two forms of concerted hunting common among other Orokaiva (the drive towards a pig net and grassburning, Williams 1930:43) is practised to any extent as there are few wild pigs and little grassland in the area.

Spears and fine-mesh nets are used in local streams to catch eels and the 7 types of small fish found. This task is shared by men and women usually when the water is low during a period of dry weather. They may search for fish with a net along the Sohu River wherever it passes through land held by a member of the village, but the small rock dams built by a man to form pools suitable for the use of the spear are made only where the river passes through his own land.

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[1] This requirement is 2.2 acres per capita. Barrau (1958:75) says that 2.5 to 5 acres per capita are sufficient for this type of agriculture in Melanesia, assuming the average area of garden is 0.25 acres and that the duration of bush fallow ranges from 10 to 20 years. In March 1951, 40 square miles of unrestricted land were considered suitable for resettling 4,500 of the survivors of the recent eruption (Plant 1951:4; Belshaw 1951:9). It was felt that these 5 acres per capita were enough only to meet the immediate requirements of traditional subsistence gardening for the next few years. (It was well-wooded and appeared 'most productive' and easily accessible by road.) Considerable population increases were anticipated.

423 [224] [220] The only local hunting land held by Sivepe people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[CS7] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

[262] In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the [224] domestic pig, and birds and small marsupials which are hunted. In [226] Inonda and other areas more low-lying than Sivepe, rivers are larger and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that [262] yams and sago also are very recent introductions into their area. The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sera',[3] as distinct from the ordinary taro gardens, called 'pure'. [824] The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

431 (ii) Exchange. The most common transactions are the daily ex-
435 changes of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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[1] Breadfruit is common only in the inland areas.

[824] [2] Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

[3] Such gardens are often only roughly cleared and not weeded, thus reducing labour.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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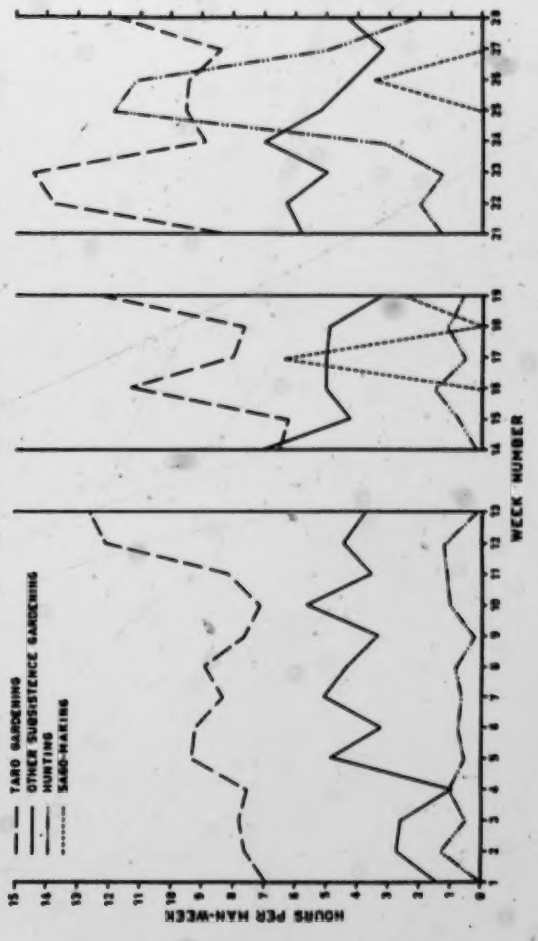
FIGURE 8.3

SIVEPE

WEEKLY PATTERN OF ACTIVITY-SELECTED SUBSISTENCE ACTIVITIES



244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a fact dictated largely by the density of occupation where intensive [224] utilisation of the forest has greatly reduced its plant and animal [512] resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 223 dry weather.
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Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro [461] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[46] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

[224]

[476] Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

The activity patterns of selected individuals

128 The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 35 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village.

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[1] See p.292. A 4

A, [See Category 433, p.292--Analyst]

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Saiho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timumu clan cut it up and sold it, giving all the proceeds to Linton's mother.
[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

472 Linton faced a similar conflict between custom and cash in his hunting activities. As
224 the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would
[571] hunt on their behalf if they provided the cartridges and a cash payment of 10c with each cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 52.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-35. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Sasembata clinic.

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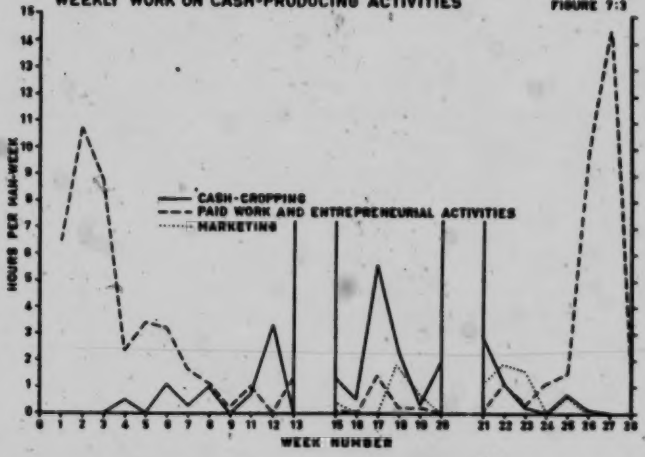
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES

FIGURE 7:3



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The gathering of forest plants receives more attention during the dry season to compensate for lower garden production. The increased dietary significance of such plants at this time is, perhaps, understated in Table 7:3, since women often collect green leaves beside paths while walking to or from other activities and such gathering may not be recorded. In addition, a considerable amount is gathered by children. Hunting also increases during the dry season, with the increased number of wild pigs. However, a significant factor in 1964 was the acquisition of a shotgun in July by the leading man (with financial assistance from others, who thereby acquired rights of use). From this time, hunting to obtain meat for both food and marketing increased, becoming most popular during period III when marketing also was most frequent. Due to the drop in water levels, the time devoted to fishing during the dry season is much less than in the rest of the year, but over the year as a whole, more time is spent in it than in any other single activity.

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[411]
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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

then sweet potato and minor crops. After the Mt Lamington eruption, several rivers flooded and, with the exception of Mamoko's, all the Inonda people's yam gardens were destroyed. The supply of yams has gradually been increased from those surviving in his garden, but he and his sons are still the only people with large holdings. Mamoko spends a considerable amount of time assisting others in subsistence activities; in particular, he cleared and maintained a sweet potato garden on behalf of the widow and also helped her in fencing, in erecting a yam storage house and in constructing her house on the new village site. He also spent 30 hours helping his son to make sago. His eldest son's wife and the widow often harvest in his gardens and cook for him. Among his other food-producing activities he spends 2.5 hours a week on hunting, using a spear and accompanied by his son's dog; he usually gives the produce to his son's wife.

Mamoko was never absent from the village for a whole day, but spent 10 days inactive through sickness. Largely because of this, he was unable to attend a number of feasts and spent less time than anyone else in this way. Like most of the men, he spends little time on council work; this and other activities related to external agencies and the monetary sector account for only 4 per cent of his time. In other words, his activities are now almost wholly subsistence-oriented, although he maintains an interest in and encourages others to plant cash crops.

Embogi. A widow aged about 51, Embogi was born in Urio village and retains close links with her kin there. Her first and second husbands, who were brothers, belonged to a subordinate branch of the main lineage in Inonda. Her third husband, who had one other wife living, died in 1962. She has a son and a daughter from this last marriage, and has remained in Inonda partly to maintain her youngest son's rights to land inherited from his father. She maintains a separate household with these two children but in August her eldest son and his wife (Marjorie) moved in with her prior to building their own house on the new village site. Embogi's second son (by her second marriage) normally lives with her but for most of the survey was staying with a classificatory father while attending the administration school at the settlement block. Her house was built mostly by this son and Mamoko, the eldest son being absent at the time at his wife's father's funeral feast in Hisherita.

Although Embogi's working week is considerably longer than Mamoko's, it is shorter than that of most others. However, 80 per cent of her time is devoted to productive

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

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[1] This figure was determined by using yield data gathered in Sivepa during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 3.3 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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1 For a detailed account of the activities of these two men, see pp.117-21, 126-7.

2 See pp.114-17.

A, [See Category 5[illegible], pp. 117-119; Category 461, pp. 120-121; Category 512, pp. 126-127--Analyst]
B, [See Category 461, pp. 114-117--Analyst]

Chapter 11

Exchange patterns: Inonda

437 [431]

The nature and volume of transactions

The Inonda people carry out exchanges of subsistence produce, labour services and items derived from trade stores not only with each other but also with people from other villages, with settlers and with kinsmen or friends who are wage earners. Reciprocation for a gift is not necessarily on the same occasion, or in the same quantity or of the same item. The exchanges effected by the 21 adult members of the village were recorded simultaneously with the data on activity patterns, a total of 2,782 man-days being covered.

(a) Non-monetary sector

438 [262]

(i) Subsistence produce. Table 11:1 shows the total amounts of each item given and received by the villagers in all non-monetary transactions. The dominant position of taro in the horticultural system and the diet is emphasised by its role in exchanges. The economic importance of the sparsely-populated grasslands and hill areas is also clear from the fact that wild pig is the next most important item after taro; other hunted produce and fish are also significant. Some allowance should be made for the fact that pig carcasses, weighing up to 200 lbs are often given whole rather than after the removal of the gut and bones.[1] In addition, portions of meat frequently pass through a 'chain' of exchanges and are thus counted several times. This process occurs more rarely for vegetable produce. These qualifications, however, are not sufficient to diminish the significance of pigmeat in the exchange pattern. Sweet potato is the second most important crop (see Table 4:9) and the third most important item in subsistence transactions. Banana, sugar-cane, yam and pumpkin are the main subsidiary crops and are also significant in the exchange pattern. The comparatively small

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[1] This practice is determined partly by the belief that in certain circumstances, such as when using a new gun, spear or new hunting dog, a hunter should not keep the prey to himself.

[TEXT CONTINUED ON PAGE 230

241 to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

241 Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

[462] All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

● 244 Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product. [411]

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

226 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when 222 the rivers are low and the water is clear, and spearing is then easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided 423 between the lineages. Boundaries are marked by trees (especially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

only permissive rights at Inonda or any nearby place. He has been living at Inonda for some years on a temporary basis and is dependent for gardening land on his relatives by marriage at Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

- Informants claimed that a man in need has the right to make gardens on the land of the mother's brother though this is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

Hunting and foraging rights: Any primary member of the Andiriha and Jego'undi sub-clans in Inonda can hunt or forage on any portion of the Inonda land which is covered with virgin bush, kunai grass, or second growth. Likewise any villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

transfer at a feast shortly after the grandson finished his schooling. Along with the rights he was given the obligation to look after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

All Inonda people, along with all members of the Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

Fishing rights: For the purpose of fishing rights, the Girua river is divided into sections, each of which is associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

The Inonda portion of the river is held jointly by the Andiriha and Jego'undi sub-clans and any primary member of either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for whilee they cannot fish there without

	Men	Women	Average
461 221 462 [224] [226] [222] Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
[342] Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
[241] Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

482

[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was self-sufficiency. Traditionally, the people of New Guinea were subsistence cultivators planting their food crops in small clearings in the forests and supplementing this food supply by fishing, by hunting the animals which live in the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements were available: stone axes with which trees could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 24 [226] [224] [222] [412] [392] [128]

Such an economy, in which there was no concept of saving and no profit motive, tended to be resistant to change; innovation was unnecessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

433 24 177 [412]

[P.I-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

241
419

Fig. 6. *A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high*

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

[224]
[825]

241 462 c) *Division of labour.* Most garden work is performed by both men and women, but cutting large trees is men's work only, and harvesting is performed by women only. Incidentally, the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

[482]

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production

222 is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

[P.9-B]

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepe land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire, valuable trees were destroyed and villages endangered. The yield
224 in meat was much higher, however, so that in Inonda, meat actually
223 became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepe, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepe nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[293] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepe people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepe people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

694 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early converts belong to the Jegase clan. Plant emblem groups (or lineages) 794 are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the ● [229] pastor himself. Shortly before my arrival in Sivepe, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the lands of the 184 transport driver and one-time councillor, who played the role of lay-preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepe were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepe by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepe.

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *aungo* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

241 311 standards of subsistence agriculture.[1] Their own property totals 138 acres.

c. Hunting and fishing

224 [136] These pursuits add variety ot the diet but provide comparatively little food. Most of the game surviving in the area is small and there are no large fish to be found in the mountain streams. Small marsupials such as the cuscus, bandicoot and, more rarely, the land wallaby, together with flying foxes and birds are the main sources of animal protein. Nets and hunting spears are generally used to catch these animals after they have been flushed out by the hunter's dog. Traps are seldom set for game but we were told this formerly was a more common technique. Snares for the smaller types of animal are often made by boys and one or two of the men. Two members of the sample owned licensed shotguns and these were very effectively and economically used. One of these men would place his services at the disposal of anyone who supplied cartridges for the gun; the other allowed a limited circle of people to use his gun. The guns were frequently used for hunting at night in the dry weather during our survey.

226 Neither of the two forms of concerted hunting common among other Orokaiva (the drive towards a pig net and grassburning, Williams 1930:45) is practised to any extent as there are few wild pigs and little grassland in the area.

Spears and fine-mesh nets are used in local streams to catch eels and the 7 types of small fish found. This task is shared by men and women usually when the water is low during a period of dry weather. They may search for fish with a net along the Sohu River wherever it passes through land held by a member of the village, but the small rock dams built by a man to form pools suitable for the use of the spear are made only where the river passes through his own land.

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[1] This requirement is 2.2 acres per capita. Barrau (1958:75) says that 2.5 to 5 acres per capita are sufficient for this type of agriculture in Melanesia, assuming the average area of garden is 0.25 acres and that the duration of bush fallow ranges from 10 to 20 years. In March 1951, 40 square miles of unrestricted land were considered suitable for resettling 4,500 of the survivors of the recent eruption (Plant 1951:4; Belshaw 1951:9). It was felt that these 5 acres per capita were enough only to meet the immediate requirements of traditional subsistence gardening for the next few years. (It was well-wooded and appeared 'most productive' and easily accessible by road.) Considerable population increases were anticipated.

423 [224] [226] The only local hunting land held by Sivepo people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Baiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

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[1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

24] pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

[262] In Sivepo, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the [224] domestic pig, and birds and small marsupials which are hunted. In [226] mounds and other areas more low-lying than Sivepo, rivers are larger and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that yams and sago also are very recent introductions into their area. [262] The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'gere',[3] as distinct from the ordinary taro gardens, called 'pura'. [824] The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

43] (ii) Exchange. The most common transactions are the daily ex-
13] changes of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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1 Breadfruit is common only in the inland areas.

[824] 2 Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

3 Such gardens are often only roughly cleared and not weeded, thus reducing labour.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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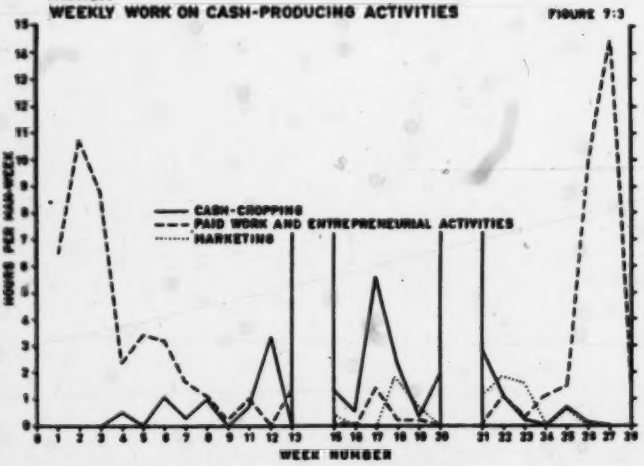
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



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[411]
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The gathering of forest plants receives more attention during the dry season to compensate for lower garden production. The increased dietary significance of such plants at this time is, perhaps, understated in Table 7:3, since women often collect green leaves beside paths while walking to or from other activities and such gathering may not be recorded. In addition, a considerable amount is gathered by children. Hunting also increases during the dry season, with the increased number of wild pigs. However, a significant factor in 1964 was the acquisition of a shotgun in July by the leading man (with financial assistance from others, who thereby acquired rights of use). From this time, hunting to obtain meat for both food and marketing increased, becoming most popular during period III when marketing also was most frequent. Due to the drop in water levels, the time devoted to fishing during the dry season is much less than in the rest of the year, but over the year as a whole, more time is spent in it than in any other single activity.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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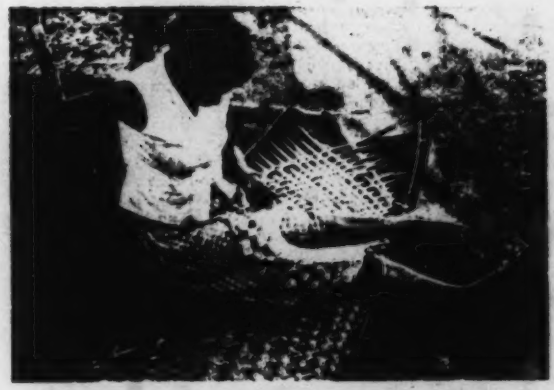

Plate 7. Women spend many hours making string bags.

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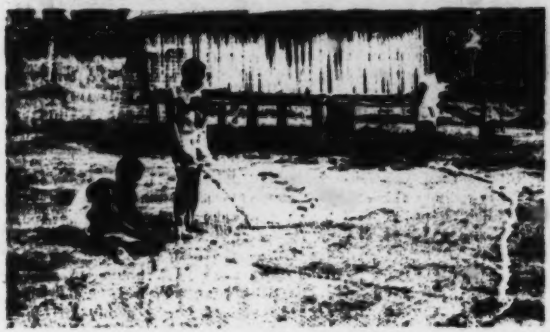

Plate 8. Men from Inconda and Mosou villages repairing a large fishing net preparatory to an all-night fishing expedition.

ancillary tasks, other tasks unrelated to the main task, cooking and washing. 461

The activity observed most frequently was forest clearance. Over twelve occasions, the main task occupied 44 per cent of the total time. Due to the intensive and exhausting nature of the work, resting and eating occupies one-quarter of the time. For the same reason, almost one-third of the time spent on sago-making is in resting. Sago-making is the most intensive of all the activities practised by Inconda people: the observed occasions have a mean duration of over eight hours, 50 per cent of which is spent on the main task of producing the starch. Subsistence gardening tasks are in general less intensive than sago-making or clearing: travelling to the place of activity accounts for a higher proportion of the time, and work on the main task and other tasks amounts to less than half the total. Resting, however, accounts for less of the total than it does with sago-making. The planting and harvesting of taro appear to involve the most intensive work in gardening.

Overall, time spent working on all tasks as opposed to time spent resting or travelling appears to be between 50 and 60 per cent of the total. There is no significant difference between cash croppers and non-cash croppers. The latter tend to spend a greater proportion of their time in travelling - perhaps because they are mostly older people. Time saved in travelling by cash croppers seems to be used as much for leisure as for productive work.

The nature and size of work groups

Most activities are carried out by individuals working alone (see Table 7:15), although husband and wife often perform separate tasks in the same garden. Tasks in food gardens are rarely performed jointly: only in harvesting yams and fencing does the mean size of work group reach even 1.5 individuals. However, certain other subsistence activities do involve larger work groups. Of these, sago-making involves the largest mean number of people, since a sago-palm contains enough food to maintain several families for some weeks and it requires intensive labour to extract the starch before it spoils. Thus, those who decide to harvest a palm almost invariably call on others for assistance.[1] Spear-fishing is often undertaken by individuals alone, but groups of men or a number of households may fish together at a particular place. The largest fishing groups occur on the rare occasions (twice during the survey) when large nets are used. At such times people from several villages (Inconda, Mosou and Ijika) may collaborate to spread the nets (one from each village) across the river, to construct temporary dams of 226 476

[1] See p.260. A

A. [See Category 476, p.260--Analyst]

[TEXT CONTINUED ON PAGE 157]

branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the houseowner alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

Inomba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Uruwa mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Inomba was absent for 88 days, 98 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popendetta.

Inomba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isumba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isumba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isumba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold sigaro (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. [776] A closely related activity is church attendance, which occupies over an hour a week because Isumba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

221 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

216 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when 222 the rivers are low and the water is clear, and spearing is then easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided 423 between the lineages. Boundaries are marked by trees (especially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

transfer at a feast shortly after the grandson finished his schooling. Along with the rights he was given the obligation to look after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

All Inonda people, along with all members of the Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

Fishing rights: For the purpose of fishing rights, the Girua river is divided into sections, each of which is associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

The Inonda portion of the river is held jointly by the Andiriha and Jego'undi sub-clans and any primary member of either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hobota. No payment is made for this privilege, not is any part of the catch given to the host village.

On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

226 Only three Inonda men exercise fishing rights outside Inonda. The first two are members of the Jego'undi sub-
427 clan who were given rights to fish in the Sambogo river from Ere creek to Mosou village by their mother's brother along with the hunting rights already described. The part of the river concerned is adjacent to the part held by the Andiriha sub-clan. As Mosou village is situated close to the Jego'undi portion of the river, some Mosou men who have distant kinship connections with the Jego'undi are permitted to fish there. All parties confirm that no payment is made for this privilege but we have observed that the Mosou people make gifts of betel nut and sago to the Jego'undi. The Inonda councillor was given exclusive rights to fish part of the Sambogo river (adjacent to the Andiriha part but at the other end from that held by the Jego'undi) along with hunting rights to the surrounding lands.

241 Cash crops: Only small areas of land are being used for cash cropping (see map page 108). In 1955 three households planted a total of 801 trees on 1.85 acres of land situated near the Girua river on Hohota lands and these trees
241 are now in production. They are planted on land to which the
429 planters previously held only permissive rights of occupancy, although since 1961 these rights have been strengthened by registration under the Higaturu Local Government Council land registration scheme (which is explained in Appendix A). The problems associated with this land are discussed on pages 72-75. In 1961 another man planted 0.41 acres of cocoa on Inonda land in which another lineage has prior rights, but this will not produce for some years yet. A fifth man has staked out 0.6 acres of land at Inonda which belongs to a lineage other than his own, but because of the resultant dispute he will probably not plant coffee on it as originally intended (for details see page 75).

245 The small amount of coffee produced is sold in the parchment stage. If it is assumed that each tree will produce half a pound of parchment coffee annually then total production for the village will be approximately 400 lbs. The income from this, if parchment coffee is sold at 1/- per pound, would be only £20.0.0 per year for the whole village. Details of production during the past three years are shown in Table 4.

A [See Category 102, p. 109--Analyst]

	Men	Women	Average
Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
Cash cropping: Assessed time needed to maintain and harvest area planted (1.65 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

482

[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was 433 self-sufficiency. Traditionally, the people of 24 New Guinea were subsistence cultivators plant- [226] ing their food crops in small clearings in the [224] forests and supplementing this food supply by [222] fishing, by hunting the animals which live in the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements [412] were available: stone axes with which trees [392] could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 24 concept of saving and no profit motive, tended 177 to be resistant to change; innovation was unnecessary. But with the coming of white men [412] possessing a superior technology, an important change occurred; steel axes, knives, and spades

P.1-A

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

22[illegible] [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 423 614 the Yega to exist off their strip of coast; rights to fish over these reefs are held by the clans [431] whose ancestors first discovered them. Any person who catches fish over a reef belonging to another clan must give a gift from his catch to the right-holders. Fish are caught by many [177] different methods but the commonest nowadays is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P·8-8]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's
[621] work is done. There is usually at least one
[584] *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the
[171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots
[178] from Ambasi, thirty miles to the north, and from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P11-A] [TEXT CONTINUED ON PAGE 12-A]

Section 2: Economic Assistance

177 Subsistence: Undoubtedly, European contact had a profound influence
433 on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence
731 economy broke down seriously in the post-contact period was immediately
657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This
[241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken
731 to introduce a few innovations which, it was thought, would improve
242 subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of
[412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepa or Inonda. I myself had brought a spade for the garden I established in Sivepa, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed
● [227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption
731 would have destroyed taro seed stock, but this fear proved unfounded.
134 The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed
731 according to a ration scheme based on the census figures. Each village
657 constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

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OJ23 Orokaiva OJ23
Mountain Orokaiva

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture.* The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *taugs*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

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S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966
(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pumba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

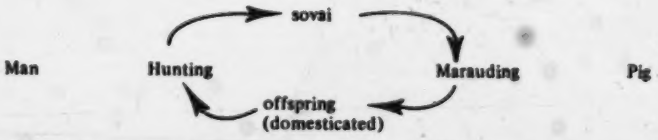
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
[789] calls of its mother. It learns to forage in disused gardens but keeps away from
[775] growing taro. The piglet will not stray too far into the bush but comes home every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of prestations between the sexes, for it is a task women customarily perform for
[462] close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts
231 at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[171] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

● [231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

[769] [614]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed [231] regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of [881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

423 [224] [226] The only local hunting land held by Sivepo people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[657] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

[431] [435] It is doubtful whether improved breeding and husbandry could in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

e. Economic trees

245 [131] [133] Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. [137] Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

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Most households keep a few domestic animals which may enter into the network of exchanges. Piglets and chickens are frequently given to others who then become responsible for them until maturity.

Table 4:3

231 245

Sivepa: economic trees and livestock, 1964*

Item	Average	Range
Breadfruit	26	12-42 trees
Areca	18	6-40 "
Coconut	18	6-29 "
Hausa	13	6-23 "
Pandanus	12	nil-32 "
Sago	9	6-15 "
Ringi	3	1-6 "
Mango	3	nil-4 "
Orange	1	nil-4 "
Pig	2	nil-4 animals
Dog	2	nil-4 "
Cat	1	nil-3 "
Fowl	1	nil-5 "

* Seven households.

245 249

(c) Cash crop gardens

Cash crop holdings in Sivepa have been described by Rimoldi (1966:83-93). Briefly, they comprise four individual holdings of mature coffee and a communal rubber planting of 2.4 acres, established in 1920. At the time of the survey, the rubber was being exploited by three adult members of the sample, together with some other villagers, on a rotational basis.

249 245

Since Rimoldi's survey, two unsuccessful attempts to establish individual rubber plantings have been made[1] in addition to a major attempt to establish a communal cash crop garden of 3.75 acres. This latter attempt, initiated in 1963, was finally abandoned in March 1964. It arose out of the village councillor mis-interpreting a DDA officer's description of the Yega scheme[2] at a meeting of the Higaturu Local Government Council and it proved, in terms of

[1] These were motivated by the opinion that trees in the communal planting were being permanently damaged by unskilful tapping.

[2] See Dakeyne 1966b.

241 592 bananas, corn, cucurbits and pineapple. The change is probably due to the storable qualities of yams and Xanthosoma and the comparatively small amount of attention required during growth by each of the crops showing an increase. The slight increase in corn plantings is due specifically to one man sowing a 'catch crop' in a garden cleared for coffee. The increase in the number of yam vines, on the other hand, is evident for several households. Although two households had no Xanthosoma, the others all exceeded the 1962 average. Of the four households which had more than 20 pineapple plants, two intended to market some of their produce.

245 592 231 (b) Economic trees and livestock

Table 4:10 shows the average holdings of economic trees and livestock per household. Following the change in the village site, all householders planted several coconut palms around their homes

Table 4:10

Inonda: economic trees and livestock, 1964

245 231 592

Item	Average per household* Bearing**	Planted in last year	Range (bearing only)
Breadfruit	3	nil	nil-18 trees
Areca palm	1	6	nil-8 "
Coconut	17	25	6-35 "
Hauna	1	nil	nil-3 "
Pandanus	5	nil	nil-16 "
Sago	4	nil	nil-9 "
Mango	1	nil	nil-2 "
	Total		Range
Pig	2		nil-1 animals
Dog	6***		nil-2 "
Cat	2		nil-1 "
Fowl	7		nil-3 "

* Eight households only. Information was not obtained for one household, a widow originating from Urio village. It is unlikely that she possessed rights to trees in Inonda (cf. Crocombe and Hogbin 1963:47), although her sons would.

** One householder claims extensive holdings of the specified trees on the lands of his home village of Hohorita. These holdings, which he did not exploit during the survey and which are excluded from the above figures, include: coconuts, 30; areca palm 10; sago, about 50; breadfruit 20; pandanus, at least 50. The claimant is the sole survivor of a large family killed when Mt Lamington erupted.

*** Including 3 pups.

245 and around the village paths and square. Subsequent to the construction of the copra-drier, one man planted 30 coconuts as a first step towards a larger holding of commercial coconut trees. In total, 198 trees were planted by the villagers during 1964. Five householders also established nurseries for areca palms during 1964 or planted them in gardens or the forest. Forty-nine areca nuts were planted, but some may not thrive as conditions at Inonda are less suitable for areca than for coconut palms.

231 All the domestic pigs owned in 1962 had been slaughtered prior to the 1964 survey. The local government council has stipulated for some time that domestic pigs should be penned and the Inonda councillor insisted that this be done. While the matter was under discussion a Jego'undi man died and the villagers decided to avoid the trouble of constructing pigpens by slaughtering all the pigs in a funeral feast. In November 1964, two women were given piglets by relatives.

Three households own a few poultry. One man killed or gave away several during the year. Two men and one woman own dogs, all used in hunting.

245 (c) Cash crop gardens

Three of the nine household heads have acquired holdings of mature coffee trees from their fathers (in one case a classificatory father). Two of these were reduced by a realignment of the road and the owners were compensated in cash by the Administration. Another man, who completed the farmer trainees' course at Popondetta agricultural station, began planting cocoa on land belonging to another lineage but was prevented from continuing by the mother of the future main rightholder[1] and in 1964 almost all the young trees were overgrown with weeds. However, the same man has planted 30 coconuts close by, unknown to the rightholder, and he intends to increase this to 100 palms at least. He has also cleared an area of his own land and planted 202 coffee trees, again as the first instalment towards a larger holding. The seedlings were given to him by his step-brother who had inherited 335 coffee trees.

In November 1964, four of the other six male household heads (including the three men with producing trees) decided to clear a large area of secondary forest for individual coffee blocks on the south bank of the Sambogo river. Two men began clearing, but work was suspended until an agricultural officer could approve the site and soil quality. By the time he visited in January 1965, the men had decided to plant instead in the food gardens near the village after these had been fully harvested. A fifth householder had

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[1] Crocombe and Hogbin 1963:75.

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

[1] This figure was determined by using yield data gathered in Sivepe during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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[1] For a detailed account of the activities of these two men, see pp.117-21, 126-7.

[2] See pp.114-17.

A, [See Category 851, pp. 117-119; Category 461, pp. 120-121; Category 812, pp. 126-127--Analyst]
B, [See Category 461, pp. 114-117--Analyst]

437 438 Table 10:16 outlines the geographical pattern of transactions of subsistence produce and labour services. In so far as produce is concerned, 96 per cent of all acquisitions and 89 per cent of disposals[1] are restricted to subsistence villages. Furthermore, almost all of these exchanges are effected within a radius of two miles of Sivepa, with the majority operating within the village itself. The small net outflow of produce away from the villages (of sales and gifts to relatives in paid employment) is more than compensated for by the dominant inflow of cash and storebought goods described above. Within this broad pattern specific variations are identifiable, from produce which is exchanged almost exclusively within Sivepa to that which figures largely in links with distant villages and points outside the village network. Within the former category are prepared dishes such as 'soup', foods eaten primarily as refreshments, such as sugar-cane, and those which dominate the diet during the dry season - sago and breadfruit. The latter category comprises the ecologically based transactions of areca, lime and fish. There is only a very limited demand for all three, however, and the volume and frequency of such exchanges is of little significance within the total pattern.

Taro and pig figure largely in inter-village exchanges, their movement being explicable primarily in cultural terms. One is the main source of carbohydrates, the other of protein and both serve as essential measures of wealth in food resources, therefore dominating ceremonial exchanges. In addition, custom dictates that a person cannot kill and consume his own pig but must effect an exchange with another. Since it is unlikely that two households in the same village wish to kill pigs at the same time, the transactions are largely made between individuals in different villages. [234] [262]

The movements of yams and Xanthosoma are somewhat anomalous: almost all acquisitions of the former originate within Sivepa but many of the disposals are directed to other villages, while with Xanthosoma the pattern is reversed, most acquisitions coming from other villages. Neither crop is particularly abundant and the extent to which each is planted is largely a matter of individual preference, but both are favoured because of their storage qualities. Their variable movement must therefore be viewed as an expression of individual rather than broad cultural or ecological considerations.

437 Disregarding, for the moment, absences involving assistance to settlers at Sangara, the exchange of labour services is restricted, effectively, to the inter-village level and, almost entirely, to Sivepa itself. In the case of subsistence activities it is not

[1] If transactions with researchers are disregarded this figure becomes 86 per cent.

[TEXT CONTINUED ON PAGE 219]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Postscript

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Since this report was prepared, we have received news of some interesting developments bearing on the above conclusions.

In 1967 cattle-rearing projects were established under Administration sponsorship and guidance in several lowland Orokaiva villages, including Inonda. The Inonda people have sown and fenced several acres of pasture for ten cows, all of which are calving. The need for cash to buy fencing materials has stimulated several subsidiary projects. Peanuts, which are sold to the Department of Education, are grown on three acres of grassland ploughed by a hired tractor. Three families have piggeries and one earned $108 from one sale of young pigs during 1968. Another family is starting a chicken farm. Money is also raised from sales of copra, fish and food garden produce. In addition, six of the villagers and two kin from outside have subdivided an area of forest land into 20-acre blocks which are being prepared for planting cocoa and coconut trees. Our informant in Inonda acknowledges the great help received from the Department of Agriculture in encouraging and assisting in these projects.

It seems that the cattle projects were established in villages containing people known to the Administration for their entrepreneurial abilities. It is not known whether similar developments are taking place among the Mt Lamington Orokaiva.

placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 grass knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £86.5.0.

pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

The most important trees in the Inonda subsistence economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work, they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

In addition to the rights of those born in Inonda, some wives claim rights to use economic trees in their home villages. They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

657 Kumusi Division in which both Sivepa and Inonda are situated. It
364 would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922:
[467] 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

Beaver, in the report already cited, sets out his concept
364 of village improvement as follows: "In the old days, doubtless,
361 the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

342 The Pre-contact house was invariably built with a pig
231 enclosure so that man and pig spent the night together. The
657 Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under
231 the houses, or elsewhere, as they wished. Since the Local
657 Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Sova man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepa was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

659 Belshaw makes the following remarks about village development:
361 "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepa land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepa, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepa nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[213] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepa people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepa people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepe were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organised. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[293] were deprived of many of their choicest feathers at a time when
[411] headdresses had to be refurbished for dancing or spears decorated.
[574] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
Sivepe killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

There is a great shortage of both pigs and fowls for these
438 ceremonial occasions. Pigs are bought for high prices ($20 to
439 $30)--from neighboring villages and even, as Crocombe and Hogbin
[435] say, from European planters. Fowls tend to be made available on
big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield
241 economic products, those plants which are native to the district
311 and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepe sample and as shown by Crocombe and
Hogbin for Inonda (Table 7). The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepe. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepe acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xanthosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
628 abandoned now. Although these two da were less than a hundrad yeards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohovita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
361 further than about 1948 when the village Pa[illegible] was built, combining an older Sive and a now defunct village Pusahembo. The census list
[162] current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahembo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Carombi were considering moving in and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they
[769] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees were much better looked after, and there were far more of them. Every
[245] man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

731 [23] problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

[557] [749] 5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a [749] complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. [748] As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

731 361 On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

731 799 The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a [895] Mission hospital at Oro Bay. "Native" Papuan Mission [892] teachers started elementary vernacular schooling in the camps.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
197 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, [799] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that [757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with [743] minor ailments. Serious cases were often referred to Saiho hospital [758] and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

[582] There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, [232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. [494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his carteage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

197 The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous [744] campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] [262] [764] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] [231] [235] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 [302] [789] [881] [761] [764] Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in the sense that the fluid would drive away dangerous spirits (1930: 175). With the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

423 [224] [22C] The only local hunting land held by Sivepe people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[14C] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[C57]

[1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepe were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organised. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[293] were deprived of many of their choicest feathers at a time when
[411] headdresses had to be refurbished for dancing or spears decorated.
[579] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
Sivepe killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

438 There is a great shortage of both pigs and fowls for these
439 ceremonial occasions. Pigs are bought for high prices ($20 to
$30)--from neighboring villages and even, as Crocombe and Hogbin
[435] say, from European planters. Fowls tend to be made available on
big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

241 We may distinguish, among local plant resources which yield
311 economic products, those plants which are native to the district
and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepe sample and as shown by Crocombe and
Hogbin for Inonda (Table 7).[A] The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepa. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepe acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*pauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some form of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

434 [583] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B) the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [731] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepe as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A, [See Category 454, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have
[555] taken over some of the functions of traditional valuables and in
some situations one is exchanged for the other. In the past it
[301] was recognised that skill and initiative in hunting and trading
[237] were necessary to acquire di hambo but today, with safer communi-
cations and better hunting equipment, they are more easily obtained.
[321] People are willing to buy some of the more valuable items or some
[439] cheaper items of European manufacture which can be adapted to
serve as a novel decoration.

Although they constituted the greater part of the goods changing
[428] hands on traditional ceremonial occasions, di hambo are evidently
not now circulating rapidly. A little less than half of these
valuables held by members of the sample had been inherited and
nearly a quarter had been acquired by the owner by hunting or
collecting.

A complete adjustment between the roles of money and of non-
monetary valuables has not yet been made. They circulate in the
same exchanges and both are considered essential; it may now be
[583] accepted practice that each should be contributed by or distributed
amongst different categories of kin on these occasions.[1] But the
opinion was widely expressed that as people are increasingly
demanding cash as a large part of bride price payments, the
intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely inter-
changeable, we collected details of the prices paid for any items
of di hambo which had been purchased by the sample,[2] and by using
these in conjunction with the unitary scale of value on which
informants could readily place all items, we assessed the possible
cash equivalent of non-monetary valuables acquired by the 12 house-
holds from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [293] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [574] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these
438 ceremonial occasions. Pigs are bought for high prices ($20 to
439 $30)--from neighboring villages and even, as Crocombe and Hogbin say, from European planters. Fowls tend to be made available on [435] big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield
241 economic products, those plants which are native to the district
311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 126, p. 212--Analyst]

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on [177] headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/3

FOOD PLANTS PER HOUSEHOLD: INONDA AND SIVEPE COMPARED

(*Sources*: Crocombe and Hogbin, 1963: 8; Rimoldi, 1966: 17)

Crop	*Inonda*		*Sivepe*	
	Average	*Range*	*Average*	*Range*
Taro (*colocasia* sp.)	1.3 acs.	2.6–0.4 acs.	0.97 acs.	0.39–2.30 acs.
Sweet Potato	0.2 acs.	0.4–0 acs.	0.07 acs.	0–0.20 acs.
Corn	72 plants	140–0 plants	223 plants	0–442 plants
Bananas	81 trees	145–12 trees	71 trees	35–126 trees
Pitpit (*ina*)	56 clumps	181–4 clumps	88 clumps	0–400 clumps
Sugar	71 clumps	167–34 clumps	34 stools	11–54 stools
Yams	24 vines	61–0 vines	65 vines	0–136 vines
Manioc	10 plants	27–4 plants	a few	
Taro (*xantosoma* sp.)	5 plants	25–0 plants	28 plants	0–91 plants
Native Cabbage	–	–	22 plants	0–100 plants
Pawpaw	–	–	17 trees	5–32 trees
Beans	a few		17 plants	0–110 plants
Cucurbits	2 vines	10–0 vines	13 vines	9–28 vines
Shallots	a few		a few	
Ginger	–	–	a few	
Tobacco	–	–	18 plants	0–59 plants
Pineapples	1 plant	7–0 plants	no data	
Tomatoes	a few	–	no data	

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

241 [132] wet season throughout the Northern Territory. On the Mount Lamington foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 476 While most subsidiary crops are grown in the taro garden, it is a fixed rule that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 249 177 473 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-nut and a few other trees in gardens, villages and in the bush, their arboriculture used to be rudimentary in comparison to their precise and detailed attention to tubers, especially taro. The Australian authorities had hardly established themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 473 'Communal' village plantations for coffee were established in the Northern District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 7

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The elements of mediation are entirely indispensable in this relationship. Unless there is development activity, the government will feel that the relationship has broken down. Unless the councillors intervene, the government's information cannot be communicated.

Both the villagers and the government find this exchange cycle highly precarious. It is precarious for the villagers because social exchange, for the Orokaiva, implies a state of competition between the partners. It is unprofitable to engage in social exchange with a partner unless one can hope to equal him (and even better him) in wealth and power. This desire to equal (and defeat) the Europeans competitively is an ambition of which informants spoke to me occasionally when I came to know them well. It was quite clear to the Orokaiva that they could never achieve this objective by growing coffee on small village plots. Hence, they could not regard the activity advocated by the government as being worth engaging in for its own sake. The question facing them was: will this activity serve our ultimate end of achieving equivalence or victory? The term 'development activity', as used in model 7 implies that it is thought to serve this ultimate end.

657 177

I demonstrated in the previous chapter that all elements of mediation are essentially magical. The Orokaiva similarly regard development activity as magical. In response to this notion, government officers sometimes evolve rules of behaviour that look remarkably like magical formulae. One officer in the Northern District invented a regular weekly calendar which he thought the Orokaiva should follow. Certain days of the week should be set aside for coffee growing, others for growing and marketing extra garden crops, others for cleaning and improving the village, and so on. I heard the officer proclaim this calendar; later, I heard a councillor proclaim it in Sivepe village. It was listened to with respectful attention, but afterwards ridiculed by the village men. The formula was rejected because it was thought to be useless. There was, of course, a plethora of such formulae circulating as many officers thought up their own, and most officers were rapidly transferred from one job to another. It was natural, therefore, for the Orokaiva to become selective in the formulae they adopted. Also, experience showed them that the formulae did not always work.

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The difference between this modern magic and the traditional varieties lies in the greater uncertainty of the prescription. The Orokaiva habitually use an experimental approach to magic: if one medicine does not work, then try another. But all traditional medicine has at least an impeccable source: it was given by the ancestors. The magic of 'development' (money, Western technology, Western power) was, in Orokaiva belief, ultimately derived from Jesus

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

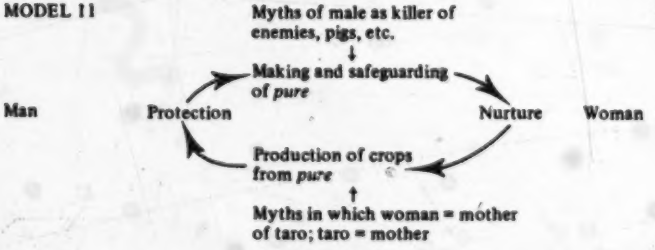
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
woman) is a cleared patch of ground on which nothing grows; nor is the woman
[578] in a better position as she cannot (independently) bring any crop to maturity as
she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva
land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

795 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in
887 transmigration of souls. But this transmigration occurs through the mediation of
241 the piece of land where the spirit of the dead person has taken up special
residence. This is usually the garden he or she was cultivating at the time of
death. It is a fact of Orokaiva life that old people do not stop gardening as long
as they have any strength left in their bodies. Waddell's study of time allocation
in Sivepe showed that after the age of fifty-five, time spent on productive
subsistence activity, especially in the garden, declined only slightly, whereas
non-productive activity (e.g. social obligations, dealings with external agencies)
declined very sharply (1968: 104). Old people devote their reduced energies
almost exclusively to their gardens, grow progressively closer to their gardens
and away from the social network, until finally, after death, their spirit becomes
still more closely attached to the land. Their souls re-enter association with the
village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given
241 away by him to persons outside the lineage. No *bere* are taken from these crops.
After a suitable period of fallow, the garden is replanted, but even then the land
is not thought to be free of the deceased's spirit. Very often the son or brother
of the deceased plants the garden and uses the produce to give a feast. It is
thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is
774 believed to reside. They seek the spirit by placing leaves of a fragrant plant called
mo in a creek which runs through the land. When the spirit is thought to have
entered the leaves, the parents address it thus: 'You are dead now. We shall look
after the land and we shall look after the baby so it will become big and strong.
Then this child will look after the land.' The wife, in preparation for this rite,
has brought the baby to the garden in a string bag, and has also brought a stick.
When she arrives in the garden, she places the stick in the ground and hangs the
baby in its string bag from the stick. After the ritual by the water, she drops
some of the leaves by the stick, then takes the baby, the bag and the rest of the
leaves and returns home with her husband. The custom is for the husband to say
at night: 'I hear the baby crying.' He is expected to go back to the garden and
talk to the baby that is believed to be in the stick, telling it that the parents will
now look after it and there is no need to cry. He should then take the stick, with
the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

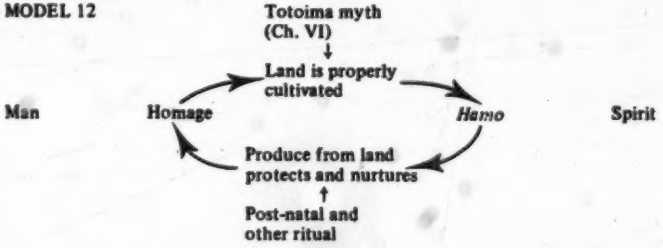
Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

was thought to inhere in his old garden plot and in the products growing there, or more specifically perhaps in the water flowing through the garden, for it is in the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

The ritual formulae spoken by the parents in the garden and quoted above both clearly have the form of a bargain, by which the spirit of the deceased is asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those spirits. The senior member of an extended family, the 'father of the ground' (*enda mama*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4.10.1898 (quoted in Healy 1962 : 84).

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quantities in some areas.(1)

After the turn of the century less emphasis was given to the policy of expanding indigenous plantings of cash crops and instead Papuans were persuaded to work as labour on European plantations. In 1906 the Lieutenant-Governor stated that not only was staff inadequate to enforce the 1894 regulation, but that where it was enforced the resultant income attracted traders whom he felt to be a bad influence on the Papuan people. Employment on European plantations, on the other hand, was considered to be beneficial.(2) This policy remained until after the first world war, though some Resident Magistrates also applied the regulations in order to extend native plantings.

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(1) For a more detailed study of the application of these regulations see Miles 1956 : 319-23.

(2) Territory of Papua Annual Report (hereafter abbreviated to P.A.R.) 1905-6 : 9.

Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District(1) there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

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(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

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(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P.A.R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

241 657 people probably preferred it anyway. He gives no evidence for the latter assertion. It seems equally possible that officials of the day considered the Papuan people to be "naturally" adapted to communal patterns of work.

The first action to implement the ordinance in the Northern District was taken in 1921 and 1922 when inspections were made by officials "with a view to plantations being established of such economic plants as will suit the soil and promise a profitable return" (P. A. R. 1921-2 : 23). Similar action was taken in parts of the Central, Milne Bay and Gulf Districts at the same time.

Acquisition of land

657 423 In 1921 the Crown began to purchase lands under the Lands Ordinance 1911-22 and to declare them under the Native Plantations Ordinance, as Native Reserves set aside for the purpose of Native Plantations. Between 1921 and 1925, 38 such plantations were declared in Papua (33 of them in 1922-3). Each plantation was to be farmed by a group of neighbouring villages. By 1932, however, 18 of the Orders in Council by which the plantations had been established had been cancelled (there were no cancellations thereafter). Of the remaining 20, 14 were located in the Northern District and the other 6 in other parts of Papua. With the exception of small extensions to several plantations, no further land was bought by the Crown for this purpose after 1925. The plantations established on Crown land in the Northern District are listed in Appendix A.[A]

In 1925 the policy changed to the extent that plantations were only established under the ordinance if people could be persuaded to set aside native land for the purpose. The Crown did not buy the land, and residual ownership was not challenged, but for such time as the land was proclaimed under the ordinance it could only be used as a native plantation for a particular group of villages. We have been unable to ascertain the reasons for this change of policy. Between 1923 and 1936, 75 plantations were proclaimed in Papua under this section of the ordinance. By 1934, 36 of the Orders in Council setting up the plantations had been cancelled. Of the remaining 39, 12 were located in the Northern District. They are detailed in Appendix B.[B] No further communal plantations were ever established.

A. [See Category 423, pp. 37-40--Analyst B. [See Category 423, pp. 41-42--Analyst]

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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(1) The vendors were illiterate and signed the documents by the putting of marks.

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture.

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with.

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres.

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the or-
[492] dinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the
[493] port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol".(1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

●241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, pro-
[65] ducers were required to deliver all produce to the government depots at Higaturu, Popondetta and Buna.(2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

651 proceeds to be retained by the government was paid into the
[241] Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

657 Hulling, marketing and administrative costs incurred
241 in running the plantations scheme were paid from the Native Education Fund. The same fund provided a coffee pulping
[871] machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When
[651] the war broke out there was an unspent balance of £26,199 in the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

465 The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The
[211] official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each
[212] man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

[435] Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places where a smaller labour force was working an equally large [466] area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

Post-war community plantations (1945 - 62)

177 657 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth con- [466] siderably more than pre-war rates. However the military administration (A. N. G. A. U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions 465 were relaxed and few people were convicted. Income was [434] higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce.

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low, (1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success.

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P.A.R. 1949-50 : 17 show that 40,160 man-hours were worked on the 56 acres of coffee then in production and that £767.12.3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked.

245 ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not [578] paid. There was by this time a continuing dispute about the distribution of income from the coffee.

578 423 614 The Hoiwo'undi sub-clan, on whose land the Ongoho coffee was planted, claimed a larger share of the proceeds because the land was "theirs". As no agreement was reached, the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is unjust that Hoiwo'undi should have denied them access. No- [241] body, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

245 For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee *there spasmodically. The income was shared within Hoiwo'undi.* No weeding, pruning or other maintenance work was carried 73 out at this period. At the time of the Mt. Lamington eruption 241 in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations. (1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952.

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account.

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage.

Community rice and cocoa projects

In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally linked to the mission.(1) The main activity of the co-operatives was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

In most instances the village worked as the unit of production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

foodstuffs and for ceremonial exchanges and some urged the people to deposit their compensation money in a central fund for use by the community as a whole. Many leaders took this advice and collected large sums for the co-operatives. Some of the money was kept in the villages, but some was contributed to central funds which were held on a tribal or sub-tribal basis.

Few of the leaders had the technical knowledge to know how to handle the funds or to apply them to productive projects, and much of the money was dissipated in unproductive activities. About 1950 government Co-operative Officers were sent to assist the establishment of formal co-operatives and to save the many existing informal co-operatives from disintegration with consequent public loss of faith. The officers were able to make headway in some instances, but in other cases the funds were already exhausted and the people disillusioned. In cases where the funds remained, the government insisted on their being handed back to the original contributors before any official co-operative was formed (Belshaw, 1951 : 250).

Efforts to increase indigenous participation in commercial agriculture in the Northern District in the post-war decade had met with little success and in 1954 the Department of Native Affairs resumed pre-war patterns of promoting commercial agriculture. Additional police were stationed in the area, particularly on the inland side of the Kumusi River but to a lesser extent among the Orokaiva also. One policeman was based at each of a number of villages and each village was required to clear a community garden for cocoa planting.

The Department of Agriculture staff did not favour any extension of community planting and put its emphasis on individual cash crop gardens but, in the early stages at least, this action was strongly opposed by both the mission and the patrol staff. Missionaries who were involved feared that individual cash cropping would lead to abandonment of the villages as each individual would probably want to live near his own cash crop garden. They felt that this would result in a reduction of religious and educational activity and may lead to a resurgence of non-Christian practices. Patrol staff too opposed individual plantings at that time, in some instances it seems because of an erroneous notion that traditional agriculture was

a communal task.(1)

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Most of the communal cocoa gardens in this area were later abandoned. Some (such as Hojavasusu) were divided into individual lots and continue to produce. A few others are still functioning to a limited degree, but none are now operated on a communal basis.

(1) By about 1956 the new patrol staff had come to favour individual plantings and this policy has been followed by both departments since then.

Conclusions

423 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no 241 evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which [614] includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) A This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and [461] strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

241 We do not know of any instance of communal planting 614 of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the [592] level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A. [See Category 423, pp. 10, 25--Analyst]

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1)

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it.

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2)

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group.

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951.

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

241 65 [466] [625 [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

agricultural techniques of cash cropping and to regular patterns of work. It is true that most of the individual plantings of coffee since 1956 were made with seeds taken from the old community blocks where the techniques of coffee husbandry had been learned, but it was there also that the people had acquired their distaste for cash cropping.

The fact that all attempts at developing communal cash cropping among the Orokaiva have failed does not necessarily mean that communal planting is never practicable. What it does indicate however, is that to be successful, communal farming like any other farming system, must be coupled with appropriate organizational structures, sanctions and incentives as well as with extension, processing and marketing facilities.(1)

(1) Individual small-holdings do not of themselves lead to higher output. Since 1956, the nine Asigi villages which participated in the Ongoho community block have been encouraged to plant individual cash crop gardens. To date only 33 gardens have been planted (all of coffee). They cover only about 9 acres of land and contain 4,209 trees. Most are little better tended than the community block and fifteen are completely abandoned. Low price, distance to the market and lack of extension services seem to be responsible.

Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation ....

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed ....

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ...

1. Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

2. Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

3. No proportion was ever gazetted but it is understood that one half was invariably taken.

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ...

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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434 Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

Appendix F

The Orokaiva villager's experience of cash cropping

241 177 [114]

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

245 [258]

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

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Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

[465] [133]

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only ....

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee.

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away ....

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organization on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [121] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [657] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw, 1951.. [2] See Crocombe. 1964:31.

433 The C.S.I.R.O. (1954:12) reported that a wide range of annual and perennial crops which will grow at altitudes up to approximately 1,500 ft and do not require a marked dry season could be grown successfully. The report commented that the whole land system is a very good agricultural area and that this is reflected in the relatively dense population,

> a factor which under the present system of native agriculture will influence the extension of European agriculture. The potentialities of the area, however, far exceed the present land use, which means there is scope in this area for the successful application of extension work directed to the improvement of native agriculture and horticulture.

137 The natural vegetation of the area is a rainforest climax (Pometia pinnata-chisocheton sp. Alliance), of which very little remains. A belt of primary and secondary rainforest separates the settlements on the mountain slopes from their northern neighbours but the area south of this belt is mostly covered with more recent secondary growth in various stages of regeneration after cultivation. Isolated patches of 'kunai' grass occur (mainly Saccharum spontaneium, with some Ropbelia, Imperata spp.)[1] but their area is insignificant by comparison with the grasslands found on the Orokaiva plains.

b. The cultivation cycle

132 Over a period of 8 years the average monthly rainfall has ranged from 9.6, 7.9 and 8.2 inches in June, July and August (when rain falls about 15 days per month) to 20.9, 16.8 and 17 inches in December, January and February (with 22 wet days per month). The coefficient of seasonal variation used by Brookfield and Brown (1963:20) indicates only slight seasonal variability in the area.[2] An occasional brief drought is possible at any time, but with good soil, and no marked dry season, conditions for the growth of subsistence crops are usually favourable throughout the year and new gardens can be made as needed.[3]

[241]

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[1] District Agricultural Officer: personal communication.

[2] The coefficient of seasonal variation was 0.30. This measure is obtained by calculating from rainfall figures the standard deviation of monthly means from the mean of the monthly means and then dividing the standard deviation by the mean of the monthly means.

[3] We found no effects in this area of the rainshadow zone referred to by Keesing, 1951:6.

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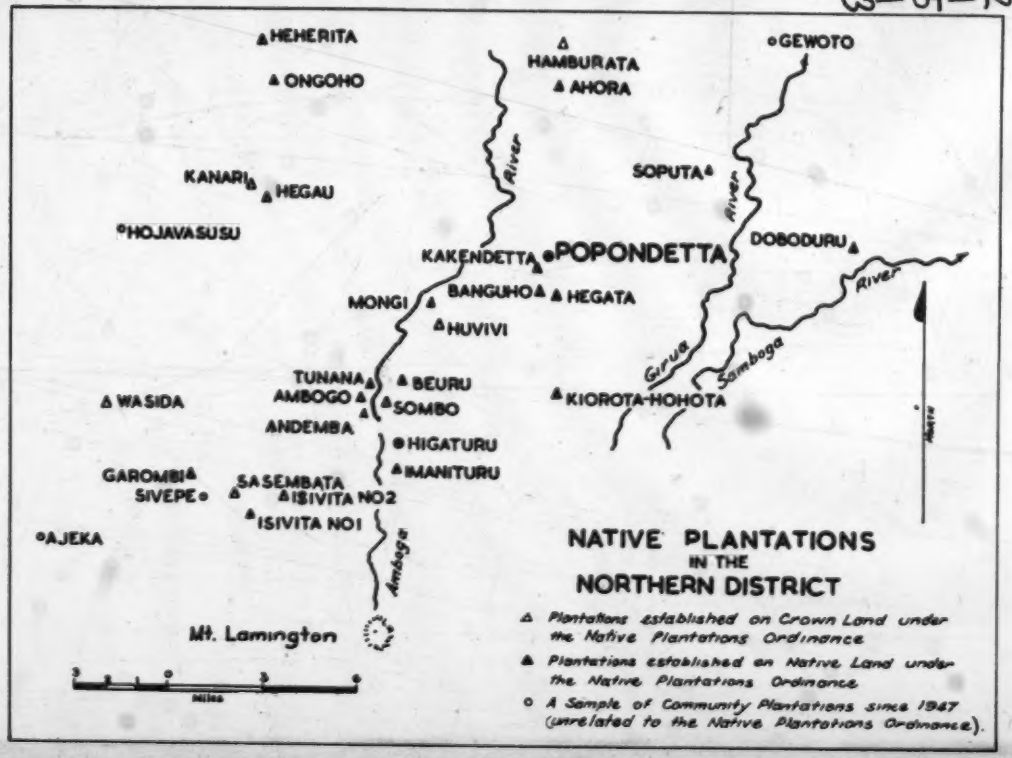

[end map]

6: Crocombe E-4,5 (1963) 1[illegible]4 QQ23 Orokaiva QQ23

241 There is, however, a slight seasonal variation in the rate of agricultural activity. There is no correlation between the various phases of gardening activity and the seasonal variations in weather conditions, such as is sometimes found among shifting cultivators,[1] but the anticipated climate may determine the extent of new cultivation carried out at a particular time. More new gardens are made about the start of the season of heavier rains than at any other specific time of the year (cf. Williams 1930:144).

Decisions as to the type of garden work to be undertaken in the immediate future take account of suitability of current weather conditions. For instance, most villagers took the opportunity offered by a long unseasonal dry spell during the last weeks of our survey, at the time which would normally have been the height of the wet season, to make extensive clearings for new gardens to ensure a more continuous supply of food.

The natural high fertility of the ash-agglomerate slopes of the volcano is maintained under the system of short-fallow shifting agriculture. Gardens are small, scattered and irregular in shape. Usually each area is worked with varying intensity for only 18 months. General seasonal conditions do not closely define this period. There is minimal rotation of crops; only single plantings of taro are made and this crop covers over 90 per cent of areas under cultivation.

[433] Crops mature quickly but weed infestation and leaching result in a more rapid decline in yields under cropping than is found in highland areas. After one crop, pests and diseases become established and reduce the yields of any further immediate plantings. It is therefore essential to rely more on extending new clearings than on the intensive use of a few elaborately prepared garden areas.

The decision to cultivate a new area and the choice of a site rests with each household. Once a garden site is chosen, the secondary growth is cleared by the members of the household, using axes and bushknives. The undergrowth is cut first; trees are then felled at shoulder level and the stumps are left to provide support for yams and sugar. The branches are removed from the felled trees and the trunks are used later for fences, garden boundary marks, building materials or firewood. Undergrowth is left to dry for about a week and then burnt. Once this is done, edible pitpit (Saccharum edule) and bananas are planted at random over the cleared area. Sugar is planted near the tree stumps so that it may be tied up to prevent lodging. It is thus less susceptibe to

[1] Conklin 1954; Lawrence 1955:5; Vicary 1960:182.

241 rodent attack. A hardwood planting stick (ti) is used to loosen the soil, though occasionally shovels are used to make mounds for sweet potato runners and tubers, or for yams. Sugar cane and pitpit are planted either in clumps of suckers or in lengths or 3 nodes but bananas are propagated only from suckers.

Maize, cucurbits and tobacco are planted before or with the main crop of taro. They usually grow best near stumps or logs, perhaps because they benefit from extra potash and humus.[1] Tobacco seeds are thrown near stumps and when seedlings are about 6 inches high they are transplanted throughout the garden. Numerous varieties of taro (Colocasia spp.), distinguished by their colour and stem and leaf shape, are propagated by suckers. The suckers are placed in holes 6-8 inches deep and spaced about 2 feet apart. A small amount of Xanthosoma taro is planted, usually on sloping ground, and not necessarily in the main gardens. Yams are planted in separate areas if planting material is plentiful. Otherwise they are planted at random through the garden. Two common varieties are recognized.

Sweet potato is grown only in small quantities as a supplementary diet to the taro. If it is planted among the taro, the planting is delayed until the taro is suckering. Small plots are often made in a taro garden after most of the taro has been extracted. Minor crops found in the gardens are cabbage, manioc, beans, tomatoes, ginger, shallots, pineapple and pawpaws. (Table 1.)

Gardens are usually weeded 3 times. Weed infestation becomes too heavy to handle at this stage, but crops are mature enough to compete successfully and shade from the weeds is claimed to benefit the taro.

417 [136] Fencing is not as extensive or elaborate as in many Orokaiva areas, due to a scarcity of wild pigs. Gardens are usually made on sites at a distance from the village which is considered too far for domestic pigs to wander. Despite this precaution, 2 men had their gardens spoiled by village pigs just before our visit.

Fences are raised to a height of about 4 feet by piling logs horizontally on a broad base and securing them with perpendicular stakes. In most cases the fence is erected only on the garden border which is considered most accessible to pigs. This is often done after the area has been planted. The barrier may be extended later if another side is found to need protection.

[241] [476] A virtual absence of wild pigs is partly responsible for the tendency for the gardens to be scattered. In other parts of

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1 Cf. Vicary 1960:188.

241 [47G 417] Orokaiva territory where more effort is devoted to fence construction it is more common for the members of a village or a local patrilineal group to cultivate contiguous plots and to co-operate in the construction of one fence to protect several gardens. This reduces the total labour required for the task.

Table 1

Food plants per household*

Crop	Average	Range
Taro (Col)	0.97 acres	0.39 - 2.30 acres
Sweet potato	0.07 acres	0 - 0.20 acres
Corn	223 plants	0 - 442 plants
Bananas	71 trees	35 - 126 trees
Pitpit	88 clumps	0 - 400 clumps
Sugar	34 stools	11 - 54 stools
Yams	65 vines	0 - 136 vines
Taro (Xanthosoma)	28 plants	0 - 91 plants
Native cabbage	22 plants	0 - 100 plants
Pawpaw	17 trees	5 - 32 trees
Beans	17 plants	0 - 110 plants
Cucurbits	13 vines	9 - 28 vines
Shallots)		
Manioc)	a few plants	
Ginger)		
Tobacco	18 plants	0 - 59 plants

*12 households.

On the other hand, a total of 1 acre of taro planted in scattered plots involves more clearing than the same area planted in a continuous block of gardens. Several gardens in 1 block would have a smaller total perimeter adjoining the bush where there is usually a margin of cleared land which is never planted. The dispersal of garden sites facilitates natural reseeding of fallow land from the surrounding bush.[1]

It is difficult to arrive at an average figure for the length of the cultivation - bush fallow cycle. One particular difficulty is the fact that the clearing of a plot is often done progressively. As one section of the garden plot is cleared by a household, it is planted and then adjoining sections are cleared and planted. In some but not all cases the successive areas may then be allocated to different members in the household, such as a woman - a married sister or a brother's wife - whose husband is absent. Since few vegetables can be stored for long, this method of clearing the

[1] Conklin 1957:145.

241 area over many months ensures a continuous supply of maturing food over a long period, but it means that one section may have been abandoned some time before the plot as a whole is finished. Therefore, there are limitations to estimates of the rotation period, made by determining the number of years which have elapsed since the previous clearing of the plot.

An average of 6 years had lapsed since the land under cultivation was said to have been last used. One area had not been cultivated for 15 years but in several cases the land had been fallow for only 4 years.[1] Informants stated that this rotation period was long enough to maintain yields. By that time secondary growth (enda) of a reasonable height[2] has become established on the overgrown garden (manene).

Many areas of enda had been unused for longer than this average fallow period. These included some parcels of land held by the patrilineal group which has the least land per capita among our sample (see p.58), but the blocks which have been fallow for at least 20 years belong to the groups with large landholdings. Some of these areas were considered less suitable either because the soil is of a slightly poorer type or because they are not a convenient distance from the village.

The short cultivation - bush fallow rotation does not occur repetitively even on a fixed number of selected parcels held by the members of the sample. Since the average period of bush fallow was deduced from the dates of the previous use of the total area at present under cultivation, it must be noted that 49 per cent of this was on land belonging to a group other than the planter's (see p.70 ff.). The shortest fallow period was no more common among the gardens of men with small landholdings than among [423] gardens of those with large areas. Some gardeners from each group were exercising usufructuary rights as cognatic kinsmen of landholders of other patrilineal groups (see Table 5).[3] Those who were cultivating a total of 6 acres of land of members of other clans generally claimed that permission to use this land was granted on a reciprocal basis.

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[1] Williams' informants at Wasida said that land was replanted after 4 years' fallow (Williams W .27).

[2] The Orokaiva generally maintain that it is easier to clear areas where fairly large trees are standing than areas with no prominent timber. See also Newton (1960:113) who points out that within 5 years of the start of a tropical rainforest fallow 'the total quantity of nutrients immobilised is more than half the total immobilised in an eighteen-year-old forest fallow'.

A. [See Category 423, p. 70--Analyst]

241 About 2 acres of land held by the sample were being used for food gardens by members of other clans. If we assume that the parties periodically exercising reciprocal usufructuary rights to each others' land eventually use comparable areas, the number of acres of a patrilineal group's land cultivated over several years will be roughly equivalent to the total area which it has itself cultivated.

126 Chain and compass surveys were made of all current gardens cultivated by the sample. These gardens ranged from plots overgrown with weeds, but still yielding taro or sweet potato, to newly cleared areas. Measurements of the areas which were cleared during the last 2 weeks of our survey were made hurriedly and are less accurate than the other figures. The time spent clearing new areas in each of these 2 weeks was more than the total time spent on gardening recorded in any previous week and the figures below at least give a fair indication of the significant size of new clearings in relation to other categories of the area under cultivation shown in Table 2. The lack of rain at the time made it impossible to plant any of the new areas immediately.

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Table 2

Current garden areas
(acres)

	Area per head of population	Area per able-bodied person (over 16)	Area per household	Total
Garden currently producing	0.14	0.27	0.57	6.86
Garden planted not yet producing	0.12	0.23	0.48	5.81
Garden cleared not yet planted	0.10	0.20	0.43	5.17
Total area under cultivation	0.36	0.70	1.48	17.84

The 0.36 acres of current garden per head of population compares with the figure of 0.31 at Inonda (Crocombe and Hogbin 1963:10).

The proportion of currently-producing gardens seems to have been unusually small at the time of our survey. Sixty-one per cent of the garden area had been brought under cultivation in the past 5 months (2.2 acres per month), whereas the rest was all that was still producing after cultivation during the year before that. Some households had planted, harvested and abandoned some plots in the meantime. Most of the gardens which were being harvested

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311 during our stay had been planted within the previous 6 months and those which had been planted longer were generally well over a year old and were entering the closing phases of production.

One householder whose older garden had been destroyed by pigs had first cleared his present gardens only 5 months before our survey. Some of the older current gardens measured were almost exhausted and would only just last until the taro in the householders' new gardens matured. The supply of food from the old gardens in these cases was supplemented mainly by the newly-sown corn which matures in about 3 months, by tree crops, yams and Xanthosoma taro from small scattered stands.

In deciding on the time to establish new gardens for their future subsistence needs the villagers seem to have taken into consideration the prevailing seasonal conditions and the prospects of heavier rains a few months before our survey so that we noted only a few gardens that were made in the year before our arrival and already producing.

By determining the area which has been cultivated by each household since it made the first clearings for its current gardens a monthly rate at which it established gardens was calculated. The total area gardened monthly by the 12 households together was found to be 1.53 acres. The sample therefore cultivates 18.36 acres per year or 0.36 acres per capita.[1]

For the above reasons we believe that we would have obtained more reliable figures had we been able to extend the length of the survey to cover fluctuations in the rate of cultivation and in the ratio of new to old gardens. The figure of 0.36 acres as the yearly per capita requirement for garden land may be unusually high: however, the Survey of Indigenous Agriculture at Sivepe estimated that between April 1961 and March 1962, 53.76 acres had been brought under cultivation by the 159 people in the village, or 0.34 acres per capita. The mission from the International Bank gives the average per capita requirement as about 0.3 acres under this class of land use in Papua and New Guinea.[2]

If an average 6 year fallow cycle is followed, the present population of the sample cultivating land at the rate of 18.36 acres per year require 110 acres to maintain their present

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[1] The 4 households who had no current gardens older than 10 months had made these new gardens at the annual per capita rate of 0.51 acres compared with 0.29 for the rest of the sample who were still using earlier gardens.

[2] Mission from the International Bank 1964:74.

241 311 standards of subsistence agriculture.[1] Their own property totals 138 acres.

c. Hunting and fishing

224 [136] These pursuits add variety ot the diet but provide comparatively little food. Most of the game surviving in the area is small and there are no large fish to be found in the mountain streams. Small marsupials such as the cuscus, bandicoot and, more rarely, the land wallaby, together with flying foxes and birds are the main sources of animal protein. Nets and hunting spears are generally used to catch these animals after they have been flushed out by the hunter's dog. Traps are seldom set for game but we were told this formerly was a more common technique. Snares for the smaller types of animal are often made by boys and one or two of the men. Two members of the sample owned licensed shotguns and these were very effectively and economically used. One of these men would place his services at the disposal of anyone who supplied cartridges for the gun; the other allowed a limited circle of people to use his gun. The guns were frequently used for hunting at night in the dry weather during our survey.

226 Neither of the two forms of concerted hunting common among other Orokaiva (the drive towards a pig net and grassburning, Williams 1930:45) is practised to any extent as there are few wild pigs and little grassland in the area.

Spears and fine-mesh nets are used in local streams to catch eels and the 7 types of small fish found. This task is shared by men and women usually when the water is low during a period of dry weather. They may search for fish with a net along the Sohu River wherever it passes through land held by a member of the village, but the small rock dams built by a man to form pools suitable for the use of the spear are made only where the river passes through his own land.

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[1] This requirement is 2.2 acres per capita. Barrau (1958:75) says that 2.5 to 5 acres per capita are sufficient for this type of agriculture in Melanesia, assuming the average area of garden is 0.25 acres and that the duration of bush fallow ranges from 10 to 20 years. In March 1951, 40 square miles of unrestricted land were considered suitable for resettling 4,500 of the survivors of the recent eruption (Plant 1951:4; Belshaw 1951:9). It was felt that these 5 acres per capita were enough only to meet the immediate requirements of traditional subsistence gardening for the next few years. (It was well-wooded and appeared 'most productive' and easily accessible by road.) Considerable population increases were anticipated.

423 The only local hunting land held by Sivepe people is that held
[224] by individuals as gardening land. A villager may hunt or fish on
[226] the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 Apart from the game available to the hunter, there are only
[231] 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside
[241] the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] Of the 24 pigs or piglets claimed by 7 of the 12 householders,
[426] 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[657] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

423 clansmen or other kin of members of the group. But this takes the
[614] form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

●241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among
125 members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to attack government parties,[3] peace was secure within 4 years. [721] Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes under the novel conditions brought about by the arrival of the [166] Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

613 Overall the land of Berekipa lineage is more fragmented, though less scattered than the holdings of the Bebehupa, which are larger.

From detailed accounts of completed land transfers between the Berekipa and Arehu, whose present holdings are mostly interspersed[1] near the sites of Simbehata and Pusahambo, and from other historical data we infer that this land previously formed far more continuous tracts belonging to descent groups such as these. To a noticeable extent the spatial relations between the shares of the Bebehupa, Berekipa and Arehu in the extended tract of Jegase land marked by the sites of former settlement can be construed as a teritorial correlate of the pattern of each lineage's ancestors' migrations to or from local groups there. The shifts of residence relevant today are remembered in some detail.

e. Land use and mobility

241 Williams (1928:156) advocated a change from shifting to sedentary agriculture for the Orokaiva on the grounds that the former was wasteful of land and labour, and that the tendency to form small independent settlements resulted from the 'lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site'. He considered shifting agriculture to be 'one of the most potent causes of village and clan disintegration'.

[36] Keesing (1951:8) noted that the mountain Orokaiva had generally resisted the post-war movement to consolidate into larger villages. So long as the 'mobile economic base' persisted, he considered that resettlement into larger permanent villages after the Mt Lamington eruption would be unlikely to succeed. The Orokaiva showed no inclination to adopt more intensive sedentary cultivation and he predicted that a return to shifting agriculture would involve 'seasonal movement' outward from the environs of the settlements to new cultivation areas, and later the resumption of settlement in scattered hamlets. In view of these assertions about the connection between agricultural practice and settlement patterns, upon which Williams and Keesing based their discussion of economic development, it may be useful to examine the relations in Sivepe between mobility and village stability on the one hand, and traditional land use on the other.

621 [36] [72] Keesing suggests that the tendency, mentioned by Williams, for the Orokaiva to disperse into smaller residential units since pacification had been particularly marked on these heavily populated slopes. The suppression of intertribal feuding probably

[1] To a lesser extent they are also interspersed with parcels of other lineages' land.

621 At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[154] [166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [166] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

171 ● 241 361 Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as Williams says, the Orokaiva move their garden sites frequently. Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Nahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one man's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[62] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepe. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
171 result in repeated changes of residence as it does among the
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[578]

[1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Chapter 5

The land and economic development

433 a. Shifting cultivation and residential stability

Under the present system of horticulture the amount of land surplus to current subsistence needs is small and imposes limits to expansion of commercial agriculture.

Williams (1928:154) regards the system of subsistence cultivation as wasteful because it requires such a large area per person. However, the practice of shifting gardens frequently and for short periods on scattered plots does give maximum yields and maintains soil fertility. Brookfield and Brown (1963:166) point out that no successful alternative to land rotation has yet been proven for subsistence agriculture in the tropics. Population pressure and soil fertility are not sufficiently serious problems on the slopes of Mt Lamington to warrant the measures which Fisk (1962) recommends in other circumstances.

[361] Keesing (see Chapter 3, Section e) argued that the rotation of land adversely affected social stability. But the settlement pattern which developed after the emergency shows that there is no necessary connection between dispersed settlement and either the local population density or the method of bush fallow rotation. Some very large villages formed after the eruption (e.g., Soroputa and Kiorota) retained large groups of immigrants who owned no [166] gardening lands near at hand. The present high rate of mobility between other villages, most of which are much larger than before, is not closely correlated with the shifting of garden sites. Among the Chimbu, by contrast, land use is more intensive, but frequent shifts of residence between scattered hamlets are related mainly to gardening needs.

178 With the introduction of cash cropping the Chimbu pattern of 361 settlement is becoming more permanent (Brookfield and Brown 166 1963:98). There is little significant evidence either to support or oppose our belief that the planting of individual coffee plots since the mid-1950s has not been associated with a drop in

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178 361 166 241 individual mobility among the mountain Orokaiva. We especially doubt the generalization that the introduction of tree crops induces the fragmentation of villages into small 'bush settlements' which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

[241] [178] [177] Norton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 614 Norton expresses a view widely held among government officers[3] that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

(b) Climate

According to Köppen's climatic classification (Köppen and Geiger 1930) the whole area falls within the Af category (humid tropical lowland), the uniformly high temperatures and rainfall providing a long growing season calculated by the CSIRO to be effectively twelve months in 9 years out of 10.

Two seasons, commonly referred to as 'wet' and 'dry', are definable in terms of wind direction, rainfall and humidity and are clearly recognised by the Orokaiva. The 'wet' season, from December to March, is characterised by north-easterly or north-westerly winds, high temperatures and humidities and late afternoon thunderstorms, while the 'dry' season, from May to October, experiences north-easterly winds, lower temperatures (particularly at night),[1] less cloud cover and more irregular rainfall, both in frequency and intensity.

The mean annual rainfall almost everywhere exceeds 100 inches, increasing inland to 157.6 inches at Awala on the lower slopes of Mt Lamington. The wettest and driest months are December and July respectively, the precipitation ratio between the two being in the range of 5:1 or 5:2. The rainfall pattern is not strongly seasonal by Papua-New Guinea standards and the element of seasonality decreases from the coast inland, from a coefficient of seasonal variation of 0.34 at Buna to 0.27 at Awala. Further, the deviations from the mean reveal that there is only a moderate variability of rainfall; nevertheless it (as revealed in Table 1:1) has considerable bearing on the rhythm of agricultural activities and economic life in general. While the pattern of food production clearly varies with the two dominant seasons,[2] the time-consuming tasks of clearing bush and establishing new gardens show no definite pattern other than a close association with the occurrence of dry periods. Thus the availability of labour and its application demand some flexibility to accord with the vagaries of weather.

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[1] Mean maximum temperatures over the year are in the range of 83° to 88°F., relative humidity at 9 a.m. is 80 per cent falling to 72 per cent at 3 p.m., and mean minimum temperatures are from 65° to 70°F. These figures are derived from observations made at Sivepe on the lower slopes of Mt Lamington. Temperatures can be assumed to be 5°F. higher at the coast and the diurnal range slightly less.

[2] Distinguished by the Orokaiva as garepa - the wet season - when the staple taro (Colocasia) is in production, and huvira - the dry season - when the people must resort to sago, breadfruit and less favoured foods.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[311] [136] [417] [2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

794 not necessarily leaders in the old authority structure but often
177 people with particular experience of white rule (e.g., policemen).[1]
178 Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

178 The ending of inter-tribal skirmishing, which directly affected
657 the social roles of the sexes, also extended the physical range of
36 interactions open to individuals and resulted in the proliferation
[721] of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

● 244 From its beginnings the mainstay of government policy was the
[697] encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocos, coffee, oil palm, cotton,
[466] tobacco and rice were all tried; however, owing to a fall in prices,
[434] all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern
[433] Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some 1,000 cocoa trees were also planted in the pre-war period, although only the copra and coffee were worked during this time. All commercial agriculture ceased with the Japanese invasion in the second world war and was again interrupted by the eruption of Mt Lamington in 1951. The principle of compulsion was withdrawn in the same year and community enterprise largely ceased in the mid 1950s with an increasing trend towards individual plantings. The whole scheme was characterised not only by low returns to labour, delays in payment,[2] frequent disputed claims to plantings and serious problems in work organisation, but also by a definite feeling of resentment on the part of the indigenous participants.

(c) War and natural disaster

The Orokaiva view of the government was no doubt influenced by the second world war, which led to the Japanese occupation of the Northern District from July 1942 to January 1943, and by the eruption of Mt Lamington in January 1951, causing the death of over 4,000 people and the destruction of the district headquarters and staff at Higaturu.

The impact of the Japanese invasion and subsequent Allied readvance has never been assessed but must be considered profound. All Australian administration ceased and, when resumed, was vested in the Australian New Guinea Administrative Unit (ANGAU), a military authority. Several thousand men co-opted as carriers by both Australians and Japanese worked under very arduous conditions.[3] Since the Orokaiva lay athwart the main Buna-Kokoda route which was the scene of fierce fighting, many villagers retreated into the surrounding hills where they were obliged to subsist on very limited resources because of the absence of much of the potential labour force.[4] Others sided with the Japanese or profited by the power vacuum to attack or betray Allied troops and civilians or to assert their authority over other Orokaiva. On resumption of Australian rule, twenty-two men were sentenced for such deeds by a military tribunal and publicly hanged at Sangara and Higaturu.[5]

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[1] An estimated 111,000 trees at a spacing of 10 by 10 feet.

[2] As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

[3] For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[4] A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

[5] A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

797 The majority of Papuan teachers remain unqualified teacher-evangelists although the mission is largely responsible for education in the sub-district at the primary, secondary and technical levels. A significant feature of their education programme as a whole remains its total disregard for agricultural training, except incidentally at the Martyrs' Memorial Secondary School where the pupils maintain a coffee garden as well as their own food gardens.[1]

[743] [657] Medical work has already formed a large part of the mission's activities and most mission stations operate a clinic and small hospital while a T.B. hospital is maintained at Embi. As with education, these activities are largely standardised by the Administration and the Department of Public Health is gradually taking over from the mission in this field.

(e) Recent developments in commercial agriculture

● 241 In 1941 a European planter obtained an agreement, under the Transactions with Natives Ordinance 1893-1935, to exploit the communal rubber plantations in the Awala area.[2] These had not previously been worked. Production commenced in 1943 and continues to date, interrupted only by the Mt Lamington eruption. However, the number of plantations incorporated in the scheme fell steadily and by 1965 only about 30 stands were being worked and tapping had become irregular. This is due partly to poor communications, partly to the fact that an agreement satisfactory to all parties was never arrived at and partly to the planter's own trees coming into full production.[3]

[245] The re-opening of Popondetta agricultural station in 1954 led to a renewal of interest in cash cropping with, in particular, the extensive planting of cocoa. By 1964 there were estimated to be 491,000 indigenous-owned coffee trees in the sub-district, 244,000 cocoa trees, 25,700 rubber trees (almost entirely the product of natural increase) and 108,000 coconut trees. This pattern of steadily increasing plantings only levelled off temporarily in 1959-60 with falling coffee prices, a shortage of coffee seed and inadequate marketing arrangements for cocoa. At the time labour

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[1] However, agricultural training at several levels has been available since 1955 at DASF's Popondetta Agricultural Station (now Popondetta Agricultural Training Institute).

[2] These had been established during the first world war in that part of the District considered too far inland for worthwhile copra production. There were 137 stands in all.

[3] For a detailed description see Rimoldi 1966:86-93.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

241 was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva
443 a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

241 An important factor in the growth of interest in cash cropping
657 has been the implementation of a variety of land tenure and market-
[425] ing schemes, directed entirely towards the indigenous producers and in part initiated by them. Since 1957 the Higaturu council has been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context
474 of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

454 In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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[1] See Howlett 1965, for a detailed description.

[2] See Crocombe and Hogbin 1963:89-93.

[3] Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

[4] See Crocombe and Hogbin 1963:94-6.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 46 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

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[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

241 universally small and there is no evidence to suggest that any
[464] village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are
no motor vehicles owned by individuals or groups of subsistence
493 villagers,[2] although a number of villages now possess copra driers
407 and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage
[461] labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

731 (ii) Consequences of the disasters. The effects of the war and
433 the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[439] [2] With the single exception of the indigenous ex-servicemen settlers,
[464] several of whom own vehicles; imported foodstuffs comprise a signif-
[465] icant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 731, p.16--Analyst]

Chapter 3

The village economy

433 [128] This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of [251] life being produced through shifting agriculture and the subsidiary [438] pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

[436] The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

(a) The subsistence sector

• 24 (i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it [361] does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many [184] settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] [476] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Bananas, coconut, breadfruit and '<u>hingi</u>' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach [417] [136] maturity. In the less densely settled areas where wild pigs are common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (<u>Colocasia</u>) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (<u>Xanthosoma</u>) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4). A

[2] See p.23.

A, [See Category 102, p. 38--Analyst]

24 pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

[262] In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the [224] domestic pig, and birds and small marsupials which are hunted. In Inonda and other areas more low-lying than Sivepe, rivers are larger [226] and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that yams and sago also are very recent introductions into their area. [262] The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sera',[3] as distinct from the ordinary taro gardens, called 'pure'. [824] The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

43 (ii) Exchange. The most common transactions are the daily ex-
13 changes of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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1 Breadfruit is common only in the inland areas.

[824] 2 Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

3 Such gardens are often only roughly cleared and not weeded, thus reducing labour.

438 [437] consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

434 [443] The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

● 244 (i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less [571] than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the [433] trees are self-sown. As well as lacking maintenance, in most cases

241 [433] holdings of commercial trees are not fully, and sometimes not at all, exploited by the owners.[1]

Most have been established on land cleared for the purpose and are seldom interplanted with subsistence crops. However, a 'catch crop' of taro, sweet potato or corn may be taken from the newly cleared land before planting coffee or cocoa and it is only now becoming common to plant commercial trees in subsistence gardens after the food crops have been harvested.[2]

245 The techniques of cultivating and processing cash crops within the village are simple. Coffee is sold in parchment form. In most cases the cherries are pulped by stamping in a creek to split them open, and then the beans are removed by hand and washed. Some villages possess pulping machines. After fermenting for about twenty-four hours in wooden containers, the beans are washed again and sun-dried. A few people erect drying platforms but most simply spread the beans on sleeping-mats in the village square. The buying agency rejects parchment that has not been adequately dried but no price differentials are applied. The coffee season extends from about March to October and people may begin weeding some weeks 474 beforehand. OCGS announces the season's coffee price (as determined 245 by world market conditions) some weeks before buying commences, but few producers learn it in advance and, since they need to begin harvesting a month or two before the time of sale, the element of uncertainty may deter them from maintenance and harvesting even in years of high prices. All coffee is purchased by the society, which is sometimes prevented from buying by lack of funds, lack of transport, or by the poor state of the roads. Buyers may visit only once a month or less.[3] There is scope for an immediate quadrupling of production from existing trees,[4] and more active campaigns and perhaps additional buyers might help achieve this.

245 Cocoa, like coffee, is maintained, if at all, by occasional clearing of grass and weeds from around the trees. Harvesting is carried out immediately before sale - if possible, on the same day.

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[1] The coffee trees in Popondetta sub-district in 1963 should have yielded about 200 tons of polished coffee, but the actual level of output was only 41 tons (DASP, Popondetta, File 1-6-A(4)).

[711] [2] This practice was followed by indigenous smallholders in Malaysia and Indonesia for two decades and resulted in the planting of millions of acres of rubber by the 1930s. See, for instance, Thomas 1965:101.

[3] In marked contrast to the more densely populated and more accessible parts of the highlands where competition among buyers is keen and some routes are visited daily.

[4] See footnote 1 on this page.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [651] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCCS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

244 Apart from the few trade stores and coffee pulpers, little income [771] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

241 [425]

often high. A large proportion of the ex-servicemen settlers in the sub-district comprises former Orokaiva villagers and, up to 10 December 1964, the DASF in Popondetta had received requests from thirty-five villages in eight different census divisions for the conversion of clan lands to individual cash crop blocks under the 1963 Ordinance. This suggests that intending cash croppers see their best opportunities as lying outside the village environment. In acknowledging this, an important factor is, according to Morawetz (1967:18), the advantage of having a consolidated holding instead of fragmented and often widely scattered plots, which are wasteful in terms of work organisation and therefore productivity per labour unit.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[594] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4.

[4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timusu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A. [See Category 871, p. 307--Analyst]

433 subsistence holdings in Sivepe, three individuals had no producing staple foods in their gardens.

592 Three of the fifteen households surveyed comprise only a single member. Two of these were a married couple who were considered, for the purposes of the survey, as separate households on the grounds that the wife lived for only short periods with her husband, dividing most of her time between her brother's and her father's houses instead.[1] The husband and the third individual, an old man, lived in their own houses, although the former abandoned his on departure from the village in August. One widowed woman and her children had no house of their own but shared those of primary kin until the end of March when she left to marry a man in another village. A second family left at about the same time, in search of wage employment. Thus, by November 1964, the number of households had fallen to twelve while for most purposes the separated woman (household 8) had become a member of her parent's household (14).

All the identified households cultivated separate gardens. For most of the survey period, two households had attached to them the wives and children[2] of two men at work outside the District. Both household heads, in establishing a garden, set aside a portion for the sole use and responsibility of these women, as they were expected to contribute to the household's food requirements.

(a) Food gardens

● 24 [125] A detailed survey was made of the holdings of seven households, selected to provide a cross-section of the community in terms of status of head, structure of household and involvement in cash cropping. These data were then compared with that collected by Rimoldi almost two years previously (see Tables 4:1 and 4:2). While the small size of the samples, 11 and 7 households respectively, makes it dangerous to draw conclusions, a few observations can be made.

Table 4:1 reveals a fall of 44 per cent in the average size of holdings planted with taro (Colocasia) and sweet potato. In 1964, the maximum sizes of taro and sweet potato areas were much lower than in 1963. This is offset, however, by very substantial increases to three and nine times (respectively) in the average plantings of yams and Xanthosoma. The holdings of two young household heads were responsible for almost all of these increases.[3]

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[1] i.e. effectively there were only 14 households, as recorded in Appendix 1.

[2] In one case, the daughter of the household head and her son, and in the other, the man's wife and her son.

[3] One has established a yam garden of 0.16 acres and the other a Xanthosoma garden of 0.15 acres.

Table 4:1

Sivepe: mean garden areas under cultivation, 1963 and 1964*
(acres)

Garden	Per head of population		Per able-bodied person (over 16)		Per household	
	1963	1964	1963	1964	1963	1964
Currently producing	0.14	0.05	0.27	0.10	0.57	0.20
Planted but not producing	0.12	0.11	0.23	0.20	0.48	0.43
Cleared only	0.10	0.04	0.20	0.08	0.43	0.17
Total area under cultivation	0.36	0.20	0.70	0.38	1.48	0.80

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Table 4:2

Sivepe: food plants per household, 1963 and 1964*

Crop		Average		Range	
		1963	1964	1963	1964
Taro (Col.)	(acres)	0.97	0.54	0.39-2.30	0.40-0.72
Sweet potato	(acres)	0.07	0.04	nil-0.20	nil-0.07
Bananas	(plants)	71	128	35-126	73-231
Sugar-cane	(clumps)	34	40	11-54	21-99
Ina	(plants)	88	54	nil-400	24-104
Yams	(vines)	65	202	nil-136	nil-892
Manioc	(plants)	few	10	few	2-30
Xanthosoma	(plants)	28	252	nil-91	nil-1027
Corn	(plants)	223	65	nil-442	nil-157
Pineapples	(plants)	nil	4	nil	nil-24
Cucurbits	(vines)	13	5	9-28	nil-14
Shallots	(plants)	few	1	few	nil-6
Beans	(plants)	17	15	nil-110	nil-63
Tomatoes	(plants)	nil	1	nil	nil-3

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Between the two surveys, cultivated area per head fell (see Table 4:1) to 55 per cent of the figures collected by Rimoldi and close to that considered the minimum requirement for shifting

241 cultivators in New Guinea.[1] This was due partly to changing emphases in the pattern of work between the two surveys, particularly the greater amount of time used for external agencies and in the inception of two communal enterprises (the establishment of a cash crop garden and preparations for the transfer of the village to a new site). Three other factors must be taken into account. [125] Firstly, a slightly different survey technique was employed by Rimoldi. The 1964 measurements were confined to a single point in time, whereas Rimoldi measured all the gardens and then added any extensions which occurred during the survey period (about six weeks) without deducting any areas which might have gone out of [132] production. Secondly, 1964 proved to be a highly unseasonal year at Sivepe in that recorded rainfall in August exceeded that in December (1,542 and 1,416 points respectively) and the number of rain days was the same in each month (24). This disrupted the cycle of agricultural activities and prevented the customary clearing of forest for new gardens during dry weather. For this reason, figures for areas planted but not producing (see Table 4:1) approximate closely to Rimoldi's, whereas cleared and producing areas fall far short.[2] Thirdly, two household heads within the group surveyed in 1964 had been absent from the village for two to three months before the data were collected, and third's activities were partially diverted by his involvement in a contract to build a house at Saiho hospital, and most of the community were involved for several weeks in building the new road to Sasembata and in erecting classrooms on the mission station.

245 (b) Economic trees and livestock

The holdings of economic trees (Table 4:3) indicate their importance for subsistence. Breadfruit comprises a very large proportion of the intake of starches at the onset of the dry season and only when most of it has been harvested do the people resort to sago-making. Areca is chewed by almost all adults, while the milk of the green coconut is drunk as refreshment and the meat grated to use in preparing staple foods. Hauga (Canarium sp.) nuts, when in season, are gathered and consumed largely by children.

[136] All economic trees, except for the recently introduced orange, grow wild in the bush but are claimed as individual property. Several, particularly coconut, areca palms and hingi trees, are also planted in gardens and on the periphery of the village.

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[1] See Barrau 1958:32; Brookfield 1962:245, 251; Bureau of Statistics 1963:14.

[132] [2] Similarly, a long unseasonal dry spell occurred during the last few weeks of Rimoldi's survey with the consequent extensive clearing of land for new gardens.

8: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in clearing the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepa having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepa precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepa case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 401, pp. 34-37--Analyst]

554 councillor for the villages of Inonda, Ajoro, Hohota, Hosou and Sewa. He is the senior resident member of the traditionally-dominant lineage and the trade store owner. He initiated the building of the copra-drier and takes the lead in most other new undertakings and at times of crisis or dispute, though his views are sometimes successfully opposed. In land matters he defers to or seeks the advice of the oldest male resident.

Economic holdings

241 [126] The data on crop patterns and areas of subsistence gardens are presented with the data for 1962 given by Crocombe and Hogbin (1963:7-10). The figures for garden areas are not strictly comparable, since the 1964 data on garden areas, though not on crop numbers, were obtained by mapping from aerial photographs whereas the 1962 figures were calculated from the results of chain and compass surveys. This latter technique was used in 1964 for mapping the areas under taro and sweet potato. Other crop data were obtained by counts in the gardens. Information on holdings of economic trees and the inventories of household property were derived from interviews and were not checked on the ground, except for trees recently planted in the village surrounds.

[592] Although the mean size of household is 3.9 people, two households contain only one adult. There is considerable flexibility in residence and in arrangements for making gardens. For instance, the mother of the wife of one household head came to settle in the household permanently in July 1964; she maintains her own garden, which was cleared by her son and her daughter's husband. Another household comprises a widower who makes his own gardens and has the highest cultivated area of any household; however, his eldest son's wife, in a separate household, does some of his harvesting and prepares most of his meals. The widower also makes gardens for the widow who heads household 18. This woman lived with her two youngest children until August, when her eldest son and his family (household 21) moved into her house on the new village site. Another garden was made on her behalf by her brother in another village. Household 24 comprised the parents of two sisters who had married Inonda men. At first, they lived with household 23 at the old site but moved in October to join household 21. They maintain their own gardens.

(a) Food gardens

At the beginning of February 1964, the nine Inonda households were cultivating 27 gardens, at a mean distance from the village of 0.5 hours' walking time. In December 1964 the eight households remained after the departure of the Jego'undi man had 29 gardens at a mean distance of 0.3 hours' walking time.

241 In November 1964, the total area cultivated by the villagers was 10.27 acres. Table 4:8 shows the average area for each person, for each able-bodied person over 16 and for each household. The comparable figures for 1962 show that there has been a decline in the cultivated area of 15 per cent per person and per able-bodied adult, and 22 per cent per household, this latter reflecting the smaller mean size of households (3.9 in 1964 against 5.6 in 1962).

Table 4:8

Inonda: mean garden areas under cultivation, 1962 and 1964 (acres)

Per head of population		Per able-bodied person (over 16)		Per household	
1962	1964	1962	1964	1962	1964
0.31	0.27	0.67	0.57	1.47	1.14

Table 4:9 shows the crops produced in the gardens. As in Sivepe, there has been a marked decline (amounting to 49 per cent) since 1962 in the area planted with taro and sweet potato and in the number of sugar-cane and Ina clumps, but there have been compensating increases in yams and Xanthosoma and lesser increases in manioc,

Table 4:9

241 592 Inonda: food plants per household, 1962 and 1964*

Crop		Average 1962	Average 1964	Range 1962	Range 1964
Taro (Col.)	(acres)	1.3	0.70	0.4-2.6	0.24-0.92
Sweet potato	(acres)	0.2	0.06	nil-0.4	nil-0.18
Bananas	(plants)	81	88	12-145	34-144
Sugar-cane	(clumps	71	31	34-167	17-50
Ina	(clumps)	56	7	4-181	nil-18
Yams	(vines)	24	57	nil-61	4-241
Manioc	(plants)	10	14	4-27	nil-34
Xanthosoma	(plants)	5	39	nil-25	nil-138
Corn	(plants)	72	79	nil-140	nil-204
Pineapples	(plants)	1	17	nil-7	nil-43
Cucurbits	(plants)	2	12	nil-10	5-25
Shallots	(plants)	few	nil	n.a.	nil-4
Beans	(plants)	few	nil	n.a.	nil
Tomatoes	(plants)	few	1	n.a.	nil-6
Pawpaw	(plants)	n.a.	41	n.a.	14-78

* 1962, 8 households; 1964, 9 households.

241 592 bananas, corn, cucurbits and pineapple. The change is probably due to the storable qualities of yams and Xanthosoma and the comparatively small amount of attention required during growth by each of the crops showing an increase. The slight increase in corn plantings is due specifically to one man sowing a 'catch crop' in a garden cleared for coffee. The increase in the number of yam vines, on the other hand, is evident for several households. Although two households had no Xanthosoma, the others all exceeded the 1962 average. Of the four households which had more than 20 pineapple plants, two intended to market some of their produce.

245 592 231 (b) Economic trees and livestock

Table 4:10 shows the average holdings of economic trees and livestock per household. Following the change in the village site, all householders planted several coconut palms around their homes

Table 4:10

Inonda: economic trees and livestock, 1964

245 231 592

Item	Average per household* Bearing**	Planted in last year	Range (bearing only)
Breadfruit	3	nil	nil-18 trees
Areca palm	1	6	nil-8 "
Coconut	17	25	6-35 "
Hauna	1	nil	nil-3 "
Pandanus	3	nil	nil-16 "
Sago	4	nil	nil-9 "
Mango	1	nil	nil-2 "
	Total		Range
Pig	2		nil-1 animals
Dog	6***		nil-2 "
Cat	2		nil-1 "
Fowl	7		nil-3 "

* Eight households only. Information was not obtained for one household, a widow originating from Urio village. It is unlikely that she possessed rights to trees in Inonda (cf. Crocombe and Hogbin 1963:47), although her sons would.

** One householder claims extensive holdings of the specified trees on the lands of his home village of Hohorita. These holdings, which he did not exploit during the survey and which are excluded from the above figures, include: coconuts, 30; areca palm 10; sago, about 50; breadfruit 20; pandanus, at least 50. The claimant is the sole survivor of a large family killed when Mt Lamington erupted.

*** Including 3 pups.

556 [25] [24] [43] [43] An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting some of the needs of those without yams. In such a case there is no limit to the individual level of production although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

433 [24]

121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

The adult residents of Sivepe are active, on average, 40.6 hours per man-week, although, as Fig.6:2 demonstrates, there is a substantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

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Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[46]
[262]
[251]

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New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

241

Table 4:4

Sivepe: participation in cash cropping, by household

Household no.	1	2	3	5	6	9	10	11	13	14	15
Individually owned coffee trees	57	-*	77	-	-	246	-	-	123	-	-
Currently exploiting coffee directly	yes	yes**	-	-	-	yes	-	-	yes	-	yes***
Closely assisting in exploiting coffee	-	-	-	-	-	-	yes	yes	-	yes	-
Exploiting rubber	-	-	yes	yes	-	-	-	-	yes	-	-
Recent attempt to establish individual rubber holding	-	-	-	-	-	-	-	-	yes	-	yes
Currently establishing coffee	-	-	-	109♯	-	-	-	-	-	-	-
Participant in communal garden	yes	yes	yes	yes	yes	yes	-	-	yes	yes	yes

* 'None' or 'not applicable'. ** His son's (household 3).

*** The head of this household has access to the coffee of household 13 as a result of having asserted a claim to it. Household 13 had acquired the coffee in the individualisation of a communal planting established about 1956. See Rimoldi 1966:84.

♯ Staked out only. The trees will belong to the daughter's husband, who is currently attached to the household.

Note. Tables 4:4 to 4:7 refer only to the 11 households resident in the village for the entire survey period, with household 8 incorporated in 14.

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SIVEPE

WEEKLY PATTERN OF ACTIVITY-ALL ACTIVITIES AND SELECTED GROUPS FIGURE 9:2

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0323 Orokaiva 0323

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SIVEPE

WEEKLY PATTERN OF ACTIVITY-SELECTED SUBSISTENCE ACTIVITIES

FIGURE 8:3

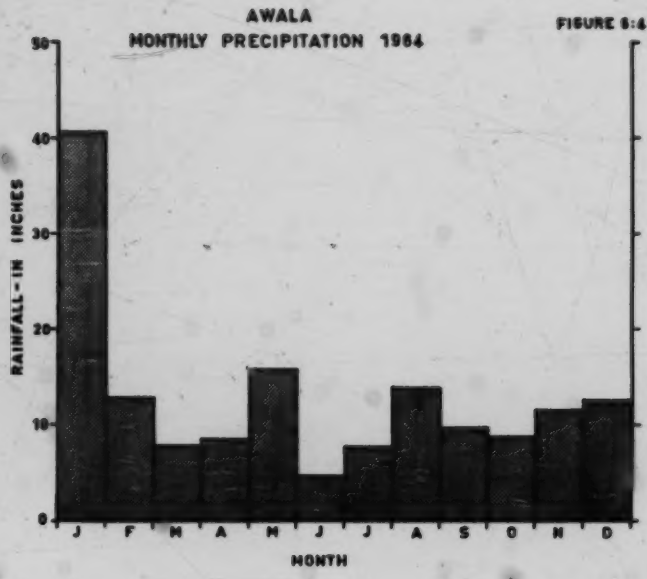

FIGURE 8:4

much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ina, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

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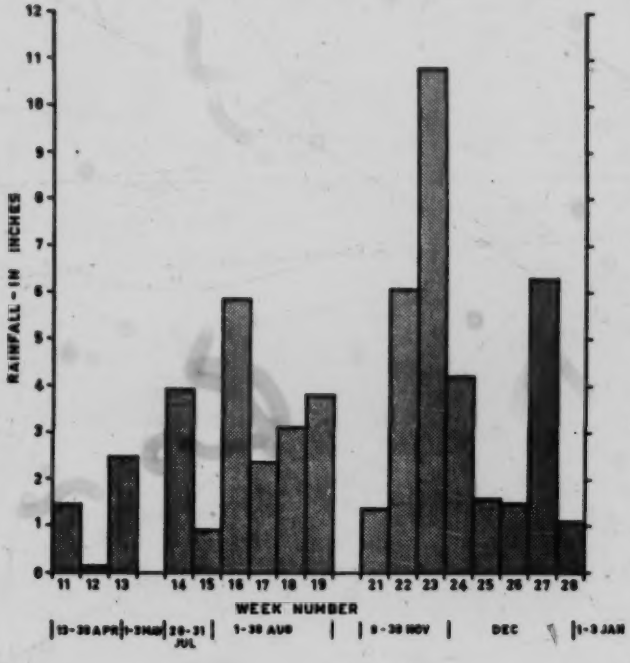
132

SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 29 ONLY) FIGURE 6:5



512 433 24 [22] Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

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464

Table 5:4

Siroge: mean time spent per man-week on all activities in each recording period
(hours per man-week)

Group	Activity		Period I	II	III	Survey
Clearing			4.4	2.4	3.2	3.7
Subsistence gardening	Fencing		-	-	0.2	<0.1
	Taro	- plant	1.9	2.8	3.0	2.4
		maintain	3.0	3.9	4.5	3.6
		harvest	3.4	1.9	3.0	3.0
		market	0.1	-	-	0.1
	Sweet potato	- plant	-	-	<0.1	-
		harvest	0.7	1.1	2.4	1.3
		market	0.1	-	-	0.1
	Yam	- plant	0.6	-	-	0.3
		maintain	-	-	0.2	<0.1
		harvest	0.8	0.1	0.6	0.6
	Minor crops	- plant	-	0.1	<0.1	<0.1
		maintain	-	-	0.1	-
		harvest	1.0	3.4	1.1	1.5
		market	<0.1	-	0.3	<0.1
	Total		11.6	13.5	15.6	13.2
Other subsistence food production	Fishing		0.2	-	0.5	0.2
	Hunting		0.7	0.8	4.8	1.8
	Sago-making		-	1.5	0.4	0.6
	Total		1.0	2.3	5.7	2.7
Other subsistence activities	Preparation of tools and equipment		0.3	-	0.5	0.3
	Construction		2.2	1.6	0.6	1.6
	Total		2.5	1.6	1.1	1.9
Household	Washing		<0.1	0.2	0.3	0.2
	Cooking		4.8	4.6	5.1	4.8
	Collecting firewood		0.2	0.5	0.3	0.3
	Total		5.1	5.4	5.7	5.3
Social obligations	Marriage		-	0.2	-	-
	Death		1.7	0.9	0.2	1.1
	Other		0.8	0.7	1.7	1.0
	Visiting		1.3	1.0	1.3	1.2
	Total		3.8	2.8	3.2	3.4
Cash cropping	Coffee	- maintain	0.2	-	-	0.1
		harvest	0.9	0.2	-	0.5
		process	1.0	0.3	-	0.6
		market	-	0.5	-	0.1
	Rubber	- harvest	0.1	<0.1	0.5	0.3
		market	-	-	0.1	-
	Total		2.2	1.1	0.7	1.6
Paid work			2.0	1.2	1.0	1.6
Sick	Personal		0.5	0.2	1.2	0.6
	Care of sick		0.3	0.2	0.2	0.2
	Total		0.8	0.4	1.4	0.9
External agencies	Purchasing		0.2	0.4	0.7	0.4
	Council work		0.9	1.8	1.0	1.2
	Meetings		1.3	0.5	1.8	1.3
	Church work		0.3	0.3	0.1	0.2
	Church services		3.1	3.7	1.7	2.7
	Total		5.9	6.7	4.8	5.8
Miscellaneous	Recreation		0.1	0.4	0.4	0.3
	Other		0.1	-	1.1	0.4
	Researchers		0.3	-	0.2	0.2
	Total		0.6	0.5	1.7	0.9
Total - all groups			40.0	37.5	44.2	40.6

252 [461] gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 [262] (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 512 [432] (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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1 See p.20.4

[462] 2 String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A, [See Category 435, p.90--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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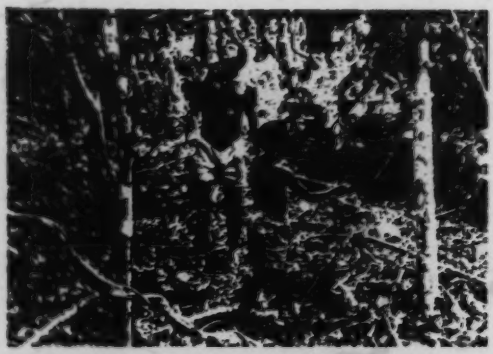

Plate 5. Men are responsible for the initial clearing of a new garden site. Boys acquire the appropriate skills by assisting their elders.

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Plate 6. Women are responsible for the final preparation of the garden site prior to planting. Here, following an initial burn, the debris is being piled around the tree stumps and larger timbers to burn them a second time.

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Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

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[433]

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

[824]

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

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During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

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[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

Chapter 8

The two villages compared

433 184 (a) Levels of activity in relation to available resources

In expending an average of 43.5 hours per man-week the Inonda villagers are slightly more active than their Sivepe counterparts, but the difference relates to the subsistence sector. Although both are communities of cultivators with taro the staple crop, the supplementary food producing activities are substantially more significant in Inonda, with fishing particularly important during the wet season. This more diversified economy partly explains the higher level of subsistence activity at Inonda (see Table 8:1).

More time is required to achieve subsistence at Inonda, principally because of the journey to work: 25 per cent of all activity time is devoted to travelling, even at the new site, compared with only 15 per cent at Sivepe.[1] Thus, if time spent in travelling is deducted, the difference between the two villages is eliminated, Inonda spending 25.1 hours per man-week on subsistence and Sivepe 25.5 hours.

Environmental differences provide some explanation for Inonda's subsistence economy being more diversified and the location of activities more dispersed. Not only are the soils around Sivepe of a uniformly high agricultural value but all the land is forested [311] and therefore potentially available for cultivation. By contrast, the soils at Inonda are of variable quality and at least one-third of the total area is grassland and therefore unavailable for cultivation according to present practices, while even some of the forested areas are unsuitable due to the infertility of their soils. [241] Most Inonda gardens are made on a land system covering only one-fifth of the total area. Probably on account of this generally lower soil fertility, the fallow period at Inonda is about ten years compared with only six at Sivepe and, using Crocombe and Hogbin's and Rimoldi's estimates of the garden requirements per head of

[1] The contrast is even more marked if the uncorrected percentages are used - 32 per cent and 18.3 per cent respectively.

A, [See Category 461, p.171--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

433 184 [24] [222] population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in the hinterland of a village which is located at the forest-grassland boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

461 The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases only about one-third of this is directed towards cash production. [m] Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

433 184 In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100\,\frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.
C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.
L = acreage of cultivated land per head of population per annum.

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites.

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector.

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine.

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work.

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

[1] This figure was determined by using yield data gathered in Sivepe during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 3.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

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When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Work patterns

Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5)[A] the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa blocks. After establishing their homes in Ononda village most of these villagers cleared rain forest in the Ononda area, thus establishing their cultivation rights to nearby areas of land. Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 [614] [613] A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [242] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 719 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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[423] (iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

[433] (ii) the production of crops for sale;

[242] (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

[361] (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

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Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

474 support, a peak number of 19 households being engaged during 1949.
241 In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocoa pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-
[731] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 The mission-sponsored Christian co-operative embraced more
241 people and a much greater area than the Gombe Co-operative. The
177 Anglican Mission at Gona is responsible for an area that stretches
797 approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[659] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

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[1] The eight societies within the association were to be centred at Gona, Garará, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

474 worked for eight. This became an important basis for resentment
241 and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of
474 dynamic growth in the co-operative movement in the district. He
241 had a deep interest in co-operatives, and had been associated in
177 Australia with the Christian Socialist Movement. He was speci-
797 fically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural
[657] Officer, Mr Cockshott. In mid-May he commenced a weekly co-
[191] operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

[782] Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed
[795] in the gardens. This aspect of the co-operative movement was
[178] regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

474 In August 1949 the first four co-operatives in the Territory
241 were registered.[1] They were, in order: Yega, Gona, Garara and
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[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognize that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income
[242] received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[659] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½d. to 4d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

FOREWORD

101 [619] In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

241 241 423 657 During the last ten years there has been considerable development of commercial agriculture within the area. Many people have planted cash crops on land held under customary tenure; some villages have planted communal blocks on land set aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of the land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombe-Sangara dialects) who are served by the Higatura Local Government Council.

[194] regrowth. They are lower lying than the surrounding savannah and are poorly drained.

(ii) The Girua Association consists of coarse textured, recent riverine deposits covered with forest or regrowth. It lies beside the Sambogo and Girua rivers. The association covers about one fifth of the Inonda lands and, being permanently moist and apparently fertile, these soils are extensively used for food [829] gardening. The local people have given this soil type the name tumene.

(iii) The Warisota Association occurs on the lower slopes of the valleys of the Hydrographers Range, where the Sambogo river and its tributaries emerge from the foothills. The soils are recent, well drained, medium textured clay loams, becoming fine textured with depth, and being grey to grey-brown in [197] colour. They are covered with a heavy forest or secondary growth vegetation, but there is little accumulation of organic matter in the topsoil.

[241] These soils, which cover approximately one fifth of the Inonda lands, are used for food gardens, although they are not favoured because of their tendency to dry out during the dry [829] season. On the higher ground they are known to the Orokaiva as hora while on the lower ground they are known as hohori. The hohori runs into the still lower lying tumene of the Girua Association.

(iv) The Hydrographer Association lies in the deeply dis- [197] sected foothills of the Hydrographers Range. The soils of this association are shallow, stony and poorly differentiated, carrying a hill-type rain forest. They are not favoured for gardening and the people use this land only for foraging and hunting. Its agricultural potential has been assessed as "negligible"(1), as both topography and soils are unfavourable for the growth of crops. It occupies approximately one fifth of the total area of the Inonda land.

(1) Ibid, page 26.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on [137] the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

132 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C[A](1)

805 The Inonda people refer to the dry season as huvira 824 because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [574] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 The warm moist climate is generally favourable for 241 plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

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(1) This average was computed from recordings taken over the 7 year period 1953-61.

A [See Category 132, p. 100--Analyst]

Land use

241 Food gardening: The people have been able to select the best land for cultivation, avoiding the rugged hillsides with their infertile stony soils and the kunai grasslands which are difficult to clear. The soils which they use for gardening are sufficiently fertile to give satisfactory food production without the application of artificial fertilizer. Yields are maintained by a system of bush fallowing, whereby the land is cropped once, and then left to revert naturally to regrowth for a period of approximately eight to fifteen years. There is no evidence of soil erosion or decline of soil fertility under this system and if land were in short supply the average period of fallow could probably be shortened considerably without reducing fertility. However, if a shorter fallow period was adopted, pests and diseases would probably multiply thereby causing a decline in crop yields. Moreover, short rotations enable kunai grass to become established, and this makes cultivation more difficult, as kunai is almost impossible to eradicate.

Clearing the virgin forest[1] in preparation for gardening presents considerable difficulty. However clearing the regrowth for subsequent gardens is very much simpler, and this [412] is the more common pattern. Axes and bushknives are used to clear the vegetation in preparation for planting the food crops. The dry season is the most suitable time for this operation as the felled vegetation dries quickly and is easily burned, but clearing is carried on at all times of the year. After the bush [412] is cleared, the dead timber is stacked and burned. The food crops are then planted with the aid of a digging stick. The garden is usually weeded two or three times before the crops are harvested.

Approximately ninety per cent of the land cleared is planted with the principal crop, taro (Colocasia sp.) of which at least nine varieties are grown. These varieties differ in the length of time required to mature and in resistance to drought. Though some planting takes place throughout the year, most of it is done in three periods, namely August-September (the end

(1) What is regarded as virgin forest may well have been cropped many years ago, but if so the fact has long since been forgotten by the present inhabitants.

241 of the dry season), November-December and March-April. A little Xanthosoma sp. (Chinese or giant taro) is planted as it is more resistant to dry conditions and therefore acts as a reserve against drought.

Most households(1) grow some sweet potato, planted either as a pure stand or amongst taro. In the latter case it is usually planted at the same time as the taro, but occasionally it is planted as a second crop after the taro has been harvested. This, however, is not the normal practice and yields from vines grown in this way seem to be low.

Other food plants are scattered throughout the taro and sweet potatoes and include corn, bananas, sugar, various kinds of ina (edible pit-pit), yams, manioc, pineapples, cucurbits, tomatoes, beans and shallots. Table 1 shows the average area or number of these plants (in all stages of growth) per household at the time of the survey.

Table 1.

Food plants per household (8 households)

Crop	Average	Range
Taro (Colocasia sp.)(2)	1.3 acs.	2.6 - 0.4 acs.
Sweet potato(2)	0.2 acs.	0.4 - 0 acs.
Bananas	81 trees	145 - 12 trees
Sugar	71 clumps	167 - 34 clumps
Ina	56 clumps	181 - 4 clumps
Yams	24 vines	61 - 0 vines
Manioc	10 plants	27 - 4 plants
Taro (Xanthosoma sp.)	5 plants	25 - 0 plants
Corn	72 plants	140 - 0 plants
Pineapples	1 plant	7 - 0 plants
Cucurbits	2 vines	10 - 0 vines
Shallots	a few	
Beans	a few	
Tomatoes	a few	

(1) Details of household composition are given on page 16.

(2) Areas covered by taro and sweet potatoes were calculated from an estimate of the percentage of the total area of the garden covered by each of these two crops.

A [See Category 614, p. 16 ff.--Analyst]

241 The supplementary food plants provide both variety in the diet and some insurance against failure of either of the two main crops. Corn matures within two or three months and can be planted amongst the taro if a food shortage appears to be im-
[242] minent. Both wild and cultivated sago is used as an emergency food. There is usually a shortage of garden crops at the end of the dry season, and this is overcome by making sago. Sago is only eaten at other times when large quantities of food are needed for feasts.

The boundary of a food garden remains recognizable for about three years from the time of clearing. By then the garden is covered with either regrowth or kunai and is no longer
126 producing food. All food gardens with recognizable boundaries were surveyed by chain and compass and the area of each garden calculated.(1) The date on which the vegetation had been cleared for the preparation of each garden was determined as nearly
241 as possible. The average area of land required for food gardens for the village as a whole was found to be 12.76 acres or 0.27 acres per head of population per year.(2) Areas of subsistence gardens at present being cultivated or from which food is currently being harvested are summarized in Table 2.

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(1) Maps on a scale of one inch to one hundred feet were drawn. These have been reduced photographically and are reproduced on pages 106-108.A

[128] (2) This figure was calculated by the following method. For each household, areas of all gardens with recognizable boundaries were determined and totalled. The date at which the oldest of these gardens was established was determined for each household. From this information the area of garden land required per month was established for each household. (For example if the total area of gardens made by a household over 27 months is 5.4 acres, then that household makes new gardens at the rate of 0.20 acres per month or 2.40 acres per year.) The area of new garden land brought under cultivation each month by the village as a whole was then calculated by totalling the area required per month by each household, and multiplied by 12 to give the area required per year. This figure divided by the population of the village, gave the area of land required for gardening per head of population per year. The area of 0.27 acres of garden land per head of population per year should not be confused with the area of land which people were cultivating at the time of the survey. This latter area (0.31 acres) includes land cleared but not planted, land planted with gardens not in production and land from which garden produce was being harvested at the time the survey was made. It does not relate to any period of time, but gives an indication of the area of land which the households were actually tending at that particular time.

A [See Category 102, pp. 106-108--Analyst]

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Table 2.

Garden areas now under cultivation

	Area per head of population	Area per able-bodied person (over 16)	Area per household
Garden currently producing	0.19 acres	0.41 acres	0.90 acres
Gardens planted not yet producing	0.08 acres	0.18 acres	0.38 acres
Garden cleared yet to be planted	0.04 acres	0.08 acres	0.19 acres
Total area of garden under cultivation	0.31 acres	0.67 acres	1.47 acres

It is difficult to establish the length of the bush fallow-food garden rotation, but the majority of the gardens measured had previously been planted between 1951 and 1954 by the refugees of the Mt. Lamington eruption who settled in Inonda for several years. The Inonda folk began to plant these areas about eight to nine years after their previous use. This, they say, is shorter than the normal fallow, but crop yields from these gardens were apparently normal, which suggests that the rotation can operate satisfactorily on a cycle of eight years, though it is often considerably longer. If it is assumed that a piece of land may be planted once in every ten years, then with the present system of food gardening the Inonda people require 127 acres of land to maintain their present level of subsistence from garden crops. There is thus no pressure on land resources, for the Inonda lands(1) cover an estimated total area of 2,900 acres (excluding the Sambogo land). Of this total area perhaps one fifth or 580 acres is good gardening land and much of the remainder could be used for agricultural production if the need arose.

At present most of the food gardens are located

(1) As delineated on map on page 105A

A [See Category 102, p. 105--Analyst]

241 about one and a half miles (thirty-five minutes walk) from the village on part of the land known as Inota. They are planted contiguously: partly to keep the amount of clearing and pig fencing to a minimum and partly to ensure companionship while working in the garden (which may be related to the traditional but now unnecessary consideration of mutual protection). Because of this practice and for other reasons enumerated below many people have made their gardens on land in which their lineage has no proprietary rights. Each household has at least one garden which is currently producing and one recently planted but not yet in bearing on the Inota block. Three of the households have gardens (or are in the process of making gardens) on other Inonda lands (Eumo and Sesehauta) while three other households have made or are making gardens on land at Hohota village. Two of the latter are new gardens and they are situated about one mile from Inonda and the other, which is currently producing, lies west of Hohota village about 4½ miles from Inonda. Two other gardens made by Inonda people on Hohota lands in 1960 have now been abandoned.

The people say that in earlier times they made special feast gardens to provide food for taro festivals, death [621] feasts and other occasions. Feast gardens were often cleared on a community basis by all the working members of either the village or a sub-clan within it, but were then subdivided and a section was allotted to each of the households for cultivation. [574] The Administration has discouraged large scale taro festivals and none has been held for several years. However when a man from the village died during the survey, the members of his family decided to make a feast garden on a piece of ground which he had cleared just before his death.

We were shown two feast gardens, one made in 1953, and the other in 1960. The precise boundaries of the one made in 1953 are no longer recognizable, but the garden was apparently [574] a very large one of five acres or more. It was made to provide food for a feast held when refugees (from the Mt. Lamington disaster) from Sewa and Ajoro villages left Inonda to return home. The other feast garden, which is now abandoned, was made at Hohota by a man who has no hereditary rights in land at Inonda. He has three married daughters, two of them married

241 to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

241 41 Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

[462] All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

224 Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of [411] the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product.

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

226 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when the rivers are low and the water is clear, and spearing is then 222 easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

291 Each of the lands framed by the creeks is divided 422 between the lineages. Boundaries are marked by trees (especially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha subclan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

Table 3

Rights to food garden land

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Nature of planter's right in his garden land	No. of gardens	Area of gardens (acres)
1. Planter is a primary member of the rightholding lineage	20	9.8
2. Member of a different lineage but within the same sub-clan	18	8.3
3. Member of a different lineage and sub-clan within the same village	10	3.7
4. Member of a different lineage but within the same clan (though in another village - Hohota)	3	1.6
5. Permissive rights only (belongs to a clan which is not represented here, but lives in Inonda village)	2	1.1
6. Permissive rights only (as for 5, but gardens located in another village - Hohota)	2	2.6
Total	55	27.1

423 only permissive rights at Inonda or any nearby place. He has
241 been living at Inonda for some years on a temporary basis and
613 is dependent for gardening land on his relatives by marriage at
614 Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

423 - Informants claimed that a man in need has the right
241 to make gardens on the land of the mother's brother though this
604 is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

423 Hunting and foraging rights: Any primary member
644 of the Andiriha and Jego'undi sub-clans in Inonda can hunt or
621 forage on any portion of the Inonda land which is covered with
224 virgin bush, kunai grass, or second growth. Likewise any
[313] villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

226 Only three Inonda men exercise fishing rights out-
422 side Inonda. The first two are members of the Jego'undi sub-clan who were given rights to fish in the Sambogo river from Ere creek to Mosou village by their mother's brother along with the hunting rights already described. The part of the river concerned is adjacent to the part held by the Andiriha sub-clan. As Mosou village is situated close to the Jego'undi portion of the river, some Mosou men who have distant kinship connections with the Jego'undi are permitted to fish there. All parties confirm that no payment is made for this privilege but we have observed that the Mosou people make gifts of betel nut and sago to the Jego'undi. The Inonda councillor was given exclusive rights to fish part of the Sambogo river (adjacent to the Andiriha part but at the other end from that held by the Jego'undi) along with hunting rights to the surrounding lands.

241 Cash crops: Only small areas of land are being used for cash cropping (see map page 109). In 1955 three households planted a total of 801 trees on 1.85 acres of land situated near the Girua river on Hohota lands and these trees
241 are now in production. They are planted on land to which the
422 planters previously held only permissive rights of occupancy, although since 1961 these rights have been strengthened by registration under the Higaturu Local Government Council land registration scheme (which is explained in Appendix A). The problems associated with this land are discussed on pages 72-75. In 1961 another man planted 0.41 acres of cocoa on Inonda land in which another lineage has prior rights, but this will not produce for some years yet. A fifth man has staked out 0.6 acres of land at Inonda which belongs to a lineage other than his own, but because of the resultant dispute he will probably not plant coffee on it as originally intended (for details see page 75).

245 The small amount of coffee produced is sold in the parchment stage. If it is assumed that each tree will produce half a pound of parchment coffee annually then total production for the village will be approximately 400 lbs. The income from this, if parchment coffee is sold at 1/- per pound, would be only £20.0.0 per year for the whole village. Details of production during the past three years are shown in Table 4.

A [See Category 102, p. 109--Analyst]

231 pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring [435] villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

241 245 [124] 423 The most important trees in the Inonda subsistence economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work, they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

423 241 245 In addition to the rights of those born in Inonda, some wives claim rights to use economic trees in their home villages. They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

423 miles away and another to collect betel nut about fifteen miles away.(1)
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The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

222 Unlike in other parts of the Orokaiva country sago does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights. [262] Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

423 A total of 21 sago trees was accounted for on
241 Inonda lands, but the bulk of sago supplies is obtained from
245 outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

423 Lakes; those who are related to the Sauhaha people use trees on
241 the Sauhaha land, and those who are related to the Tandai'undi
245 use trees on their land. Three Inonda men claim rights in six sago trees in their mothers' villages.

Although informants usually refer to trees as being individually owned, in fact they are more often owned by siblings (or half-siblings of the same father) and merely referred to in the name of the eldest male sibling. Thus all but three sago trees in Inonda were owned by more than one person. Moreover, it is apparent that the Inonda people recognize implied qualifications to these rights. The resident adult children of the 'owners' are regarded as having the same rights of use (but not of control or disposal) as their fathers. Qualifications are particularly noticeable in the case of sago and a man who is not using a sago tree can scarcely refuse it to a resident cousin or even an unrelated neighbour who requires it. As a sago tree takes about fourteen years to mature, it is not unusual for a man not to have one ready when he needs it. Also, as a large quantity of food is obtained from each tree, it is common for villagers who are not closely related to exploit jointly a tree which belongs to one of them. During our stay two sago trees were harvested. One group of four men (who belonged to three separate lineages of the same clan, but one of whom lived in Hohota) harvested a tree belonging to one of them. Another man harvested a tree which belonged to his wife's family and was growing in the neighbouring village of Urio.

The village people claimed 104 coconut trees in Inonda and said that (excluding children absent at school) only two non-residents owned coconut trees there. Both were contingent members of the Inonda sub-clans. One Inonda man has 4 trees on his father's lineage land in Hohota, and two others claimed a total of 15 trees in the villages of their respective mothers. Two others claimed that they had rights to trees in their mothers' villages though they had not exercised the rights and were not sure how many trees were involved.

Betel nut does not grow well in Inonda and there are no bearing trees in the area. One man still uses three trees which he planted on the land of a neighbouring tribe in the

mountain area while taking refuge there during the war. Two others have been allocated specific trees in their mothers' villages. One obtains supplies from his wife's village, but most Inonda people must obtain their betel nut by barter or purchase from villages further inland.

Only two households own hauga nut trees in Inonda (a total of 8 trees). One man has two trees on his lineage land in Hohota village, one has four trees in his mother's village and there are some hauga trees in Aramba which Inonda people harvest on visits there.

Breadfruit are relatively plentiful, 52 trees being noted, not including 2 at Ajoro which are owned by one Inonda man, and 2 at Hohota by another. Some 37 pandanus trees were recorded in addition to one each at Hohota and Aramba. We found no instances of pandanus trees being owned by non-residents other than men who were contingent members of the Inonda sub-clans. On the other hand several breadfruit were owned by the children of women who originated from Inonda but had married elsewhere.

Non-monetary valuables

The Inonda people recognize two categories of non-monetary valuables; firstly hambo which are ornaments made of sea shells, pigs' tusks, dogs' teeth etc., and secondly di which are ceremonial head-dresses made of feathers. Hambo and di are exchanged at certain ceremonies and sometimes given in recognition of a service rendered or as a token of apology. They can also be acquired by barter, and there is still some trade in shell ornaments from the coast and in feathers for head-dresses from the mountains. In recent years, however, valuables have frequently been acquired by cash purchase.

It is difficult to value hambo and di in terms of cash and whatever formula one adopts has its inadequacies. It is nevertheless important that some attempt be made to equate them, for valuables and cash are in some circumstances acceptable substitutes for one another (especially in meeting traditional social obligations) and the acquisition of the one is to some extent in competition with the acquisition of the other.

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

[125]

(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependents. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 68]

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The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
[417] Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

	Men	Women	Average
461 221 462 [224] [226] [222] Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry deason; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
[242] Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
[241] Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

423 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

[241] [613] There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening areas of individuals. People frequently plant food crops on the land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:772.

461 apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

241 Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

245 434 Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

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[196] [198] (1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

[435] (2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

121 ambitious men could be resettled on individual holdings outside Inonda. There is no indication that freehold tenure within Inonda would facilitate improved productivity any more than the Higaturu Council registration scheme.

[241] [495] It is apparent that the highest productivity per man and per acre at present is achieved on the large-scale European plantations and the individual family holdings for Papuans, both of which are financed largely by government loans. The degree to which developments of this type can be extended is limited in practice by the volume of funds available from or through government agencies. The comparative productivity of these two forms of organization is now being analysed and it is hoped that the results will be available in the next few months.(1)

It is likely that at this stage only a few Inonda men would be suitable for resettlement on individual blocks, with development loans, but a number would be both suitable and willing to work as plantation labour. The feasibility of encouraging the ownership of plantations by Papuans seems to merit exploration, for experience elsewhere in the Pacific in recent years suggests that in conjunction with expansion of cash cropping by individuals or families, plantation agriculture operated by indigenous entrepreneurs may provide an important avenue to increased output from commercial agriculture.

(1) A paper on the Popondetta plantation economy is in the course of preparation by Dr. Diana Howlett and another on the government-sponsored family holdings by Mr. R.J. Cheetham. Both will appear in subsequent issues of this Bulletin.

APPENDIX A

The Higaturu Local Government Council Land Registration and Coffee Processing Schemes

657 The Higaturu Local Government Council was formed in April, 1956. It serves 12,000 people who belong to the southern Orokaiva culture group of the Northern District of Papua, and has 54 councillors to represent its 86 villages (of which Inonda is one).

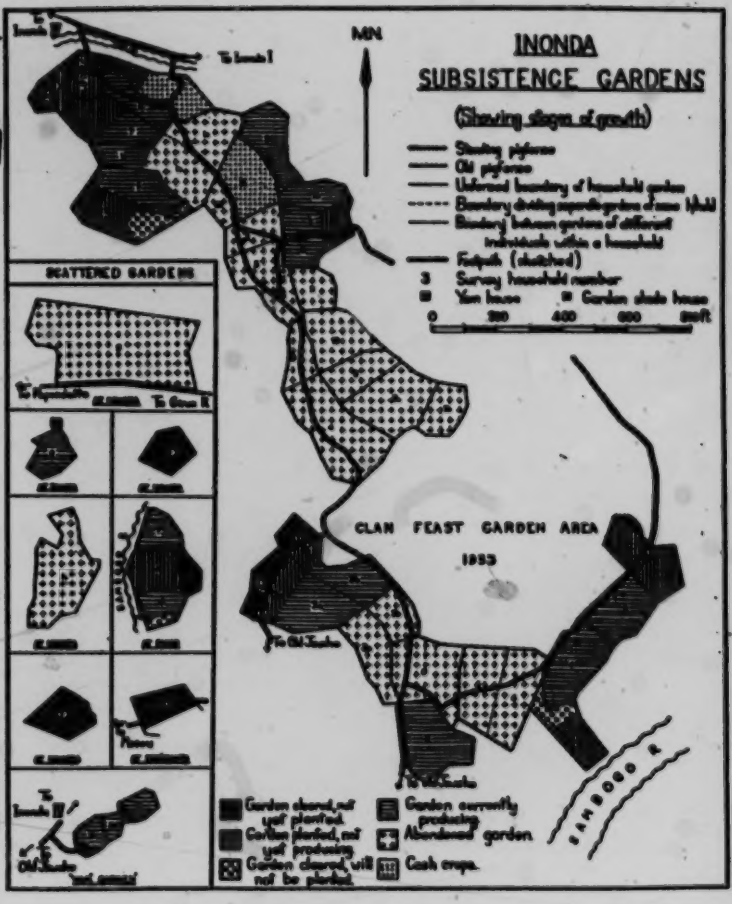
Land registration

657 423 In the first year of the council's operation the Native Affairs officer who was responsible for supervising council affairs initiated a system of registering with the council all lands [241] which were being used for cash crops. In practice, persons wishing to plant cash crops under the scheme applied to the supervising officer, who thereafter made a chain and compass survey of the land concerned, in the presence of the elders of the landholding clan. The councillor for the area also attended. A written declaration was made and witnessed by the clan elders, the local councillor, the applicant and the Native Affairs officer. The declaration allotted the land to the applicant and stated that he could thereafter transfer it or nominate heirs to it, without further reference to the clan or other group. The land described in the declaration was then entered in a register by the council clerk.

During 1957 after about 150 blocks had been registered, the acting District Commissioner ordered that the scheme be stopped on the ground, it is said, that it did not conform to traditional practice. No statement of policy was issued, but no further registrations were made for nearly three [241] years. The people were uncertain of the status of the registrations which had already been made but coffee planting continued throughout. In fact, the man who was then District Agricultural Officer considers that there was more planting during 1957-60 than either before or since.

It is understood that the main issues at stake were (a) whether the scheme constituted a modification to custom or

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda



14: Crocombe & Hogbin E-S (no date) 1963 QJ23 Orokaiva QJ23
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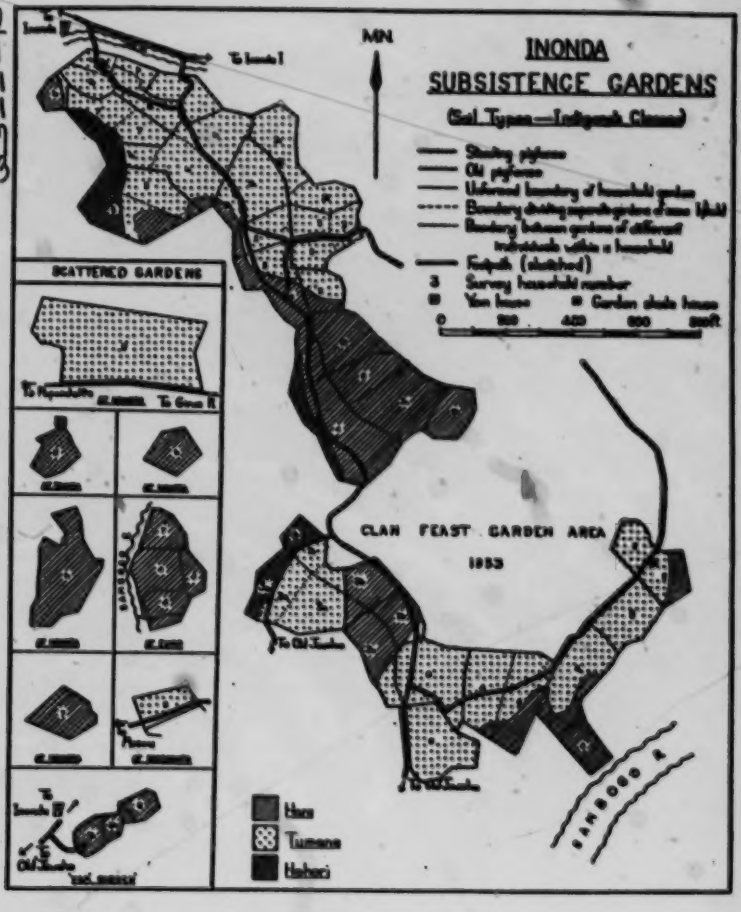

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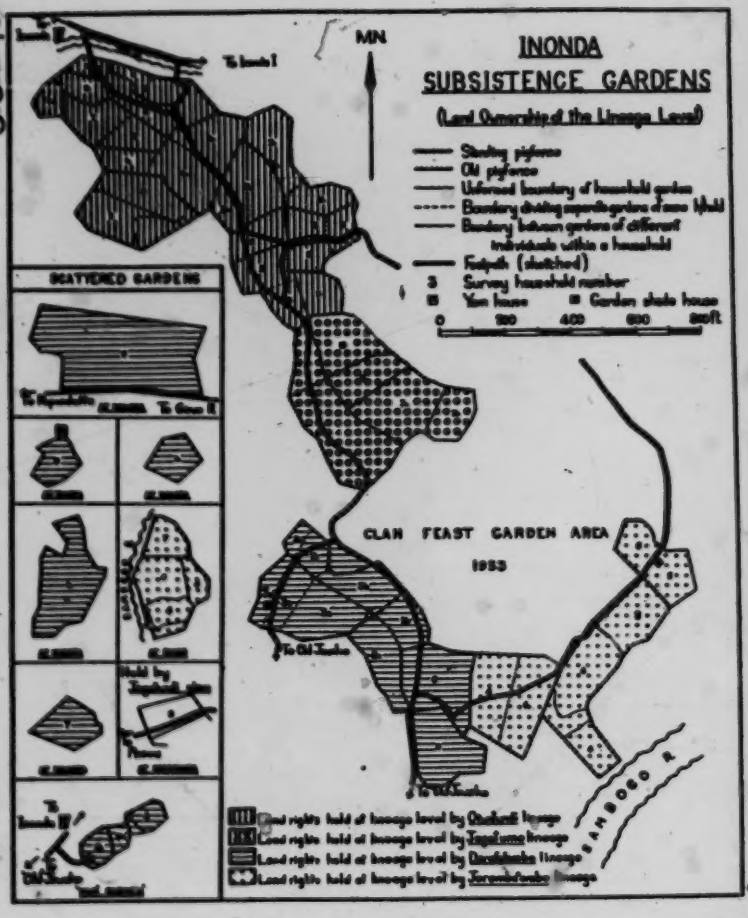

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda

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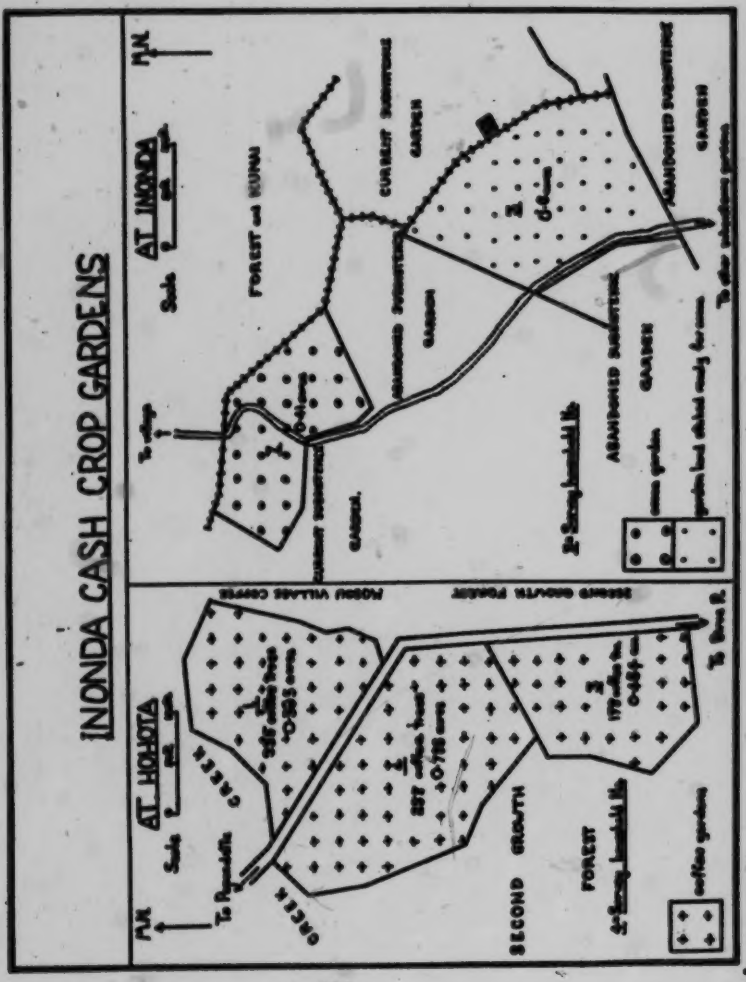

472 marketing or the more intricate techniques of production. It does
554 suggest, however, that they have a sufficiently clear conception
153 of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 Most Orokaiva men established their cash crops on customary
423 land to which they have acquired rights by inheritance from their
[428] fathers. None of the entrepreneurs did so, though all claim that
[472] they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 A had cleared bush land and planted coffee at Garara where his
423 close kin had been permitted to resettle in the late 1920s. Though
472 the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for re-
[656] gistration of his land under the Land (Tenure Conversion) Ordinance 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of
[656] his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his
[432] cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6)[A] they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda
[361] is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

241 Later again, in line with an agricultural officer's recommendation,
428 he encouraged each son to plant individually. He proposes that his
592 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
241 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23 Ombi-Tara

Chapter 1

Introductory

657 654 241 The first legislation aimed at encouraging Papuans to engage in cash cropping was introduced in 1894 by Lieutenant-Governor MacGregor six years after the beginning of the British administration in Papua. Nevertheless, policy was mainly directed towards the promotion of European enterprise until after the 1914-18 war, when the difficulty of attracting European settlers to Papua caused a shift towards promotion of indigenous agricultural development.[1] At first communal cash crop gardens were promoted but as the disadvantages of this system became known,[2] emphasis shifted to encouraging each family to cultivate an area of cash crops separately. Cheetham (1962:68) states that this policy was clearly established by 1956.

657 423 An ad hoc committee was established in November 1956 to consider the conversion of land from customary tenure to individual freehold title.[3] The committee submitted its report in 1957 and there followed a period of research and discussion, culminating in the policy statement on land tenure in the House of Representatives on 7 April 1960 in which the Minister said:

> (1) The ultimate objective was to introduce a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
>
> (2) Only the central Government...may issue and register land titles.

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[1] On the history of official policy on agricultural development see Crocombe 1964a.

[2] See Crocombe 1964a:33-7.

[3] Land under 'customary tenure' includes 97 per cent of the total area of Papua-New Guinea. The Administration has purchased 2.5 per cent of the total area, and non-indigenes have freehold title over 0.5 per cent.

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepa by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were
[621] large, probably because clan members clustered together for mutual protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

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[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

654 Planting of cash crops on converted blocks has proceeded steadily.
657 The forty blockholders at Ombi-Tara planted an average of three
311 acres of high-yielding rubber each in the first fourteen months.
241 At Barisari fifty-six blockholders have planted an average of two acres of coconuts in fourteen months and this was expected to increase to four acres by the end of 1966 (Williams 1966:6). Blockholders at New Warisota have planted an average of three acres of cocoa after eighteen months. By contrast, fifty-seven farmers at the Yega scheme have averaged slightly less than one acre of cocoa planted in more than three years.

654 A rough attempt was made to estimate the value of the time,
657 materials and services expended on the conversion schemes in the Popondetta area.[1] This worked out at approximately $8 per acre[A] or $162 per block.[B] This suggests that the growth of conversion throughout Papua-New Guinea on a sufficient scale to have a significant economic and social impact will depend, inter alia, on the development, with experience, of less costly technical and administrative procedures.

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1 See Appendix A.[C]

A [Corrigendum: For $8 read $6--Analyst]
B [Corrigendum: For $162 read $116--Analyst]
C [See Category 423, pp. 38ff.--Analyst]

Chapter 3

Motivations and expectations of the Ombi-Tara people

Desire for improved standards of living

185 177 The Ombi-Tara people aspire to what they consider to be a European way of life. They consider that by planting a new crop, rubber, under a new land system they may be able at last to realise their aspirations. The first response of 90 per cent of the block-holders interviewed to the question 'Why did you get a block?' was 'to get money'.[1]

In any formal or informal discussion concerning the reasons for wanting to grow cash crops or for being in favour of tenure conversion, the same points were mentioned repeatedly - the desire for a European house with an iron roof, clothing and food from the store. Some more ambitious men suggested that they hoped to establish trade stores or workshops, to buy vehicles, or less specifically, 'to start a business like Europeans'.[2] At least 20 per cent of the villagers appear to consider the change from planting cocoa, coffee or food crops to planting rubber to be as significant as the innovation of conversion.[3] The villagers hope that rubber will produce substantially greater returns than they were receiving from their cocoa plantations.[4]

[241]

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[1] The methods of obtaining information are described on pp.1-2. A

[2] These replies tend to support Epstein's finding (1965:191) in New Britain that villagers often wish to copy not only European consumption patterns but European productive activities as well.

[3] Most people had had some prior experience with rubber, either through the Ombi-Tara bush rubber stands or the Sangara rubber plantations, but few had planted rubber as a cash crop.

[4] As Brookfield has pointed out (1958:24): 'It is quite wrong to suppose that the economic factor can be disregarded in native development. Native toleration of low returns is greater only in degree than that of established European plantations.'
A [See Category 128--Analyst]

Security of tenure

423 It is often suggested that the main benefit from tenure conver-
241 sion is the provision of security of tenure for villagers who wish
[182] to plant cash crops. The Ombi-Tara people, however, did not con-
[829] sider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocos and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds.
[578] Fourteen people did mention that conversion and the introduction of cement and wooden corner pegs would help to prevent disputes; but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 Most Ombi-Tara people saw consolidation of their previously
311 scattered holdings as the main benefit from tenure conversion.[2]
361 Many people drew finger diagrams on the ground to explain how
[829] conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 423 182 [361] Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] [464] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

productivity. Consolidation of an individual's scattered plots reduces the amount of time devoted to travelling and increases the acreage which can be planted with cash crops in any one location. The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

Consolidation has facilitated the provision of assistance by Department of Agriculture staff, increasing the effectiveness of officers. Planting, pest control and general crop maintenance can be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

Tenure conversion appears likely to enable economies of scale when the rubber trees come into production, hence increasing the productivity of village labour. Economies may be gained in processing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was 433 self-sufficiency. Traditionally, the people of New Guinea were subsistence cultivators planting 241 their food crops in small clearings in the [226] forests and supplements this food supply by [224] fishing, by hunting the animals which live in [222] the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements [412] were available: stone axes with which trees [392] could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 241 concept of saving and no profit motive, tended 171 to be resistant to change; innovation was un- [412] necessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

P.1-A

433 were introduced. The use of these tools has
241 greatly lightened the work of the New Guinea
173 gardener and substantially reduced the time
412 needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 The introduction of new tools has not, how-
242 ever, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land
241 use, which can best be described as one of
242 shifting-field agriculture, the average land re-
311 quirement is a quarter of an acre per head per (P.1-B)

241 yea[illegible]. Thus, over a ten-year land-rotation cycle,
242 approximately two and a half acres of land are
317 required to support one person.

241 The major change that has occurred in New
433 Guinea agriculture with the coming of white
177 men has been the introduction of cash crops.
[437] When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services ren-602 dered, the villager obtains the assistance of his 464 relatives for heavy work such as the felling of 476 big trees to make a swidden, dragging a canoe log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

657 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, [578] by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

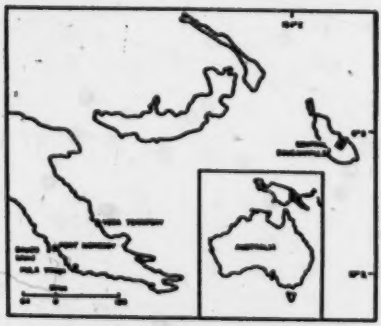

Fig. 1. Location of the three case studies

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with them. These affinal kinsmen thus acquired [428] cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head co-ordinates the work of members of the lineages

[P.17-A]

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

(P.7-B) TEXT CONTINUED ON PAGE 8-B)

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

226 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 423 514 the Yega to exist off their strip of coast; rights to fish over these reefs are held by the clans whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowadays [199] is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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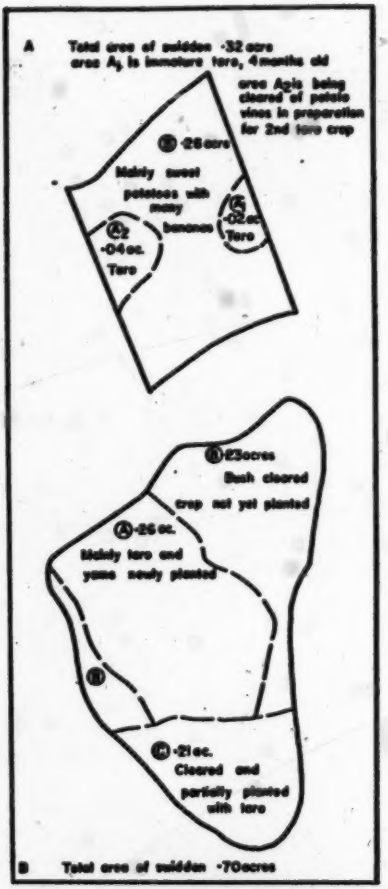

Fig. 5. Examples of Yega swiddens, illustrating the method of maintaining continuity of food supply

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242 obviously play an important part in the selection of a swidden site.

[P.9-A]

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Fig. 6. *A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high*

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

[224]
[825]

241 c) *Division of labour.* Most garden work is performed by both men and women, but cutting large trees is men's work only, and harvesting is performed by women only. Incidentally, the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

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[482]

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

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[P.9-B]

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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

and Samarai. They were away from home for two years at a time and were not accompanied by their wives and children. Since the war they have not returned to indentured labour but have tried other ways of earning money.

The first such experiment was an agricultural co-operative, originated by a returned soldier who got the idea from one of his wartime Australian friends. Anglican Missionaries sponsored and directed the scheme and some money was made from cash crops of sweet potatoes, peanuts, and rice. However, when the money was shared amongst all those participating, it was a very small return for the amount of work and there was widespread dissatisfaction. The scheme was finally doomed to failure by two events—the permanent return to Australia of the mission organiser in January 1950, and the death of the Yega leader in the Mt Lamington volcanic eruption in

[P.14-B]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1955, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

[121] these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

[132] The temperature varies between 70° and 90°F. throughout the year, both in Sivepa and Inonda. The Inonda people think that the nights at Sivepa (and on the mountain generally) are rather cold and it is true that in Inonda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [121] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [169] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inonda rainfall is somewhat below that of Popondetta; Sivepa rainfall is significantly higher than at Awala. Thus Inonda usually gets 80 to 90 inches of rain per year while Sivepa gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [121] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepa; in May-September at Popondetta and Inonda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

In October the heaviest rains begin and this is the period [132] when crops grow fastest. Thus the crops planted during the dry [241] period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

241 Food must be planted at most periods of the year as most
221 Orokaiva crops cannot be stored, but there is a difference according to the purpose of the plantings. Seed planted outside the optimal period can be grown for no purpose except subsistence; plantings made in the optimal period may be in preparation for feasts. Their purpose is not only subsistence but also abundance. The Orokaiva calendar contains a specific feasting season which immediately precedes the "planting" season. Taro planted between July and September reaches maturity between April and June. This is the season of feasts and abundance.

241 A distinction must be made between the ideological and the
221 statistical work calendar. The latter has been set out here from
924 data collected by Waddell (n.d.) in Sivepe and shows that at no period agricultural activities are confined to one particular phase of the work, such as planting or weeding or cultivating or harvesting. There are, however, clear fluctuations showing an emphasis on planting during certain periods and on harvesting, etc. during other periods (Table 5).[A] The ideological calendar, as given to us by informants, both in Sivepe and Hohorita, distinguishes seven phases related to the annual cycle of three forest trees. The calendar noted by Crocombe in Inonda (1963: 6) though more summary, follows the same principle, while differing in some minor details.

1. When the garepa flowers, the taro should be ready to harvest. (The reference is, as in this whole calendar, to the main taro harvest.) But this flowering has several phases: the flowers are first white, later yellow, finally bloodred. When some of them are bloodred, the taro is "really" ready. This is the time when small feasts are given for the owner of the land, but not yet big feasts, for it is only the first of the crop that are really ready.
2. When all the garepa flowers are bloodred, feasting time has really started. This is, in the Mount Lamington area, around Easter time.
3. Another sure sign of the approach of the feasting season is the ripening of the tauga nut (called hauga in the Sangara dialect). While garepa is watched during the time of shortage before the main harvest, tauga is watched during the time of plenty. The nuts are plentiful, delicious and rich in first-class protein.
4. At the end of May, about two months after the beginning of the feasting season, white flowers appear on the barambu tree. This is a sign that the seeds should now quickly be planted in the land. The dry period is beginning; the period when clearing and burning can be done with the least loss of fertility. As these flowers appear, feasts will still be in progress in the villages, but the old men will begin to make moralistic speeches that feasting should now be over and people should return to garden work.
5. Soon after this, perhaps a month later, the leaves of the tauga begin to fall; it is good if by that time a good deal of

A [See Cat. 116, pp. 209-210--Analyst]

241 planting is already completed for when the old people see the
221 tauga leaves drop over the newly planted gardens they say that the
824 taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

[132] 6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

[789] 7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

241 We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepe over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

805 In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that [439] of the European economy, notably monthly coffee sales from June to [651] December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

121 In this section I shall specifically describe the differences in topography between Sivepe and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

133 Sivepa lies on an altitude of 1,300 feet, seven miles from
Mount Lamington. Although the mountain rises to a height of 5,634
[361] feet, most present settlements are on the lower slopes, rarely very
much higher than Sivepa. A wide range of annual and perennial
[241] crops, including taro, on which the Orokaiva depend, do not grow
[731] well at altitudes much above 1,500 feet. Thus, the eruption has
had no appreciable permanent influence on the location of village
[361] sites. The restricted area is at present a circle of two miles'
radius from the crater of Mount Lamington; there are not now, nor
were there before the eruption, permanent settlements closer than
four miles from the crater.

The Sivepa terrain (if I may borrow the terminology of the CSIRO report) is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepa (see Map III)[A] is on a soil association of the Ayula
land system which has an 8 to 12 inch very dark brown topsoil.
Chemical tests suggest that these loams are fertile, rich in
nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil
type, which the Orokaiva call mume (a word whose principal meaning
is night, darkness), is only one of five found in the district and
distinguished by Orokaiva by colour, texture and moisture. The
others are hohori (red), which is popular for cultivation if it is
not sandy; gindiri (stony, with high sand fraction); puau (clay)
and pagara (swamp). Mume is the most widely used soil for gardens.

133 In contrast, Inonda (see Map IV)[B] is no more than 200 to
300 feet above sea level. It lies partly (to draw on the CSIRO
report again) on the flood plains of the Girua and Sambogo rivers
and partly in the moderately sloping foothills of the northern
side of the extinct strato-volcanic Hydrographers Range. The
Sambogo and Girua Rivers flow in a northerly direction draining
from the Hydrographers Range and Mount Lamington respectively.
They are swiftly flowing, rocky-bedded rivers which, together with
their numerous tributaries, give the area a moderate to good
drainage system. To the east the drainage system in the vicinity
of the Embi Lakes has been blocked by recent volcanic activity and
drainage is much poorer. A vast coastal plain between 20 and 30
miles wide stretches north-westwards from the Hydrographers for
over 60 miles. Inonda lies at the southern end of this plain,
about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of
five soil associations listed in the CSIRO survey: (i) the
Popondetta Association, with black to very dark topsoil underlain
by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

134 the mune of Sivepa, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called tumene is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the hydrographers foothills. They are grey to grey brown, and are called hora or heberi. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepa. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepa, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepa is not at all untypical for the Saiho Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepa population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jegase and Tisumu clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepa clan (Saho) has greater land resources, and that the Saho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Sova Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 560 acres may be classed as good garden land, whereas the present level of subsistance gardening can be maintained with 127 acres (1963: 10).

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens, 241 these seemed to be predominantly in the Northeastern part of the 311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepo is again in that area.

731 Inonda experienced three shifts since the eruption: first 361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses 659 close together and little space between the rows--both post-eruption settlements of Sivepo and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend [364] to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [575] which the Americans laid down during the war. Sivepo got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including [591] Sivepo, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepo villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing 657 standards, village sanitation and roads. We find Wilfred Beaver, 364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepe were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organized. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[295] were deprived of many of their choicest feathers at a time when
[411] headdresses had to be refurbished for dancing or spears decorated.
[599] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
Sivepe killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

There is a great shortage of both pigs and fowls for these
438 ceremonial occasions. Pigs are bought for high prices ($20 to
439 $30)--from neighboring villages and even, as Crocombe and Hogbin
say, from European planters. Fowls tend to be made available on
[435] big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield
241 economic products, those plants which are native to the district
311 and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepe sample and as shown by Crocombe and
Hogbin for Inonda (Table 7).[A] The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepe. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepe acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepe there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepe family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepe	Inonda
Coconut	Sago
Breadfruit (oga and eumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepe, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack
276 of betelnuts is felt very strongly, as the Inonda people are as
438 fond of chewing it as other Orokaiva. Hence, it is usually obtained A [See Cat. 116, p. 213--Analyst]

276 439 from relatives who live in the mountain districts or else obtained by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants 245 are also used as building material. As the supply of sago is very [262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[799] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small [287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pemba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

241 177 The three introduced cash crops of significance in the two villages have been rice (pre-eruption), coffee and rubber; in both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these [243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepe were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers
[431] in his population sample of 50, who together earned $70 in one year.
[431] When I began my field work, the tapping had ceased as the factory
[431] was no longer buying indigenously grown rubber, but a rubber
[431] cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepe. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepe and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established, four and one-half acres in size, on which theoretically seven men were to establish rubber stands. The Malayan trees were planted here, as well as self-sown trees from the other plots which were dug up and replanted. These plantings occurred shortly after Rimoldi left. If the new cooperative venture succeeds, it is likely that the new plot--most of which still remains unplanted--will be exploited, but people were clearly waiting to see whether sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the
setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepe were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepe, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepe, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
[431] since the 1964 census. The number of growers has increased from
five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
$50 and $100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepe coffee
was collected and promptly paid for in Garombi village, about 15
minutes' walk from Sivepe. I did not take another coffee census

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
6 241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepa has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleckham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleckham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleckham had a huller and was willing to hull rice for growers" consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wreeta and each man took his own rice back home, giving a

474 share to the owner of the land. This activity started some time after
197 1947 and ceased with the eruption of Mount Lamington. It involved
241 "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepa, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 The pattern of production of the Sivepa rice resembles that
241 of the communal yam gardens. There also, several men may plant
[427] together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of [829] the Europeans. It would be unfair to say, with Kluckhohn, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 Today, Sivepa has three forms of economic organisation. The
[596] dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

471 well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the Australian government's insistence on the planting of village quota's
● 241 of rubber and coconut. Here, as I explained, an undivided area was
621 planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called tane. This is common procedure also when subsistence crops are planted.
427 Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepa (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepa for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

479 In the neighbouring village of Sasembata, where a rubber cooper-
245 ative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepa men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

479 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

731 242 The opportunity offered by the evacuation camps was also taken to introduce a few innovations which, it was thought, would improve subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepe or Inonda. I myself had brought a spade for the garden I established in Sivepe, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

731 134 Keesing reports there were fears in the camp that the eruption would have destroyed taro seed stock, but this fear proved unfounded. The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

731 657 Issue of Food: In the camps, rice, tinned meat, tobacco were distributed according to a ration scheme based on the census figures. Each village constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is
whether earlier students of societies depending on shifting agriculture
are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what
potential labour surplus there might once have been has already been
taken up by labour migration of male adults (which, for his sample, he
puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines
economic activity as comprising only the production of food, clothing
and shelter, and argues that, given the existing socio-economic matrix,
all the other activities listed on his time charts (see Table 5) A A
should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands
has resulted in a saving of two-thirds in the time allocated to specified
axe-using tasks and who concludes from this that a vast potential labour
surplus is thus created. Waddell shows, by a quantitative study of
the allocation of time within activities, that only 38.5% of the time
allocated to an activity is actually given over to the main task, and
even if one includes ancilliear, and other productive tasks, this
raises the proportion to less than 50% of the total time devoted to
that activity. (See Table 17.) B As steel implements are used for only
a portion of productive tasks, they did not, Waddell argues, make a
crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
in an excellent position to discover this as at the time of his survey
241 seven of 15 households surveyed engaged in cash-cropping; he was therefore
able to inquire how this affected the time spent on subsistence food
production. As it happened, the median time spent on subsistence
gardening by the whole sample equalled precisely the median time
spent by the cash-cropping households. (12.6 hours per week, vide
his Table 5:5) It appears from the table I derived from Mr. Waddell
(my Table 17) how the cash-cropping families fit in this extra work:
they spend a great deal less time having rests and meals. While non-
cash croppers allocate only 28.4% of the time within activities to
their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell
gives interesting explanations which account for part of this discrepancy,
even if full allowance is made for these, the fact remains uncontestably
that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This
seems to suggest a considerable heterogeneity in working habits as
between the members of the community. The author clearly shows this
heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepa never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepa today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepa did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
●241 for entirely different motivations.

The question is an interesting one, but Sivepe does not
114 provide a clinching counter-instance. Mr. Waddell's sample was taken
[489] entirely from the Jegase and Timunu clans, while he did not collect
[423] data on travelling time from the Seho clan. Now it is the latter clan which owns most of the land around New Sivepe, so that their travelling time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timunu) now have gardens very close to New Sivepe. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepe. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19). Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both men and women are repositories of capacities and resources specific to themselves; the relationship between men and women is the giving of exchange (wine ari) of the contributions of each. Men views women as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The
main differentiation noted by earlier authors was that between cash-
croppers and those engaging only in subsistence gardening. How in this
respect there was no noticeable difference between clans in Sivepe:
out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to
Jegase and Timunu and the rest to Seho, while in Inonda the coffee
growers belonged to two Andiriha lineages. In Sivepe today most men
grow coffee, and this applies equally to the Jegase, Seho and Sorovi
clans; the exceptions are elderly people. There are, however, very
significant differences in other respects between socio-economic
patterns in the Jegase and Seho clans--differences which are obvious
even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are
[535] predominantly in the 35-45 year age group whereas Seho is predominantly
[177] a little older (45-55 years). Hence the dance group formed in Sivepe
[871] is at present almost wholly composed of men of the Jegase clan. The
[167] age difference happens to be very significant in various indices of
[191] acculturation, as the first school was established at Sasembata in
1945, and the custom of looking for wage labour outside the district
did not become widespread until about the same time. While some Jegase
people know some English, none of the Seho people over 35 speak any
at all. Furthermore, the first village constable and the first councillor
in Sivepe were both Jegase men who had taken up employment well before
the second world war. During the years they held these posts (1939-
1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more
occupational experience. This experience, for both clans, did not
include work requiring much formal training; it was labour on rubber
and cocos plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless,
an intelligent man thrown into these kinds of situation can find out
a good deal about the outside world; in later dealings with external
agencies, he is able to make more informed judgments. A further
opportunity for such experience was offered the Jegase clan when the
Australian National University, which made Sivepe into a sample village
for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

TABLE 7

FOOD PLANTS PER HOUSEHOLD:
INONDA AND SIVEPE COMPARED

Sources: Crocombe and Hogbin, 1963: 8; Rimoldi, 1966: 17

Crop	Inonda		Sivepe	
	Average	Range	Average	Range
Taro (Colocasia sp.)	1.3 acs.	2.6 - 0.4 acs.	0.97 acs.	0.39 - 2.30 acs.
Sweet Potato	0.2 acs.	0.4 - 0 acs.	0.07 acs.	0 - 0.20 acs.
Corn	72 plants	140 - 0 plants	223 plants	0 - 442 plants
Bananas	81 trees	145 - 12 trees	71 trees	35 - 126 trees
Pitpit (ins)	56 clumps	181 - 4 clumps	88 clumps	0 - 400 clumps
Sugar	71 clumps	167 - 34 clumps	34 stools	11-54 stools
Yams	24 vines	61 - 0 vines	65 vines	0 - 136 vines
Manioc	10 plants	27 - 4 plants	a few	
Taro (Xantosoma sp.)	5 plants	25 - 0 plants	28 plants	0 - 91 plants
Native Cabbage	---	---	22 plants	0 - 100 plants
Pawpaw	---	---	17 trees	5 - 32 trees
Beans	a few		17 plants	0 - 110 plants
Cucurbits	2 vines	10 - 0 vines	13 vines	9 - 28 vines
Saallots	a few		a few	
Ginger	---	---	a few	
Tobacco	---	---	18 plants	0 - 59 plants
Pineapples	1 plant	7 - 0 plants	no data	
Tomatoes	a few	---	no data	

241
311

These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Orokaiva worked their hamlets and gardens high up on the rich soil of its sprawling flanks, achieving perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higaturu.

The first eruption came on a Sunday morning after three anxious days of earth tremors during which official and Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good

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2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

133 eruptions has subsequently continued, and reports as of De-
731 cember, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

731 An observer passing through or flying over destroyed areas
24 was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organized to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

731 Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. Those groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

731 By that time, too, a whole series of policy problems had
657 arisen which both the field staffs and the Australian authori-
177 ties at Canberra and Port Moresby were trying to resolve.
[361] Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 39-43 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely 621 more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are [614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The 592 generally monogamous family units are under the "immediate 621 authority of the father," while the affairs of the local living 622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, 422 usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in [154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually [562] hostile and resistant to whites. Women were often seen ac- [786] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that [628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were [728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes 361 as the result of a "quarrel and the fear of retaliatory magic," 241 but more often it was "simply the lax method of horticulture [578] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." 361 Another factor could have been food scarcities which tend 261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow 731 zone, and people may have to scatter out to live on wild 165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica- 178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly [449] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village 361 type also occurred, particularly as a result of Mission influ- 571 ence. Over against this greater dispersal, the people have

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Pallau movement in Manus, the Yali cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manseren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 122-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Pallau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[799] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

731 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p.22-B]

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study[2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

461 When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure* [805] *gatha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper).

● [241] Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much [829] individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls [581] are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

241 One could keep on with such description for a long time with-773 out coming closer to defining garden work as a concept. Myths 824 and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Time is therefore a highly inappropriate measure of useful activity in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

A great man, or a manager, is not always a gardener. He may be a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not dark like that of Hesiod or of Adam's curse. An Orokaiva informant once recorded for me on tape his version of the relevant portion of Genesis:

> "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.
>
> He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."
>
> Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . ."

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [825] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

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When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Genesis of the Yega Scheme

The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was reopened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Sesako clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead,
[439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to
[435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Picking	Pods*	Net wt. lbs.	Amount received $	Picking	Pods*	Net wt. lbs.	Amount received $
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Dewhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).
**Bapa man, not member of Yega Scheme.

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Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

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Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

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Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

Work patterns

Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A, [For Table 5, see Category 166, p.43--Analyst]

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[614] The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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461 Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

[434] The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

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162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

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245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

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166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed
(423) hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). A Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6). B

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

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[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

(i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

(iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

(continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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[423] (iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

[433] (ii) the production of crops for sale;

[242] (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

[361] (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

'paddy' to food, prevented the conversion of the food to cash,[1] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

Rice continued to be grown for about a year after Rev. Clint's departure; small quantities were sold by the cupful but the income received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

A subsequent co-operative, organized by the Administration and known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½d. to 4d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

agreement was drafted and adopted. It reads as follows:

"Agreement to the right of land use.... It has been agreed by the people of [name] clan (or village) and all other interested parties that [applicant's name] has had allocated to him by native custom for his use alone the land marked on the attached plan, and that no other person has a claim to the land. It is also agreed that any coffee trees planted by [the applicant] on the land are his sole property and no other person has claim over them."

The form is dated, signed by the allottee and by "the clan leaders" (in practice it is usual for all resident adult males in the "owning" clan or sub-clan to sign), and by the local councillor. It is witnessed by an officer of the Department of Native Affairs. A map of the land is attached to the form. Forms and maps are prepared in triplicate and one set was to be held by the applicant, one by the council, and one by the District Office in Popondetta. In practice, the council copy is also held by District Office.

Registration under this new rule commenced in 1960, and surveying and registration of plots have continued to the present time. At 1st January, 1963, 588 plots covering 1,120 acres had been registered. A further 1,029 applications for registration had been made but not yet dealt with. Although it was originally intended that no plot would be registered if it was less than two and a half acres in area, many smaller plots have in fact been dealt with and the registered plots at Inonda village measure 1.4, 2.6 and 1.6 acres respectively (though these areas have not yet been fully planted). Some areas of under one acre have been registered. Wherever possible, villagers are encouraged to allocate blocks contiguously, not only to facilitate surveying and identification of land, but also to reduce the extent of border clearing necessary, and to facilitate pest control and extension services.

Provisions for ensuring higher standards of husbandry and output are contained in Rule No.3 of 1959 which requires that persons with cash crops must:

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"(a) ... keep the land clear of all rubbish

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer....."

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

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The question of inheritance of rights to land registered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

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The aim of the registration scheme is to promote the planting of cash crops on individual plots with some security of

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

245 Individual planting of cocoa was tried next, with twenty-one
[435] people planting between 20 and 1,300 trees each. The average plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 An Ombi man named Charles was instrumental in persuading the
464 people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility
245 of establishing a tenure conversion scheme at Ombi-Tara. He planted
249 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 Conversion at Ombi-Tara began with a visit by a resourceful
249 Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

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[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
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657 productivity. Consolidation of an individual's scattered plots
423 reduces the amount of time devoted to travelling and increases the
182 acreage which can be planted with cash crops in any one location.
241 The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

657 Consolidation has facilitated the provision of assistance by
423 Department of Agriculture staff, increasing the effectiveness of
182 officers. Planting, pest control and general crop maintenance can
242 be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

657 Tenure conversion appears likely to enable economies of scale
423 when the rubber trees come into production, hence increasing the
182 productivity of village labour. Economies may be gained in pro-
433 cessing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

433 were introduced. The use of these tools has
241 greatly lightened the work of the New Guinea
172 gardener and substantially reduced the time
412 needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 The introduction of new tools has not, how-
242 ever, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land
241 use, which can best be described as one of
242 shifting-field agriculture, the average land re-
311 quirement is a quarter of an acre per head per (P.1-B)

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year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

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The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

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Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A]

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

226 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 the Yega to exist off their strip of coast; rights 423 to fish over these reefs are held by the clans 614 whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many [177] different methods but the commonest nowadays is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P·8-B]

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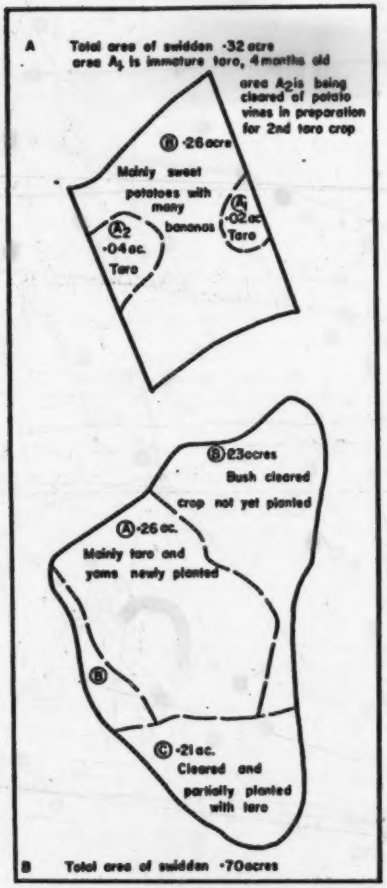

Fig. 5. Examples of Yega swiddens, illustrating the method of maintaining continuity of food supply

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obviously play an important part in the selection of a swidden site.
[P.9-A]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

individual villagers. The houses were built on a standard pattern, not, as might be thought, to act as warehouses or storehouses or as offices, but as eating places for the co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timbeki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garoubi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garoubi, but was non-committal over the other two, as he saw Isoge and Binduta were [276] insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages. [191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Koru), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

177 the people. He was the only white man in the district (omitting the anthropologists) who actually did this. Finally, some people [464] of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

The only taupa residents in the district were the head [875] teacher and his wife; they had daily personal contact with village [439] people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepe men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepe men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

657 Characteristically, contact between the taupa and villagers
177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to
[242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

Section 2: Economic Assistance

177 Subsistence: Undoubtedly, European contact had a profound influence
433 on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence
731 economy broke down seriously in the post-contact period was immediately
657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This
[241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken
731 to introduce a few innovations which, it was thought, would improve
242 subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of
[412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepe or Inonda. I myself had brought a spade for the garden I established in Sivepe, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed
[227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption
731 would have destroyed taro seed stock, but this fear proved unfounded.
134 The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed
731 according to a ration scheme based on the census figures. Each village
657 constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

731 657 the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

452 657 Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepe and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

245 652 The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself 245 purchase coffee but when the Higaturu Local Government Council was 474 formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later [651] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold [439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepe coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

654 242 The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

654 and local field trials are being carried out on the volcanic soils of the Northern District.

242 Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural 242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve [874] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The 435 violent fluctuations in price for this product do have a somewhat unsettling effect on growers, though I could not observe very much of 245 this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu 657 Council to deal with. I have already mentioned that government officers 423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were 653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.) Thus, a sizeable area of local development had become

A (See Cat. 116, p. 217--Analyst)

755 medicine, though by no means always. Bandages were especially popular;
752 they were worn as status symbols and as dancing ornaments. Nurses and
554 physicians are regarded with affection; any person who obviously wants
753 to be helpful would be treated thus, and it has of course been noticed
that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

731 Data on the eruption period do not suggest that the attitude
743 to medicine was different then to what it is today. There were,
however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a
public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
about such innovations. Finally, the introduction of sweet potatoes
[242] at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepa, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepa was the health
inspector employed by the Higaturu Council. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Garoubi and he had many relatives
in Sivepa, he made frequent visits. Sivepa caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a lavatory and the place was kept clean in the prescribed way. On

731 liberately endeavored to keep everyone busy, and the men
657 spent much of the time in work gangs (e.g. Monday, Tues-
361 day and Wednesday were usually devoted to house-building;
179 Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

731 2. Reasonable law and order was being maintained in the
659 new settlements, under the eye of a considerable force of
578 the Papuan Constabulary sent in for the emergency. Oppo-
625 nents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

731 3. Not least among the uncertain factors is that of sorcery.
754 According to those who manage the settlements, fear of
514 coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

731 4. On the economic side, no sound basis seems in sight
361 for establishing large permanent communities in the com-
241 prehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more
● [242] intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As
731 in socio-political affairs, the responsible organization and
657 leadership would in general have to be provided from out-
[241] side, with the dependence relationship that this implies.
[179] Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp.
731 In large settlements the technique of handling domestic pigs
231 and chickens, vital sources of protein, is always a difficult

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to
473 tubers, especially taro. The Australian authorities had hardly established themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4

This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

guarantee success. The transaction between man and his garden must be mediated by the holding of a feast that will dispel noxious influences by which sorcerers have, in the past, spoilt a man's garden. After the feast, the garden will produce abundantly, but this abundance will not last. In fact, the resumption of social relations will lead naturally to hostility; again sorcery will spoil the harvest. Sorcery mediates between man and his garden to impel the gardener to make a new feast garden; thus the cycle is repeated.

This model (No. 4) expresses a point to which my Orokaiva informants returned time and again. The most important benefit an Orokaiva expects to get out of a feast is not improved social relations but a better taro harvest. The rituals of repentance and forgiveness which entered into models 1 and 3 are magical performances with improvement of the harvest as their ultimate purpose. Thus it is wise not to restrict our study of exchange to the social and economic levels only, because the basic transaction may occur on a quite different level, in this case between man and his garden. The method of analysis I am proposing here has the advantage that it moves with equal ease on all levels at which collective representations exist.

4. *The Starting Mechanism*

In this chapter I first sketched Orokaiva social philosophy; I then abstracted some simple diagrams to represent this philosophy. Some elements of the exchange cycles represented by these diagrams are found in all or most cultures. All cultures have transactions between hosts and guests; all agricultural societies have transactions between man and his garden. Exchanges of social objects such as repentance/forgiveness, labour/abundance arise out of universal tendencies of man or nature. There is, however, nothing universal or logically necessary in the particular mediating elements appearing in these diagrams. Meat and taro, good and bad magic, *peka* and *isoro* – these are all peculiarly Orokaiva means for the mediation of social exchange. When Homans and Blau developed their (sociological) theory of social exchange, they gave no systematic attention to mediating elements, and rightly so, because their interest was universal laws, and mediating elements are never universal. However, for the anthropologist, who usually treats cultures as a significant variable, the mediating elements are of special importance.

Nonetheless, even if particular mediating elements are not universal, the use of mediating elements is a universal characteristic of social exchange. Sociologists, by ignoring this fact, have occasionally found themselves in difficulties, as for instance in their discussions about the 'starting mechanism' of social exchange. Gouldner posed the problem clearly in his essay on 'The Norm of Reciprocity' (1960: 177):

> Let us suppose two people or groups, Ego and Alter, each possesses valuables sought by the other. Suppose further that each feels that the only motive the other has to conduct an exchange is the anticipated gratification it will bring. . . . At least since Hobbes, it has been recognised that under such circumstances each is likely to regard the impending exchange as dangerous and to view the other with some suspicion. . . . Thus the exchange may be

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture. 657 241

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with. 248 245 [249] [243]

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres. 245

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60 245 466 [651]

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

Community rice and cocoa projects

797 In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally 474 linked to the mission.(1) The main activity of the co-operatives [241] was the growing of rice, but some grew subsistence foods also, [258] and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

621 In most instances the village worked as the unit of production, but in some cases several neighbouring villages [243] worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

461 In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol re- 794 ports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all re- 797 spects to that of Europeans". Orokaiva people have pointed 461 out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only .... 241 [465] [243]

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee. [249]

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away .... 245 [625] [133]

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognise that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income received would have been negligible. In 1951 the crop was attacked
[242] by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[659] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was
[654] provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

● 243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

276 439 from relatives who live in the mountain districts or else obtained by barter, or bought from other villages or at the Popondetta market.

245 [262] Sago is made and eaten when other crops fail, but the plants are also used as building material. As the supply of sago is very limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[199] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

[287] The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

241 177 The three introduced cash crops of significance in the two villages have been rice (pre-eruption), coffee and rubber; in both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these relationships are analysed. [243] Rice plots were developed in the period between the second world war and the eruption; the plots in both

241 villages had to be abandoned at the time of the eruption and rice
197 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
197 and the coagulum sold to a factory at Awala. There were six tappers
[434] in his population sample of 50, who together earned $70 in one year.
[474] When I began my field work, the tapping had ceased as the factory
was no longer buying indigenously grown rubber, but a rubber
cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepa. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepa and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established,
four and one-half acres in size, on which theoretically seven
men were to establish rubber stands. The Malayan trees were
planted here, as well as self-sown trees from the other plots
which were dug up and replanted. These plantings occurred shortly
after Rimoldi left. If the new cooperative venture succeeds, it
is likely that the new plot--most of which still remains unplanted--
will be exploited, but people were clearly waiting to see whether
sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
197 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the
setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepa, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepa, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
[439] since the 1964 census. The number of growers has increased from
five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
$50 and $100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepa coffee
was collected and promptly paid for in Garombi village, about 15
minutes' walk from Sivepa. I did not take another coffee census

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

we find that taro resembles them in that taro gifts are ritual statements by which attitudes toward social relations are communicated. We may say, to use Mr. Sperber's terminology again, that in this respect they form a code structure. It will be shown that this code structure is again nonhierarchical, thus resembling coconut and areca. On the other hand, a statistical study of the behavior of exchange partners shows that, on the level of exchange structure, there are rules by which a hierarchy is unconsciously generated between households and between villages. A system which combines a hierarchical network with a nonhierarchical code might be described, in my terms, as political, though incompletely so.

Most taro produced by the Orokaiva (over 90% in the villages surveyed) is consumed directly by the producing household. Nonetheless taro is the most ubiquitous of all Orokaiva objects of exchange; most households give some of it away every day. It is also part of the conventional set of gifts that change hands on virtually every ceremonial occasion. The main purpose of such gifts is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. The ritual statements that may be made by means of taro gifts fall into two categories: raw taro, ritually given by men, tends to be part of a ceremony aimed at the establishment or restoration of social relations, whereas gifts of cooked taro, normally made by women, are part of the process of maintaining social relations of a certain degree of intimacy.

I shall base the following abbreviated analysis of taro symbolism on one myth. Of the several versions collected, I shall quote the fullest one, indicating variants where relevant. The name of the principal hero is usually given as Totoima, though this name does not appear in the version quoted. Williams has some references to the Totoima myth (see 1930:155, 158–159, 276), but these are not very illuminating. The following version was obtained from Samuel Jovareka, born at Kiorota and now a resident of Sivepe village:

> A husband slept with his wife. She became pregnant and gave birth to a small child. The husband came and asked:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

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The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from the neighboring mountain district of Managalase brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married his sister and how the young man killed his father when the latter returned to complete his meal. He cut the father into many pieces, which were shared out among men whose descendants became the various language groups of the northern district, and multiplied exceedingly.

The informant who told me the myth suggested that its subject was the origin of taro cultivation. The whole text is deliberately ambiguous. When we are told of the woman giving birth to a child, we must think simultaneously of her harvesting a taro—and we must remember that among the Orokaiva only women are considered *capable* of harvesting taro. When the woman is told to cut the child's head off, the narrator is thinking simultaneously of harvested taro, which is considered to be still alive until the top is severed from the rhizome. Again, the woman's method of concealing her children is modeled on the treatment given to taro shoots (*bere*) when they are planted. The word *bivese*, in particular, denoting the heap of weeds with which the children are covered, is a gardening term.

[243]
[462]

The apparent lies used by the woman to hide her activities from her husband are truths if her statements are taken symbolically. For instance, the reference to "throwing the child into the water" calls to mind that the origin of taro in many myths is linked to the water and that the rainy season is metaphorically linked to the fostering of a child in the womb.

The true nature of Totoima, though familiar to every Orokaiva, is not explicitly set out in the myth presented here. In other tales he has tusks which he wears when he kills people, but which he lays aside when he goes to sleep. He is killed by his son after his tusks have been removed from his bed. I shall return to this theme in a later section of this essay. Meanwhile, we note that in attacking his son, lying in the *gaga*, Totoima behaves in the manner of a wild pig while his son behaves like harvested taro. Totoima has partly a pig nature, partly a human nature, and these aspects are only partly differentiated. His son,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

924 I shall begin the analysis of taro symbolism with one myth especially rich in
773 content, which includes all of the five characters, some of whom, in one way or
another, appear in all the myths. It also stands out by the clarity of its detail on
244 the cultivation cycle. As I proceed, I shall discuss some variant myths which
539 emphasise certain themes omitted in the main one or convey the same message in different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

child into the water because it was bad,' she replied. 'I am going to collect cabbage.'

(*Commentary*: The reference to the water is the first of a series of apparent lies which always hide a symbolic truth. In this case it is easy to see the meaning, as several myths exist linking the origin of the taro with water. In one myth a woman was prodding the ground with a digging stick. She found water there (and this was the origin of water); later taro grew in that spot. In another myth a boy and girl who were siblings were washed away in a flood on a coconut tree. At the place where they finally landed they discovered taro. Taro, being identified with a human child, is thought of a growing in the water of the womb. The growth of the taro plant requires a very great deal of water and heavy rain so that the growing plant actually lives in a watery environment, which thus resembles a womb. In this sense, her statement is true.)

4. 'I am going to collect cabbage.' Having said this she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said: 'Wife why did I see you cry when you climbed to collect cabbage?' 'When I went to collect the cabbage the sap squirted into my eyes and I rubbed them,' she said. 'You are lying,' he said.

5. When the children were fully grown, she took them to the mountain far away. She told them their history; 'therefore, I must leave you behind and you must stay,' she said. When she joined her husband again, he asked: 'Why did you stay away so late?' 'As soon as I had done my work and planted my seed (*bere kowitie*), I started on my way home,' she said. 'Woman, you are telling lies,' he replied. When the man understood what his wife had been saying, he went away.

(*Commentary*: When a taro is fully grown it begins to grow shoots on the side of the main rhizome. It is then the duty of the woman to take cuttings from the plant. Strictly speaking these cuttings (Orokaiva: *bere*) are tops of corm-bearing bases of petioles (*Vide* Barrau 1965). These cuttings[1] are taken to a new garden being established, usually, at some distance from the old one. When the husband heard his wife saying this, he understood at once that she had been hiding the offspring she said she had thrown into the 'water'. He could not know, however, that his wife had had twins and this became his undoing.)

6. The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling (*du ate*) had gone to collect taro while the male sibling (*du bite*) was lying asleep with his chest turned upwards in the shelter (*gaga*). It was there that the man found him, understood at once he was his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

(*Commentary*: I do not know whether the narrator of the myth made a mistake when he said at the beginning that the hidden children were 'male twins'. There is no doubt whatever that at the stage the story has now reached they are siblings of opposite sex. While we cannot rule out the possibility of a narrator's mistake, my informant was an unusually reliable one and it is quite possible that there was an actual change of sex. This will become clearer later when we analyse the significance of male and female roles in this tale. The horticultural reference in this passage is to ordinary harvesting routine. The woman digs the taro and places them in a *gaga* or shelter where they stay until

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 773 she takes them home. The brother is clearly identified with taro growing in the field.)

244 539 7. The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers. [262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were [775] discussing the jungle. It was above all a place where the ghosts (*sovai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sovai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[775] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as [784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gaga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gaga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gaga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
● 244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly
[554] towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be
276 shared, after the meeting, between the men and their wives. The men are to ask
562 their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to this reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

[262]

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive [512] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [130] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

223 252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week were spent on it, rising to 6.4 hours in week 16 when only taro [512] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the [461] flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to
473 tubers, especially taro. The Australian authorities had hardly established themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons,[5] brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251]

5: Schwimmer E-4,5 (1966-1967) 1973
QJ23 Orokaiva QJ23
Mountain Orokaiva

197
173
342
343
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231

TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966
(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pamba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/9

657 REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966–JUNE 1967 (*abridged*)

Revenues		*Expenditures*	
Tax: 2000 males	$16,000	*A. Personal Emolument*	
1000 females	1,000	Council President	$ 156
Truck Hire	13,000	Council Vice-President	108
Aid Post Orderlies Subsidy	1,250	Councillors	1,560
		Exec., Fin. Ctee	108
Water Supply Subsidy	3,320	Council Clerk	1,170
Aid Post Subsidy	240	Messenger	390
		Landrover Driver	500
Adult Education Subsidy	780	Truck Drivers	1,450
		Agric. Fieldworker	234
Miscellaneous	2,900	Market Manager	260
Total	$38,490	Aid Post Orderlies	2,500
		Total	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		Total	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health, Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 villages)	900
		Roading (3 projects)	6,070
		Other Items	2,099
		Total	$21,434
		Grand Total	$39,212

Council were road building, improvement of water supplies, building medical aid posts, maintaining produce markets at Popondetta and Saiho and the operation [651] of trucks to provide extra revenue. Most revenue was derived from a head tax of $8 per annum for every adult male and $2 per annum for every adult female. The central government paid a 50 per cent subsidy on certain Council projects. [474] Between 1959 and 1962, the Council also ran the coffee processing factory [245] operated for Orokaiva producers, but this was transferred to the control of an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 protection was now demanded on pain of eviction. Around the same time, coffee
423 was being introduced in Inonda as a cash crop, but none of this was planted on
425 Tandai'undi land. Three men who had land derived from a different source planted coffee there in 1955 but the other families who had only Tandai'undi [422] land had planted none as late as 1967. They feared that if they did, there would [245] be trouble with the Tandai'undi.

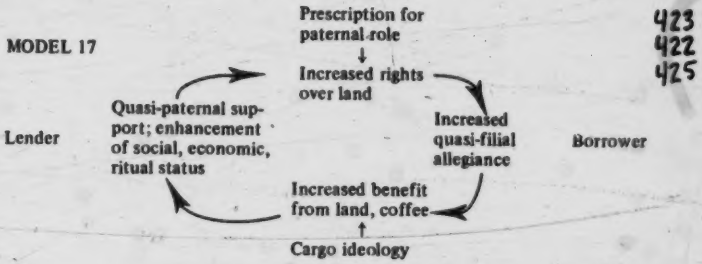
There are many examples in other parts of Orokaiva territory to show that these fears were fully justified. To confine myself to Sivepe, where my data are most detailed, I found that although more than half the land was occupied by
423 rights other than patrimony only two out of fourteen coffee gardens were
422 established on such land. When I inquired into these two cases one grower
425 explained to me in careful detail that he had nothing to fear because the mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

602 One might well regard such immoderate claims as the response to a
423 breakdown in the social exchange relationship. According to model 17, increased
425 rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however,
[245] was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave
[797] fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is
[881] one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

614 In order to demonstrate the importance of quasi-filial allegiance as a factor in
423 land transactions, I shall cite one case, again from Inonda, where coffee gardens
425 are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967,
[435] are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

[736] The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

423 Instances of this kind help us to understand what was involved in the
425 Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have
571 long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4. 10. 1898 (quoted in Healy 1962 : 84).

Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

[131]

(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

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(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

435 245 [258] [249] 245 425 [578]

At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) No copra was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. After the war the Akute'undi, as landowners, claimed the trees as their own on the ground that the community project had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the right of the Akute'undi to the exclusive use of the coconuts as all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

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Enquiries in fifteen other Orokaiva areas where coconuts were planted under the regulations show that most were never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 average f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture.

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with.

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres.

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

466 days per year on the plantation of his village.(1) Those who worked 60 days or over were thereby exempted from head tax 245 (then ten shillings per year). Those who did not were liable not 651 only to head tax but also to a fine of £2 or imprisonment with hard labour for a period of three months.

245 Evidence is inconclusive as to how much work was required in practice. Despite the reference to sixty days' work 466 per year, crops like coffee needed constant attention and if only sixty days per year were to be performed by each man, either work days would need to be staggered or workers rostered. At first government officers required 120 half-days, but in most villages once the crops were in bearing all men were required to attend every morning from Monday to Friday throughout the year.(2) None of the foremen had watches and it is impossible to know how long men worked in fact, but informants in widely separated parts of the area claim that they were required to work until noon in the coffee gardens. In addition, men took turns to carry the produce on foot to the government base at Higaturu every Saturday. This involved a walk of about fifteen miles in each direction from the Ongoho (Asigi) community block.

462 Women took no part in cash cropping, but they did most of the gardening. Men sometimes helped in the food gardens in the afternoons.

657 Reports of the period contain many references to the peoples' lack of enthusiasm for the scheme and heavy sanctions 245 were applied by government officers to have their programme 466 enforced. In 1925 the Resident Magistrate tried to extend the

(1) Men who had been away as indentured labourers were exempt from this requirement for three months after their return to the village.

(2) At several places near Higaturu people claimed that they were required to work afternoons also during busy periods. After such periods they would be allowed a week or more off with no plantation work. It seems likely that this was done in the villages close to Higaturu which were under closer supervision by the officer in charge of the plantations. In the more distant areas the officer seems not to have delegated any authority to vary the regular pattern. Humphries (1944 : 3) notes that the specified period of 60 days (he says three months) was not observed in practice and that "in fact men were called upon to work whenever circumstances required them".

scheme to Ioma and other areas. At Ioma "it was only when faced with the alternative of going to gaol for failure to pay tax that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

The standard penalty for failure to work was three months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

Daily work on the community coffee gardens was supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

Such was the difficulty of getting labour to carry the produce from the factory at Higaturu to the port of Sanananda (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

245 466 [465] No payment was prescribed, and none was made for carrying from the plantations to the depot at Higaturu. Sometimes payment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the ordinance were required to carry as punishment. [492] Mules were later introduced to carry the produce from the factory to the [493] port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 177 Official reports of the period consider the reluctance of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol".(1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, producers were required to deliver all produce to the government [651] depots at Higaturu, Popondetta and Buna.(2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. [435] The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the 245 plantations is estimated to have been about 700, so payment [465] would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places [466] where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

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(1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 19]

6: Crocombe E-4,5 (1963) 1964 0.23 Orokaiva 0.23

Table 1

Production of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for ten years 1931 - 40[1]

Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Total	Yearly average
Weight (lbs)	9,630	22,652	67,470	60,645	61,425	123,000	127,000	171,595	187,300	163,319	994,036	99,404
Payout[2]	170	426	828	558	642	1,280	1,425	1,527	1,863	2,102	10,821	1,082
Pence per lb[3]	4.2	4.5	2.9	2.2	2.5	2.5	2.7	2.1	2.4	3.1		2 6

(1) Derived from Territory of Papua reports 1932 - 41.

(2) Net payment to producers in £ Australian.

(3) Calculated to the nearest tenth of a penny.

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6: Crocombe E-4,5 (1963) 1964 0.23 Orokaiva 0.23

Table 2

Output per acre of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for five years 1936 - 40[1]

Year	1936	1937	1938	1939	1940	Total	Yearly average
Acreage	189	218	242	242	242		226.6
Total output (lbs)	123,000	127,000	171,595	187,300	163,319	772,214	154,443
Output per acre (lbs)	651	582	709	774	675		681

(1) Derived from Territory of Papua reports 1936 - 41.
Acreages for the years 1931-5 are not available.

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ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

taken as much time as the work itself for some of them.(1) 245

Under ideal conditions each worker could probably have handled one to two acres working mornings only. Such, however, was the government's enthusiasm for instilling regular work habits (or at least regular attendance at the place of work) that no roster system seems to have been worked out to ensure that workers attended for the minimum time necessary to complete their tasks. It is not difficult to understand that, though fear of imprisonment kept the project going, there was little enthusiasm for it in the villages. [466] [461]

(1) Girigirita and Oere were about an hour's walk each way from the coffee block.

Post-war community plantations (1945 - 62)

177 657 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth [466] considerably more than pre-war rates. However the military administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

465 [434] Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

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Table 3

Coffee production in Papua 1939-63[1]

1938-39	112	tons	(Of which 84 tons came from Orokaiva native plantations)
1939-40	77	tons	(Marketing and supervision affected by war)
1940-41	69	tons	(Marketing and supervision affected by war)
1941-42	Nil		(Japanese occupation)
1942-43	Nil		(Japanese occupation)
1943-44	1	ton	(Australian military occupation)
1944-45	6	tons	(First attempt to revive scheme)
1945-46	20	tons	(First attempt to revive scheme)
1946-47	21	tons	(First attempt to revive scheme)
1947-48	12	tons	
1948-49	19	tons	
1949-50	24	tons	(Second attempt to revive scheme)
1950-51	13	cwt.	(Owing to Mt. Lamington eruption)
1951-52	½	ton	(Owing to Mt. Lamington eruption)
1952-53	1½	tons	(Owing to Mt. Lamington eruption)
1953-54	2½	tons	
1954-55	4	tons	(Third attempt to revive scheme)
1955-56	5	tons	(Third attempt to revive scheme)
1956-57	11	tons	
1957-58	7	tons	
1958-59	17	tons	(Includes first exports of coffee from individual plots sponsored by agricultural extension on land registered under Higaturu Council land registration scheme)
1959-60	24½	tons	(Including 7 tons from indigenous producers in Northern District)
1960-61	30	tons	(Including 24½ tons from indigenous producers in Northern District)
1961-62	35	tons	(Including 26 tons from indigenous producers in Northern District)
1962-63	49(?)	tons	(Including 41 tons from indigenous producers in Northern District)

(1) These figures had to be derived from a variety of sources, for the Annual Reports for Papua do not include exports made via Lae in New Guinea. They must be taken as approximate only.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

245 ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not [578] paid. There was by this time a continuing dispute about the distribution of income from the coffee.

The Hoiwo'undi sub-clan, on whose land the Ongoho 578 coffee was planted, claimed a larger share of the proceeds 423 because the land was "theirs". As no agreement was reached, 614 the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is unjust that Hoiwo'undi should have denied them access. No- [241] body, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

245 For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee there spasmodically. The income was shared within Hoiwo'undi. No weeding, pruning or other maintenance work was carried 731 out at this period. At the time of the Mt. Lamington eruption 241 in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations.(1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952.

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account.

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage.

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons [435] from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped [462] with the harvesting. The income from sales was distributed by [464] the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss [578] for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. [433] The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little [434] coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots.

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all [578] people worked together to clear the undergrowth. This system

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

245 [578] operated for several months but broke down when the Hoiwo'undi, who felt that they were entitled as landowners to some extra share of the proceeds, again forbade members of other sub-clans to enter the coffee garden.

Since that time only the coffee boss and his family have ever picked the coffee, and they only occasionally. No maintenance has been carried out for some years. The Hoiwo'undi people say they would like to take full control of the block and divide it into individual plots - one for each of the six men in the sub-clan. They would be prepared to grant a portion of the block to the related Akute'undi of Ongoho village who were planting food crops on some of the land at the time the 578 coffee project was started. Some Akute'undi claim that the land is, in fact, theirs exclusively. The other sub-clans want separate and equal divisions for each of the participating sub-clans, arguing that all cleared and planted the coffee. It is unlikely that agreement will be reached.

121 We subsequently paid brief visits to sixteen other plantations which had been gazetted pre-war to determine the nature of the problems which had led to their abandonment. As time did not permit of detailed investigations, we regard the results as indicative rather than definitive. Details of the situation are set out in Appendix A.

A. [See Category 423, pp. 37-40--Analyst]

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1) 241 614

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it. [726]

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2) 245 249 657 466

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group. 245 657 466 [626] [461] [626]

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951. [249] [731]

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

agricultural techniques of cash cropping and to regular patterns of work. It is true that most of the individual plantings of coffee since 1956 were made with seeds taken from the old community blocks where the techniques of coffee husbandry had been learned, but it was there also that the people had acquired their distaste for cash cropping.

The fact that all attempts at developing communal cash cropping among the Orokaiva have failed does not necessarily mean that communal planting is never practicable. What it does indicate however, is that to be successful, communal farming like any other farming system, must be coupled with appropriate organizational structures, sanctions and incentives as well as with extension, processing and marketing facilities.(1)

(1) Individual small-holdings do not of themselves lead to higher output. Since 1956, the nine Asigi villages which participated in the Ongoho community block have been encouraged to plant individual cash crop gardens. To date only 33 gardens have been planted (all of coffee). They cover only about 9 acres of land and contain 4,209 trees. Most are little better tended than the community block and fifteen are completely abandoned. Low price, distance to the market and lack of extension services seem to be responsible.

Appendix "A"

Plantations established in the Northern District on Crown land under the Native Plantations Ordinance

Official No.	Location	Area a.r.p.	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage(1)
5	Bowera (Ioma)							
6	Tabara (Ioma)							
7	Wadi (Ioma)			These four plantations were never operated. They were cancelled in 1932.				
8	Poho (Ioma)							
15	Sasembata	10.0.0		(Not visited)				
16	Garombi	10.0.0		(Not visited)				
17	Isivita (Pereteambari)	10.0.0		(Not visited)				
18	Isivita (Koropata)	10.0.0	Rubber	Koropata Kiorota Egaturu Tambore	Berikipa Oitopa	Still being tapped	Owners of individual trees	------
19	Wasida	10.0.0		(Not visited)				

(1) Reasons given by the villagers. In places where only brief visits were made these may be incomplete.

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Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
20	Huvivi (New Mongi)	20. 3. 8	Coffee	Huvivi Hingoturu Onjahambo Ahamba Koganata	} Sokepa) Hominapa	Slight		
21	Mongi (Hangeriterari)	20. 0. 0	Coffee	Mongi Pengipejari Baiwaturu Oteindarituru	) Unjekapa) Darahopa) Koreapa) Akeopa	Nil	-	
22	Soputa (1)	20. 0. 0	Coffee	Soputa Hinhota	(Paratapa, Kovenopa (Wastripa Asinapa, Humotapa, Soupa, Asepa, Pangaripa, Tigasepa, Angorapa	Nil	-	Dispute over land rights
23	Sombo (Sangara)	15. 1. 30	Coffee	Sombo No. 1 & 2 Egaturu, Tunana, Seondeturu, Hangeturu, Sehamo, Huisata	) Horeopa, Embupa,) Pangaripa, Sorupa,) Hombereрa, Heurapa,) Heregapa, Dihumapa,) Horipa, Besupa,) Hirikipa, Hatopa,) Okaipa, Sivavapa,) Houngapa, Umbahapa,) Anetapa, Kogorapa	Slight	Any Sombo people not killed in eruption	Destroyed by Mt. Lamington. Individual plots planted before community plot rejuvenated

(1) Location later changed from Crown land to Native land.

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Offi-cial No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
24	Imanituru (Old Higaturu)	30.0.0		(Not visited)				
25	Andemba	22.2.0	Coffee	Andemba, Kewana, Kuruta, Opapata, Hamuni, Ogapoegarota, Hamumuta	) Horeopa, Huaepa,) Heregapa, Sindapa,) Pakuhopa, Jujapa,) Warauapa, Punahopa,) Suarapa, Haujepa,) Noerapa	Slight	Any Andemba people not killed in eruption	Destroyed by Mt. Lamington Individual plots planted before community plot rejuvenated
26	Ambogo	22.2.0	Coffee	Ambogo Amonekirota Haeraturu Ojahirita Ambohu	(Komotepa, Serigepa, (Hurepa, Oripa, Moinapa, (Sigorepa, Hinjopa Sohopa, Hatopa, Sehopa Sehopa Haujepa Embatipa	Slight		Partly destroyed by Mt. Lamington
27	Hamburata (Huhurundi)	20.2.0	Oil palm then coffee	Hamburata .... Haugata ..... Kukumbata .... Juhata ..... Seoro	(Herepa, Boutepa, (Iohipa, Ombarapa, (Seharipa, Oripa, (Barunapa, Bakopa, (Berehobari, Irinapa, (Ingikipa (Atupa, Bangaripa, (Embesepa, Haunapa (Oretapa, Huhurupa, (Hauro, Heregapa, (Pakopa (Sindapa, Hihinepa, (Jiregapa, Aukapa (Huepa, Akutepa, (Oisopa, Jega	Nil	-	Price inadequate - coffee trees later destroyed by flood

Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
28	Ahora (1) (Huhurundi)	20. 0. 0	Cocoa then coffee	Ahora Arova Omba	Hurupa Gambe Gambe	Nil	-	Price inadequate
29	Kanari	12. 0. 0	Coffee	Kanari, Ajase, Iwori, Waru, Jajau		Nil	-	Dispute over land rights
30	Ongoho	15. 0. 0	Coffee	Ongoho, Sotokoiari, Ivimsu, Hongorata, Ondahari, Oere, Girigirita	Akute'undi, Pomoni'undi, Holwo'undi, Sahuru'undi, Kajumba'undi, Hature'undi, Urumo, Baruma	Slight	1 family (ex coffee boss)	Disputes over land rights, income distribution and work sharing
		270. 2. 38						

(1) Rescinded 2. 12. 1929, but land legally remained as Crown land.

The above plantations were all gazetted on 7. 2. 1923, but an addition of 4 acres (making 20 acres 3 roods 8 perches in total) was made to Plantation No. 20 on 6. 2. 1929.

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6: Crocombe E-4,5 (1965) 1964 0323 Orokaiva 0323

Appendix "B"

Plantations established in the Northern District on Native Land under the Native Plantations Ordinance (1)

Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
75	Doboduru (Beuru-Perombata)	1925) 1929)	12.0.0	Coffee	(Not visited)				
76	Kakendeta	1925	9.0.0	Coffee	(Not visited)				
77	Haugata (Hamburata)	1925	12.2.0	Coffee	(Not visited)				
78	Eruatutu	1925	31.0.0		(Not visited)				
104	Kiorota-Hohota (Meamburari)	1929	15.0.0	Coffee	Hohota, Kiorata	Jau'undi, Havarihaha, Kaguhaha, Andirihaha, Suaruundi	Slight	Former landowners	Dispute over work organization and income distribution

(1) These are in addition to the lands listed in Appendix A, which covered those acquired by the Crown and set aside as Native Reserves. Plantation No. 22 (Soputa) was transferred from Crown land to Native land in 1930 - see Appendix A.

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Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
105	Hegata-Pendereta (Hururu)	1929	9.0.0	Coffee	Hegata Penderata Puhemo	(Bevehupa, Baratapa, (Eherapa, Okaipa, (Endehipa, Waraupa, (Angoropa Sesengipa Ribunipa, Gasipa, Horiwapa	Still Picking	2 Hegata men (the former landowner and one other)	Still working. The non-owner gives the landowner a share of proceeds from sales.
106	Banguho Creek (Peromba-hambo)	1929	12.0.0		(Not visited)				
110	Tumana	1934	9.0.0	Coffee			Slight		Damaged by Mt. Lamington
111	Beuru	1934	8.0.0	Coffee	(Not visited)		Slight		Damaged by Mt. Lamington
112	Hegau (Kanari-Jajau)	1936	6.2.0	Coffee			Nil	-	Dispute over land rights
113	Heherita (Kogonata)	1936	4.0.0	Coffee	Girigirita, Epa, Heherita	Pomoni'undi, Jahaki'undi, Urumo	Nil	-	Not resumed after Mt. Lamington eruption. No reason given
			128.0.0						

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Appendix "C"

A sample of community plantations established in the Northern District of Papua since 1947 (not related to the Native Plantations Ordinance)

Location	Year started	Area (approx.)	Crop	Villages participating	Sub-clans	Present use and user	Reasons for stoppage
Hojavasusu			Coffee (originally cocoa)	Hojavasusu	Seho, Uhoru Ererehaije, Hoihane, Kindarahaije	Sub-divided about 1956 into individual plots. (Well kept. Land belongs to Seho sub-clan but no dispute over use by individuals of all clans).	Not stopped. (Use rights confirmed by registration with Higaturu Council)
Ajeka			Cocoa	Ajeka		Spasmodic, mainly by landowners	Dispute over land rights
Sivepe	1956	1½ acres	Coffee	Sivepe	Jegase, Seho, Timumu	Divided into individual plots in 1958.	(Registration with Higaturu Council applied for)
Gewoto	1947	3 acres	Coffee	Garara	Somboba, Ijipa, Undaripa and 2 others	Nil	Dispute over land rights

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Appendix D

Native Regulation No. 121[1]
(Providing for compulsory planting of economic trees)

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Coconuts and other useful trees and plants

(1) It is a good thing to plant coconuts and other useful fruits and trees, and all coconuts and trees planted under this regulation shall belong to the person that plants them and to his heirs, and every able-bodied man shall from time to time plant coconuts and other useful trees and plants. The Magistrate shall fix the number of trees or the area of land as the case may be that the able-bodied men of each district or village shall plant, and coconuts shall be properly planted at a distance not less than five fathoms from tree to tree.

(2) All men will not have to plant the same number of coconuts and other useful trees, on the same area of land because some men have little land and some have much and some places are not good for planting trees.

(3) It shall be the duty of the village constable to see that this regulation is obeyed in such villages as the Magistrate directs, and if he fails or neglects to do so he shall on conviction be liable to a fine not exceeding Two shillings and sixpence or in default of payment to imprisonment for any period not exceeding Seven days, or to imprisonment in the first instance for any period not exceeding Seven days.

(4) The Magistrate shall also, where deemed desirable, order the people to plant and cultivate useful food trees along the village road so that they may all enjoy the shade and eat of the fruit.

(5) The Government may provide the people from time to time with young trees or seeds to plant, and the Magistrate will direct the people where to plant them.

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(1) Native Regulation Ordinance 1908-30.

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(6) If any native who has been ordered to plant and cultivate a certain number of trees or a certain area of land by the Magistrate wilfully neglects or refuses to do so he shall on conviction for a first offence be liable to a fine not exceeding Five shillings or in default of payment to imprisonment for any period not exceeding Six weeks, or to such imprisonment in the first instance; or, for a second or any subsequent offence to imprisonment in the first instance for any period not exceeding Three months.

Sub-clauses (7) to (9) cover minor points of detail and have been omitted.

This regulation was amended in 1946 such that planting could be forced thereafter only in the event of serious food shortages.

Appendix F

The Orokaiva villager's experience of cash cropping

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only ....

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee.

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away ....

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[end map]

HEHERITA
ONGOHO
HAMBURATA
AHORA
GEWOTO
KANARI
HEGAU
SOPUTA
HOJAVASUSU
KAKENDETTA
POPONDETTA
DOBODURU
BANGUHO
HEGATA
MONGI
HUVIVI
TUNANA
BEURU
AMBOGO
SOMBO
WASIDA
ANDEMBA
KIOROTA-HOHOTA
HIGATURU
IMANITURU
GAROMBI
SIVEPE
SASEMBATA
ISIVITA NO2
ISIVITA NO1
AJEKA
Mt. Lamington
Ambaga River
Girua River
Samboga River
Kumi River

NATIVE PLANTATIONS IN THE NORTHERN DISTRICT

△ Plantations established on Crown Land under the Native Plantations Ordinance.

▲ Plantations established on Native Land under the Native Plantations Ordinance.

○ A Sample of Community Plantations since 1947 (unrelated to the Native Plantations Ordinance).

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could [431] in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the [435] existing demand and priority is given to the use of pigs for distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

e. Economic trees

245 Although the village is 23 miles from Gona on the coast and [131] over 1,000 ft above sea level, most economic trees are abundant. [133] The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. [137] Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timusu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

423 It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes [245] acquire trees of their own in this way but unless a woman is the [428] sole surviving member of the agnatic group in which are vested the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated [685] that he would not expect his sister to ask for produce from his trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38).[A] Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed [423] to retain by the deceased's co-resident kin who inherited the land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 On special festive occasions a localized patrilineal group has 614 some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

A. [See Category 428, p. 38--Analyst]

464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
[466 District. The young men on the other hand readily leave village life temporarily to take casual work on European plantations in the district where there is now a greater demand for labour. They may leave their wives and children to be provided for in the meantime by the other side of the family or may have them accompany them to the area where they are employed. These absences interrupt the routine of subsistence activities for the family but the possibility of this course of action is left open by local environmental conditions and the virtual independence of the nuclear family as a gardening unit. There is little seasonal variability and this small group is free to resume any phase of garden activities when and where it chooses.

431 Among the 3 able-bodied and active men of the senior group there seems to be no consistent demand for cash which cannot be met by gifts from their kin or affines and they have sought temporary employment only as a means of meeting some immediate financial requirements. With the exception of the salaried local government councillor the older men received 78 per cent of their total year's income of $88 as gifts.

434 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods available locally as well as on kinship obligations. However, not all income is spent in this way and, as Belshaw found in this area (1951:11) there is both some capital available for investment and a willingness to contribute money to funds for this purpose if they can be organized.

The men who have spent most years in paid employment also supplement their income by producing rubber and coffee, sometimes with the assistance of their fathers. However, no one has invested heavily in these crops and they provided only $52 or 15.8 per cent of the sample's income for the year.

245 c. Commercial agriculture

(i) Coffee. Four householders in the sample have individual coffee plots with a total of 503[1] trees on 1 acre of land. One of these plots is a section of a former village or 'company' coffee plot. About the time of the opening of the Higaturu Council in 1956 members of Jegase, Timumu and other groups in Sivepe and Binduta villages participated in the planting of 2 'company'

[1] The agricultural census of 1964 recorded 1,100 trees held by 5 growers in Sivepe as a whole (162 were not yet 6 years old and 491 of the trees had been planted more than 10 years before).

●245 coffee gardens.[1] About 320 trees were planted on the Sivepe plot. It was not government policy to encourage community gardens, but those who made the garden were under the impression that this was the wish of the officer who suggested that the people in the villages plant coffee.

Clearing of this 'company' garden was carried out jointly by members of all Sivepe clan branches. A part of the land they used belonged to a Timumu lineage and the rest to a Jegase lineage. [654] While the trees were maturing an agricultural extension patrol told them to stop working the gardens jointly and to make new individual gardens. In 1957 a Cadet Patrol Officer gave the same advice explaining that disputes would otherwise occur about the distribution of income from coffee sales.

[613] It was decided to divide the Sivepe coffee along pre-existing lineage boundaries; one part was taken by a man of Hajejopa lineage of Timumu clan, the other by a Seho man (e38) who is the husband of the only surviving member of the Jegase lineage, Seseiwopa. Even after this had been done these men claim to have shared the small amount of money from the first sales with the other planters.

Since the division the Timumu man has indicated that he claims the land as far as a creek which formed the outer boundary of the village plot on the Seho man's side, i.e., that he believes all the coffee was planted on his land. Even though the Seho man applied in 1960 to have his section on his wife's land registered with the Higaturu Council, he now intends to give it to the Timumu man and to plant new coffee on his own land.

The other 3 gardens were planted on a household basis in 1957.

Two men from other clans have planted coffee on the land of Jegase men in Sivepe. One garden was made about 5 years ago by a Seho man from Sivepe (e45) on the land to which his father had planting rights. The land had earlier been held by a man who was the wife's brother and sister's husband of the present planter's father. The holder of the residual rights passed them to his classificatory sister's son from Berekipa lineage who some years ago used the Seho man's land for subsistence gardens.

The other garden is on the land of a Bebehupa man and was made by his father's sister's son, an Usohu man from Binduta. The Usohu man was given rights to plant sago and coffee because he had been named after the landholder's father's father.

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[1] In August 1955 an area 30' x 40' was reported to have been cleared and planted with shade under the direction of the Village Constable.

245 [G54] At the time of our survey no one who had a coffee garden had taken any steps to grow cocoa although one man claimed that as a result of a recent visit by an agricultural extension patrol he now proposes to interplant cocoa[1] with the rubber which he had planted, and another who already has coffee claims that he will plant cocoa in one of his subsistence gardens when it is finished. One man was given cocoa seedlings by some kinsmen but he has made no preparations for transplanting them from the nursery.

Only 2 men have made even minor extensions to their original small coffee gardens. In 1961 one of them added about another 70 Leucaena shade trees. The other has extended his coffee plot with 60 young shade trees.

[134] Lowlands coffee (Robusta coffee) is grown and is well suited by the soils and climate. All planters have access to the dark friable loams (mama) of the area (but 1 plot planted on an abandoned subsistence garden became waterlogged). Crotalaria is used as a shade tree but Leucaena glauca is now established in mature gardens. The shade is planted in lines and the sites for [G54] the coffee trees are staked out. Some planters, with assistance from agricultural fieldworkers, arranged these on about a 10 foot triangle but the density of trees varies considerably from one plot to another.

Coffee seeds are bought from the agricultural station or are sometimes given by a neighbouring planter. When the shade is established, they are planted in a nursery sheltered with bush materials. The ground is turned with a bush knife and the seeds covered with a layer of soil. Until transplanting an occasional weeding is all the further attention they receive. Seedlings which have grown to a height of about 2 feet are taken to the shaded lines of stakes and transplanted. No root pruning or preparatory holing of tree sites is carried out. The growers claim a high percentage of strikes from the seedings but since few of the recommended transplanting procedures are followed the vigor and yields of the trees are probably reduced.[2]

For the first few months the ground near the seedlings is weeded and later weeds are cut when growth becomes rank. In theory the owners prune the plots about once a year wherever shoots are too long but the incidence of tall trees and suckering shows that more care could be taken in this aspect of husbandry. [G54] Arch-pruning (agobiada) has not been tried on any of the sample

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[1] Extension officers usually do not encourage the planting of cocoa instead of coffee in this area.

[2] See Cole 1960.

245 [654] plots but agricultural officers intended to launch a campaign in the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 [434] Not all receipts for sales of coffee from the sample plots had been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organization of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepe and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepe and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasua and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepe neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepe. The growth of the [245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

249 planting was still being encouraged. The trees planted in the district were for long the only Papuan-owned rubber plots.

249 These trees had been planted under Native Regulation No.121,
657 first passed in 1903 but not enforced in this division until the first world war. The legislation states that 'it is a good thing to plant coconuts and other useful fruits and trees.... The Magistrate shall fix the number of trees or the area of land, as the case may be, that the able-bodied men of each district shall plant' (Native Regulation Ordinance 1908-30).

466 We could not determine how much compulsion was involved in
249 establishing each of these 'plantations' but in 1921 the Assistant
657 Resident Magistrate reported that planting in the district needed more supervision than one officer could provide and in 1922 the Lieutenant-Governor said that the threat of force was necessary to ensure the success of the policy of agricultural expansion
● [245] under the regulation (Territory of Papua 1921-2). A particular reason for resistance in this district may have been the official priority given to rubber whereas it was reported ' the natives prefer coconuts due to their food value' (Territory of Papua 1920-1). A person who refused to plant was liable to a fine of 5 shillings or 6 weeks' imprisonment or to 3 months' imprisonment for a second offence.

249 The people of 3 villages, Pusahambo, Euru and Asina, were directed to co-operate in the planting of one of the stands near Sivepe. After the people of Asina had declined to provide land it was agreed that the plantation should be established on a parcel already partly cleared near Pusahambo. Part of this land belongs to Timusu people and part to Jegase; and although 1 Timusu lineage sometimes assert that they also hold residual rights in the Jegase section of the land, they appear never to have questioned the rights of the members of Jegase and Seho clan branches to the trees.

The only other plantation to which any member of the sample has rights is Korinasusu. This also is on land divided between members of 2 different clans, Jegase (Bebehupa lineage) and Usohu, who disputed the exact boundary when we enquired about it, but have generally been able to agree on the rights to tap the trees.

249 It seems that the rubber project in the district was designed
657 so that, from the start, the owners of the rubber should themselves handle much of the production and processing. They were encouraged to plant lime trees 'so that they can coagulate latex with lime-juice and smoke a fair sheet of rubber for market' (Territory of Papua 1920-1). However, no facilities for the manufacture or processing of latex or rubber were introduced. The people claim that after the planting regulation had been enforced, the trees

433 replacement of his vehicle being necessary but uneconomic. By
249 1958 independent production from his own plantation was increasing
[464] and, despite periodic renewal of enthusiasm for rubber,[1] the number of village tapping stands had dwindled,[2] due partly, in the planter's view, to the movement of increasing numbers of able men from their villages to take paid employment. Already, in 1955, it had been noted that in the areas near Awala and Sangara there was a serious shortage of manpower for work in the villages due to the absence of men employed as wage-earners.

In 1958 the people still interested in tapping adopted the planter's plan that, instead of selling latex at 1 shilling per pound dry weight of rubber as before, they should coagulate their latex themselves and carry it to the factory for sale at 6 pence per pound of coagulum. However if members of a distant village had a lot of coagulum for sale, they might still ask the planter to send a vehicle to collect it without charge.

[435] Bi-annual 'reports on native agriculture' put production from village stands for the year ending 30 June 1959 at 7,000 lb. (dry weight) and the price at 1 shilling per pound. In November of the
[464] same year it was estimated that rubber was produced from about 50 acres of village stands. By December another 2,750 lb. had been produced and the European planter suggested that declining production was due to the attraction of labour to the new Sangara
●[245] European plantations and to heavy demands on villagers' time made by Administration departments and the mission. Coffee and cocoa planting was said to be increasing at the expense of interest in tapping rubber. In the first 6 months of 1960, however, 4,700 lb. (dry weight) was produced; by mid-1964 interest had increased further[3] and coagulum with an estimated dry rubber content of
[435] 1,500 lb. per year was being produced. In 1962 the price offered by the planter for coagulum had fallen from 6 pence to 5½ pence per pound.

249 It is not clear whether the individuals who offered themselves as tappers after 1946 had been conceded this or any other right by the rest of the villagers. Responsibility for distributing

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[1] In the first 6 months of 1955 production from 7 plots of rubber 'in the Sasembata area' rose by 60 per cent to 8,000 lb. dry weight (DS-29-855).

[2] The planter puts the number of villages involved at this time at about 30. The number participating at present is still about the same.

[3] Interest was aroused by the Ombisusu rubber project at this time (see p.102).

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] [436] [245] The areas of the gardens in which coffee was tried were too small to give satisfying returns.[1] The income of £11 earned by the sample by weeding, processing and marketing their coffee in 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty of rewards is reported to be common in most villages in this area. [245] However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.[2] Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

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1 The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

2 Figures from 1964 census, District Agricultural Office.

241 that is then cultivated contiguously,[1] while in the high density
423 areas there is a tendency towards a more individual pattern of
[613] exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate [425] landholdings. This pattern is promoted by the high degree of fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred [578] outside the direct patrilineal line, and this applies equally to land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 Traditional tree crops are not planted in stands or groups like
428 cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available [311] at any one time to permit contiguous cultivation. Two other factors [136] are that in low density areas wild pigs and other animals necessitate [417] the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

797 The majority of Papuan teachers remain unqualified teacher-evangelists although the mission is largely responsible for education in the sub-district at the primary, secondary and technical levels. A significant feature of their education programme as a whole remains its total disregard for agricultural training, except incidentally at the Martyrs' Memorial Secondary School where the pupils maintain a coffee garden as well as their own food gardens.[1]

[743] Medical work has already formed a large part of the mission's activities and most mission stations operate a clinic and small [657] hospital while a T.B. hospital is maintained at Embi. As with education, these activities are largely standardised by the Administration and the Department of Public Health is gradually taking over from the mission in this field.

(e) Recent developments in commercial agriculture

241 In 1941 a European planter obtained an agreement, under the Transactions with Natives Ordinance 1893-1935, to exploit the communal rubber plantations in the Awala area.[2] These had not previously been worked. Production commenced in 1943 and continues to date, interrupted only by the Mt Lamington eruption. However, the number of plantations incorporated in the scheme fell steadily and by 1965 only about 30 stands were being worked and tapping had become irregular. This is due partly to poor communications, partly to the fact that an agreement satisfactory to all parties was never arrived at and partly to the planter's own trees coming into full production.[3]

The re-opening of Popondetta agricultural station in 1954 led to a renewal of interest in cash cropping with, in particular, the [245] extensive planting of cocoa. By 1964 there were estimated to be 491,000 indigenous-owned coffee trees in the sub-district, 244,000 cocoa trees, 25,700 rubber trees (almost entirely the product of natural increase) and 108,000 coconut trees. This pattern of steadily increasing plantings only levelled off temporarily in 1959-60 with falling coffee prices, a shortage of coffee seed and inadequate marketing arrangements for cocoa. At the time labour

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[1] However, agricultural training at several levels has been available since 1955 at DASF's Popondetta Agricultural Station (now Popondetta Agricultural Training Institute).

[2] These had been established during the first world war in that part of the District considered too far inland for worthwhile copra production. There were 137 stands in all.

[3] For a detailed description see Rimoldi 1966:86-93.

24 [433] holdings of commercial trees are not fully, and sometimes not at all, exploited by the owners.[1]

Most have been established on land cleared for the purpose and are seldom interplanted with subsistence crops. However, a 'catch crop' of taro, sweet potato or corn may be taken from the newly cleared land before planting coffee or cocos and it is only now becoming common to plant commercial trees in subsistence gardens after the food crops have been harvested.[2]

● 245 The techniques of cultivating and processing cash crops within the village are simple. Coffee is sold in parchment form. In most cases the cherries are pulped by stamping in a creek to split them open, and then the beans are removed by hand and washed. Some villages possess pulping machines. After fermenting for about twenty-four hours in wooden containers, the beans are washed again and sun-dried. A few people erect drying platforms but most simply spread the beans on sleeping-mats in the village square. The buying agency rejects parchment that has not been adequately dried but no price differentials are applied. The coffee season extends from about March to October and people may begin weeding some weeks beforehand. OCGS announces the season's coffee price (as determined by world market conditions) some weeks before buying commences, but few producers learn it in advance and, since they need to begin harvesting a month or two before the time of sale, the element of uncertainty may deter them from maintenance and harvesting even in years of high prices. All coffee is purchased by the society, which is sometimes prevented from buying by lack of funds, lack of transport, or by the poor state of the roads. Buyers may visit only once a month or less.[3] There is scope for an immediate quadrupling of production from existing trees,[4] and more active campaigns and perhaps additional buyers might help achieve this.

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245 Cocos, like coffee, is maintained, if at all, by occasional clearing of grass and weeds from around the trees. Harvesting is carried out immediately before sale - if possible, on the same day.

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[1] The coffee trees in Popondetta sub-district in 1963 should have yielded about 200 tons of polished coffee, but the actual level of output was only 41 tons (DASF, Popondetta, File 1-6-A(4)).

[171] [2] This practice was followed by indigenous smallholders in Malaysia and Indonesia for two decades and resulted in the planting of millions of acres of rubber by the 1930s. See, for instance, Thomas 1965:101.

[3] In marked contrast to the more densely populated and more accessible parts of the highlands where competition among buyers is keen and some routes are visited daily.

[4] See footnote 1 on this page.

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged [435] and sold at one of the co-operative buying agencies at Killerton, Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 (ii) Marketing. In addition to the long-distance trading of subsistence produce by coastal people, the inland people are also [443] beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

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[433] [1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

241 cultivators in New Guinea.[1] This was due partly to changing emphases in the pattern of work between the two surveys, particularly the greater amount of time used for external agencies and in the inception of two communal enterprises (the establishment of a cash crop garden and preparations for the transfer of the village [125] to a new site). Three other factors must be taken into account. Firstly, a slightly different survey technique was employed by Rimoldi. The 1964 measurements were confined to a single point in time, whereas Rimoldi measured all the gardens and then added any extensions which occurred during the survey period (about six [132] weeks) without deducting any areas which might have gone out of production. Secondly, 1964 proved to be a highly unseasonal year at Sivepe in that recorded rainfall in August exceeded that in December (1,542 and 1,416 points respectively) and the number of rain days was the same in each month (24). This disrupted the cycle of agricultural activities and prevented the customary clearing of forest for new gardens during dry weather. For this reason, figures for areas planted but not producing (see Table 4:1) approximate closely to Rimoldi's, whereas cleared and producing areas fall far short.[2] Thirdly, two household heads within the group surveyed in 1964 had been absent from the village for two to three months before the data were collected, and third's activities were partially diverted by his involvement in a contract to build a house at Saiho hospital, and most of the community were involved for several weeks in building the new road to Sasembata and in erecting classrooms on the mission station.

● 245 (b) Economic trees and livestock

The holdings of economic trees (Table 4:3) indicate their importance for subsistence. Breadfruit comprises a very large proportion of the intake of starches at the onset of the dry season and only when most of it has been harvested do the people resort to sago-making. Areca is chewed by almost all adults, while the milk of the green coconut is drunk as refreshment and the meat grated to use in preparing staple foods. Hauga (Canarium sp.) nuts, when in season, are gathered and consumed largely by children.

[130] All economic trees, except for the recently introduced orange, grow wild in the bush but are claimed as individual property. Several, particularly coconut, areca palms and hingi trees, are also planted in gardens and on the periphery of the village.

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[1] See Barrau 1958:32; Brookfield 1962:245, 251; Bureau of Statistics 1963:14.

[132] [2] Similarly, a long unseasonal dry spell occurred during the last few weeks of Rimoldi's survey with the consequent extensive clearing of land for new gardens.

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Most households keep a few domestic animals which may enter into the network of exchanges. Piglets and chickens are frequently given to others who then become responsible for them until maturity.

Table 4:3

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Sivepa: economic trees and livestock, 1964*

Item	Average	Range
Breadfruit	26	12-42 trees
Areca	18	6-40 "
Coconut	18	6-29 "
Hauga	13	6-21 "
Pandanus	12	nil-32 "
Sago	9	6-15 "
Hingi	3	1-6 "
Mango	3	nil-4 "
Orange	1	nil-4 "
Pig	2	nil-4 animals
Dog	2	nil-4 "
Cat	1	nil-3 "
Fowl	1	nil-5 "

* Seven households.

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(c) Cash crop gardens

Cash crop holdings in Sivepa have been described by Rimoldi (1966:83-93). Briefly, they comprise four individual holdings of matûre coffee and a communal rubber planting of 2.4 acres, established in 1920. At the time of the survey, the rubber was being exploited by three adult members of the sample, together with some other villagers, on a rotational basis.

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Since Rimoldi's survey, two unsuccessful attempts to establish individual rubber plantings have been made[1] in addition to a major attempt to establish a communal cash crop garden of 3.75 acres. This latter attempt, initiated in 1963, was finally abandoned in March 1964. It arose out of the village councillor mis-interpreting a DDA officer's description of the Yega scheme[2] at a meeting of the Higaturu Local Government Council and it proved, in terms of

[1] These were motivated by the opinion that trees in the communal planting were being permanently damaged by unskilful tapping.

[2] See Dakeyne 1966b.

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A.[See Category 491, pp. 34-37--Analyst]

241 592 bananas, corn, cucurbits and pineapple. The change is probably due to the storable qualities of yams and Xanthosoma and the comparatively small amount of attention required during growth by each of the crops showing an increase. The slight increase in corn plantings is due specifically to one man sowing a 'catch-crop' in a garden cleared for coffee. The increase in the number of yam vines, on the other hand, is evident for several households. Although two households had no Xanthosoma, the others all exceeded the 1962 average. Of the four households which had more than 20 pineapple plants, two intended to market some of their produce.

245 592 231 (b) Economic trees and livestock

Table 4:10 shows the average holdings of economic trees and livestock per household. Following the change in the village site, all householders planted several coconut palms around their homes

Table 4:10

Inonda: economic trees and livestock, 1964

245 231 592

Item	Average per household* Bearing**	Planted in last year	Range (bearing only)
Breadfruit	3	nil	nil-18 trees
Areca palm	1	6	nil-8 "
Coconut	17	25	6-35 "
Rauga	1	nil	nil-3 "
Pandanus	5	nil	nil-16 "
Sago	4	nil	nil-9 "
Mango	1	nil	nil-2 "
	Total		Range
Pig	2		nil-1 animals
Dog	6***		nil-2 "
Cat	2		nil-1 "
Fowl	7		nil-3 "

* Eight households only. Information was not obtained for one household, a widow originating from Urio village. It is unlikely that she possessed rights to trees in Inonda (cf. Crocombe and Hogbin 1963:47), although her sons would.

** One householder claims extensive holdings of the specified trees on the lands of his home village of Hohorita. These holdings, which he did not exploit during the survey and which are excluded from the above figures, include: coconuts, 30; areca palm 10; sago, about 50; breadfruit 20; pandanus, at least 50. The claimant is the sole survivor of a large family killed when Mt Lamington erupted.

*** Including 3 pups.

245 and around the village paths and square. Subsequent to the construction of the copra-drier, one man planted 30 coconuts as a first step towards a larger holding of commercial coconut trees. In total, 198 trees were planted by the villagers during 1964. Five householders also established nurseries for areca palms during 1964 or planted them in gardens or the forest. Forty-nine areca nuts were planted, but some may not thrive as conditions at Inonda are less suitable for areca than for coconut palms.

231 All the domestic pigs owned in 1962 had been slaughtered prior to the 1964 survey. The local government council has stipulated for some time that domestic pigs should be penned and the Inonda councillor insisted that this be done. While the matter was under discussion a Jego'undi man died and the villagers decided to avoid the trouble of constructing pigpens by slaughtering all the pigs in a funeral feast. In November 1964, two women were given piglets by relatives.

Three households own a few poultry. One man killed or gave away several during the year. Two men and one woman own dogs, all used in hunting.

(c) Cash crop gardens

245 Three of the nine household heads have acquired holdings of mature coffee trees from their fathers (in one case a classificatory father). Two of these were reduced by a realignment of the road and the owners were compensated in cash by the Administration. Another man, who completed the farmer trainees' course at Popondetta agricultural station, began planting cocoa on land belonging to another lineage but was prevented from continuing by the mother of the future main rightholder[1] and in 1964 almost all the young trees were overgrown with weeds. However, the same man has planted 30 coconuts close by, unknown to the rightholder, and he intends to increase this to 100 palms at least. He has also cleared an area of his own land and planted 202 coffee trees, again as the first instalment towards a larger holding. The seedlings were given to him by his step-brother who had inherited 335 coffee trees.

In November 1964, four of the other six male household heads (including the three men with producing trees) decided to clear a large area of secondary forest for individual coffee blocks on the south bank of the Sambogo river. Two men began clearing, but work was suspended until an agricultural officer could approve the site and soil quality. By the time he visited in January 1965, the men had decided to plant instead in the food gardens near the village after these had been fully harvested. A fifth householder had

[1] Crocombe and Hogbin 1963:75.

245 intended to do this from the start. The other male householder, whose patrimonial land is in Hohorita, intends to return there and plant (although this intention has been current for some years).

The trade store owner, who is head of household 23, began construction of a copra-drier in January 1964 and sought advice from a kinsman living nearer the coast, where driers are more common. Subsequently, he asked the DASF to send a fieldworker to help in the construction, which took place in August, and this, unlike the initial attempt, was on a communal basis. Even so, the leader still intended to produce copra on his own account, leaving the others to follow his example if they wished. The other men, who individually had access to fewer trees, insisted that production should be on a communal basis and that the proceeds should go into a village savings account.

Individual household involvement in cash cropping is shown in Table 4:11. The widow in household 18 is involved in cash cropping only to the extent of assisting her step-son (head of household 16) in weeding and picking coffee. In return, he gives her a small share of the proceeds. She also helped her eldest son to clear and weed his new coffee garden.

The widower in household 19 gave his original coffee trees to his eldest son in household 17 and staked out an old food garden to plant more coffee of his own, but he had not started by the end of the survey. The head of household 22 has worked frequently for the settlers and now intends to plant his own commercial trees.

Table 4:11

Inonda: participation in cash cropping, by household

Household no.	16	17	18	19	20	21	22	23	24
Individually-owned and exploited coffee trees	335	105	-	-	-	-	-	230	-
Assisting in exploiting coffee	-	-	yes	-	-	-	-	-	yes
Newly planted coffee trees	-	-	-	-	-	202	-	-	-
Mature coconut palms for subsistence and copra	19	33	-	35	6	8	10	117	10
Newly planted coconut palms for copra	-	-	-	-	-	30	-	-	-
Recently planted cocoa trees	-	-	-	-	-	17	-	-	-

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in [484] two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the householder alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7.16)

Isemba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Isemba was absent for 85 days, 9% per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

Isemba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites. 361 178 166

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector. 241 178

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine. 433 184 [461]

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work. 245 [241]

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Nevertheless it is incorrect to apply Salisbury's proposition (1962:216-20), that the change from a stone to steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks, as further evidence for labour availability. Apart from the fact that the proposition itself is not based on quantitative data and must be regarded only as a hypothesis, if, for the sake of discussion, the factor of 3 be applied to time spent in clearing, fencing and construction (the main axe-using tasks) in Sivepe and Inonda, an additional 10.8 and 11.6 hours per man-week respectively would be required for the work with a stone technology. Since 10.7 hours in Sivepe and 10.0 in Inonda are already being directed to the external sector each man-week virtually all the labour time made available as a result of this technological change is in fact being utilised.

While there is no evidence from the activity patterns to suggest any seasonal conflict in the labour requirements of cash and subsistence cropping there is, nevertheless, some inconclusive data from both villages to suggest that a substantial extension of cash-producing activities would conflict with the requirements of the subsistence sector. In Sivepe the processing of coffee - the most labour intensive of all cash cropping work - and the harvesting of rubber typically occur early in the day and so before the start of the normal daily routine, suggestive of the fact that extra time is 'made' to carry out these tasks.[1] At Inonda it appears that where a household head engages in full-time employment for more than two or three weeks the family finds difficulty in maintaining its food gardens and so meeting all its obligations.

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Given that the development of cash cropping bears a direct relationship to activity patterns the data suggest the basic issue to be not one of absolute availability of labour but rather of the organisation of labour and time. The hypothesis is suggested that in a primarily subsistence-oriented economy, those cash-producing activities which do not demand a significantly different and longer work routine will be preferred. The basic feature of this routine is that one activity need not be pursued to the exclusion of others and each can be interrupted at will. So the Orokaiva working day (and week) encompasses a wide range of tasks, each pursued for only a relatively short period of time. As with the Aitutaki villagers of the Cook Islands, 'commercialization has led to few appreciable innovations in the cropping system, land tenure, technology or labour' (Johnston 1967:68).

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The present relative adjustment of cash to subsistence cropping may only be a temporary feature of the village economy and the fact

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[1] However, a higher yield of latex is also obtained by tapping early in the day.

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Early in 1966 DASF in Popondetta, working through the OCGS, recommended the establishment of several fermentaries through the area which would purchase cherry. The object of the scheme was, firstly, to increase the cash return to the grower by eliminating time-consuming and inefficient pulping at the village level and, secondly, improve the quality of locally-produced coffee. The Orokaiva expressed their opposition to the proposal; a reaction which is readily understandable in terms of the problems inherent in marketing cherry, with its much lower value per unit weight than parchment.

Although the transport situation is largely beyond the control of the individual grower, the low level of productivity characteristic of the handling of cash crops is not entirely so. DASF at Popondetta estimate optimum yields of coffee to be of the order of 2 lbs of parchment per tree. The yields realised at Inonda during 1964 amounted to only about 0.37 lb per mature tree although those at Sivepe, where the ecological conditions are more favourable and the cash economy more dependent on coffee, exceeded 1.5 lbs. Although dissatisfaction with prices obtained early in the season frequently deters growers from harvesting all their coffee, as does the obligation to reciprocate with cash any assistance received in transporting it to the selling point, returns to labour are reduced by inefficient techniques. Fig. 13:1 indicates the typically haphazard movements of coffee pickers, where there is no systematic removal of cherries and a tree may be returned to several times in the course of a single period of harvesting. Due to a lack of pruning trees often grow 10 ft high or more, leaving many cherries out of reach. The lack of suitable receptacles in which to put the harvested product further reduces the efficiency of the picker - cooking pots and their lids are often used, leaving only one hand free for the actual picking. Even more inadequate are the techniques of hand pulping often used.

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Similar problems are associated with rubber in Sivepe, although a reasonable level of production is maintained.[1] The communal planting contains a large number of closely spaced, self-sown trees which inhibit movement. Ignorance on the part of a number of the users as to the correct method of tapping has resulted in the scarring of many of the trees and a consequent reduction in their yield. As with coffee, trees are tapped at random, while the quality of the latex produced suffers from a lack of proper equipment.

Finally, at Inonda, the first quantity of copra produced was spoiled by smoke when husks were added to the fire. Where there is a communal element, difficulty arises out of a failure to delegate

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[1] See Rimoldi 1966:93.

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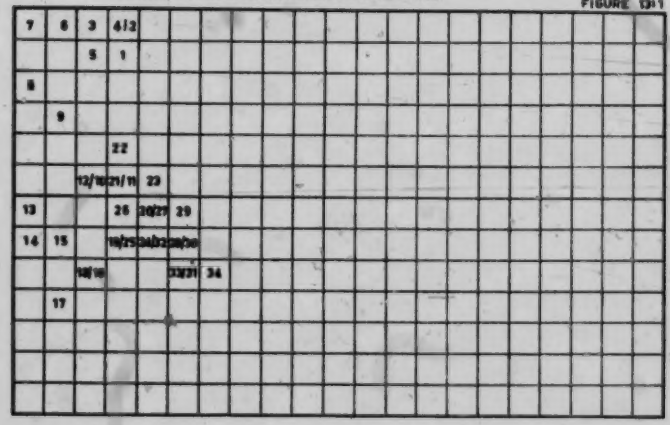
SIVEPE: THE TECHNIQUE OF HARVESTING COFFEE

THE SEQUENCE OF MOVEMENT OF ONE MAN BETWEEN TREES OVER A 1.6 HOUR PERIOD

EACH SQUARE REPRESENTS ONE TREE, THE TREES BEING SPACED AT 8 FEET INTERVALS

FIGURE 13:1



433 responsibility effectively, but, in all cases, a serious problem is lack of knowledge on the part of the cash cropper. Such recent developments as the copra scheme at Inonda and the communal garden and individual rubber plantings at Sivepe clearly reflect a continuing interest in commercial agriculture. A general failure to develop the appropriate skills would seem to be explained by the inadequacy of DASF extension patrols. Before the establishment of the Ombi-Tara scheme[1] the department did not formally concern itself with village rubber, while educational patrols in connection with the other crops are infrequent, and so little time is spent in each community that the benefits accruing from instruction are slight.

Table 13:1 details some returns to labour from the production and marketing of cash crops in Sivepe and Inonda. Rubber emerges with the most favourable return, at 12c per hour, primarily on

[1] See Horawetz 1967.

[TEXT CONTINUED ON PAGE 292]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 13. Pulping coffee in the creek at Sivepe.

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Plate 14. Collecting latex in the communal rubber plantation at Sivepe. Most of the mature trees are badly scarred by incorrect tapping.

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Genesis of the Yega Scheme

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242 The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

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[491] On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was re-opened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Mixon Kairembora, who fully approved of the cocoa project.

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The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

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178 Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not-represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blockholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to [435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Picking	Pods*	Net wt. lbs.	Amount received $	Picking	Pods*	Net wt. lbs.	Amount received $
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Dewhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).
**Bapa man, not member of Yega Scheme.

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Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

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Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

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Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5)[A] the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

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Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p.43--Analyst]

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(614) The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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461 Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

(434) The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

161 in 1960[1] compared with the distributions determined by personal
162 interview in November 1962 and July 1964.

361 Table 4 and Figs 4 and 5 illustrate the movement of people away
166 from the coastal villages and the rapid increase in number and size
242 of inland villages which followed the implementation of the Yega
245 Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 The movement inland began immediately after the start of clear-
166 ing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed
[423] hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). A Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6). B A

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Figure 4

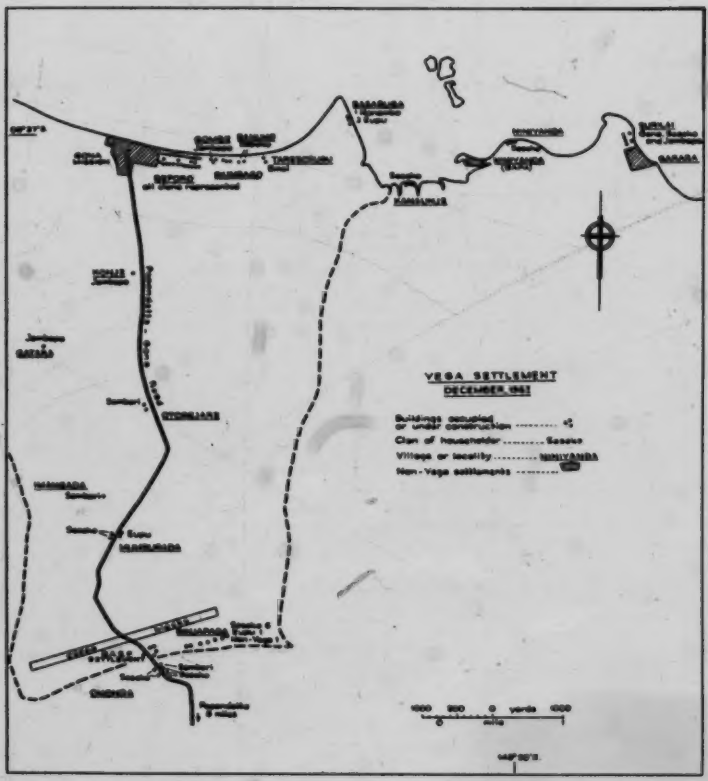

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Figure 5

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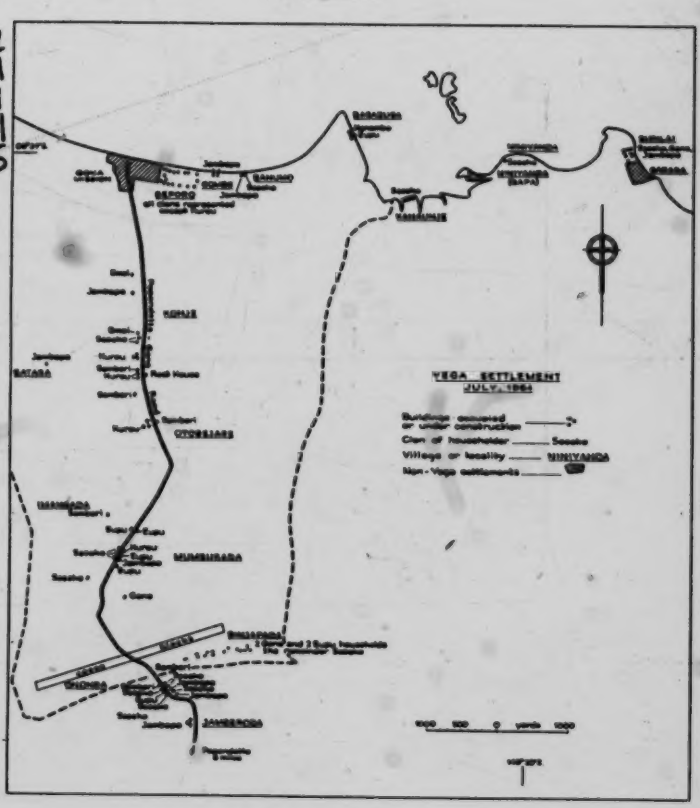

10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

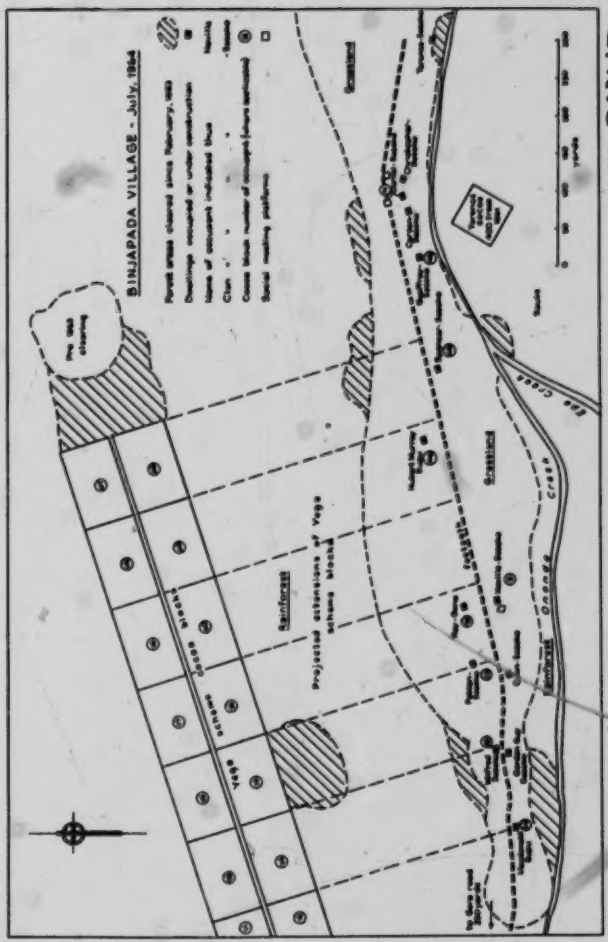

Figure 6

Figure 7

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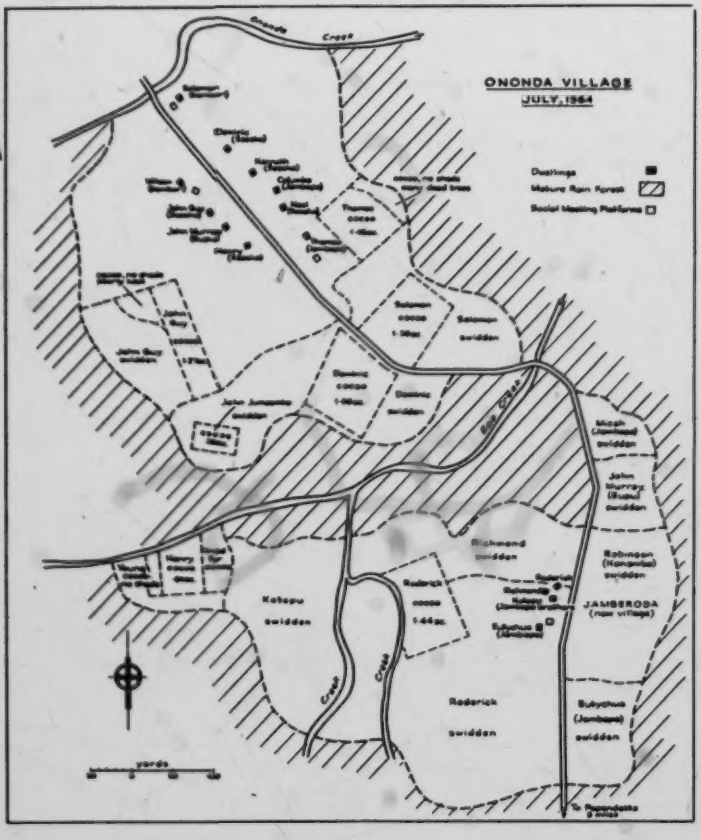

361 166 followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa blocks. After establishing their homes in Ononda village most of these villagers cleared rain forest in the Ononda area, thus establishing their cultivation rights to nearby areas of land. Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

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Extension of the Yega Scheme

178 245 The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

245 In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 [614] [613] A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [247] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Catara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 619 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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(iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

(433) (ii) the production of crops for sale;

(242) (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

(361) (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

226 Only three Inonda men exercise fishing rights out-
423 side Inonda. The first two are members of the Jego'undi sub-clan who were given rights to fish in the Sambogo river from Ere creek to Mosou village by their mother's brother along with the hunting rights already described. The part of the river concerned is adjacent to the part held by the Andiriha sub-clan. As Mosou village is situated close to the Jego'undi portion of the river, some Mosou men who have distant kinship connections with the Jego'undi are permitted to fish there. All parties confirm that no payment is made for this privilege but we have observed that the Mosou people make gifts of betel nut and sago to the Jego'undi. The Inonda councillor was given exclusive rights to fish part of the Sambogo river (adjacent to the Andiriha part but at the other end from that held by the Jego'undi) along with hunting rights to the surrounding lands.

241 Cash crops: Only small areas of land are being used for cash cropping (see map page 109A). In 1955 three households planted a total of 801 trees on 1.85 acres of land situated near the Girua river on Hohota lands and these trees
244 are now in production. They are planted on land to which the
423 planters previously held only permissive rights of occupancy, although since 1961 these rights have been strengthened by registration under the Higaturu Local Government Council land registration scheme (which is explained in Appendix A). The problems associated with this land are discussed on pages 72-75. In 1961 another man planted 0.41 acres of cocoa on Inonda land in which another lineage has prior rights, but this will not produce for some years yet. A fifth man has staked out 0.6 acres of land at Inonda which belongs to a lineage other than his own, but because of the resultant dispute he will probably not plant coffee on it as originally intended (for details see page 75).

245 The small amount of coffee produced is sold in the parchment stage. If it is assumed that each tree will produce half a pound of parchment coffee annually then total production for the village will be approximately 400 lbs. The income from this, if parchment coffee is sold at 1/- per pound, would be only £20.0.0 per year for the whole village. Details of production during the past three years are shown in Table 4.

A [See Category 102, p. 109--Analyst]

Table 4

Inonda coffee production(1)

Year	Household No.	Weight (lbs. parchment coffee)	Price per lb.	Value
1960	1	242	1/2 and 1/3	£14.13. 4
	3	61(2)	" "	3.14. 4
	4	103(3)	" "	6. 3.11
	Total	406		24.11. 7
1961	1	246	1/-	12. 6. 0
	3	76	1/-	3.16. 0
	4	24	1/-	1. 4. 0
	Total	346		17. 6. 0
1962 (to Aug.)	1		1/-	6. 0. 0
	3		1/-	3. 0. 0
	4		1/-	4. 0. 0
	Total			£13. 0. 0

(1) Details of sales were obtained from receipts issued to producers by the Orokaiva Coffee Growers Society (for sales in 1962) and by the Department of Agriculture (for sales in 1960-1). Information for 1960 and 1961 is probably complete (except for sales from household 4 for 1961). Figures for 1962 include producers' estimates of the value of coffee they harvested during the first eight months of the year.

(2) Part of this coffee was sold by the brother of the head of household 3.

(3) Part of this coffee was sold by the step-father of the head of household 4.

231 pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring [435] villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

241 The most important trees in the Inonda subsistence
245 economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while [124] the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work, 423 they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

423 In addition to the rights of those born in Inonda, some
241 wives claim rights to use economic trees in their home villages.
245 They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

miles away and another to collect betel nut about fifteen miles away.(1)

The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

Unlike in other parts of the Orokaiva country sago does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights. Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

A total of 21 sago trees was accounted for on Inonda lands, but the bulk of sago supplies is obtained from outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

423 Lakes; those who are related to the Sauhaha people use trees on
241 the Sauhaha land, and those who are related to the Tandai'undi
245 use trees on their land. Three Inonda men claim rights in six sago trees in their mothers' villages.

Although informants usually refer to trees as being individually owned, in fact they are more often owned by siblings (or half-siblings of the same father) and merely referred to in the name of the eldest male sibling. Thus all but three sago trees in Inonda were owned by more than one person. Moreover, it is apparent that the Inonda people recognize implied qualifications to these rights. The resident adult children of the 'owners' are regarded as having the same rights of use (but not of control or disposal) as their fathers. Qualifications are particularly noticeable in the case of sago and a man who is not using a sago tree can scarcely refuse it to a resident cousin or even an unrelated neighbour who requires it. As a sago tree takes about fourteen years to mature, it is not unusual for a man not to have one ready when he needs it. Also, as a large quantity of food is obtained from each tree, it is common for villagers who are not closely related to exploit jointly a tree which belongs to one of them. During our stay two sago trees were harvested. One group of four men (who belonged to three separate lineages of the same clan, but one of whom lived in Hohota) harvested a tree belonging to one of them. Another man harvested a tree which belonged to his wife's family and was growing in the neighbouring village of Urio.

The village people claimed 104 coconut trees in Inonda and said that (excluding children absent at school) only two non-residents owned coconut trees there. Both were contingent members of the Inonda sub-clans. One Inonda man has 4 trees on his father's lineage land in Hohota, and two others claimed a total of 15 trees in the villages of their respective mothers. Two others claimed that they had rights to trees in their mothers' villages though they had not exercised the rights and were not sure how many trees were involved.

Betel nut does not grow well in Inonda and there are no bearing trees in the area. One man still uses three trees which he planted on the land of a neighbouring tribe in the

mountain area while taking refuge there during the war. Two others have been allocated specific trees in their mothers' villages. One obtains supplies from his wife's village, but most Inonda people must obtain their betel nut by barter or purchase from villages further inland.

Only two households own hauga nut trees in Inonda (a total of 8 trees). One man has two trees on his lineage land in Hohota village, one has four trees in his mother's village and there are some hauga trees in Aramba which Inonda people harvest on visits there.

Breadfruit are relatively plentiful, 52 trees being noted, not including 2 at Ajoro which are owned by one Inonda man, and 2 at Hohota by another. Some 37 pandanus trees were recorded in addition to one each at Hohota and Aramba. We found no instances of pandanus trees being owned by non-residents other than men who were contingent members of the Inonda sub-clans. On the other hand several breadfruit were owned by the children of women who originated from Inonda but had married elsewhere.

Non-monetary valuables

The Inonda people recognize two categories of non-monetary valuables; firstly hambo which are ornaments made of sea shells, pigs' tusks, dogs' teeth etc., and secondly di which are ceremonial head-dresses made of feathers. Hambo and di are exchanged at certain ceremonies and sometimes given in recognition of a service rendered or as a token of apology. They can also be acquired by barter, and there is still some trade in shell ornaments from the coast and in feathers for head-dresses from the mountains. In recent years, however, valuables have frequently been acquired by cash purchase.

It is difficult to value hambo and di in terms of cash and whatever formula one adopts has its inadequacies. It is nevertheless important that some attempt be made to equate them, for valuables and cash are in some circumstances acceptable substitutes for one another (especially in meeting traditional social obligations) and the acquisition of the one is to some extent in competition with the acquisition of the other.

423 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

[247 613] There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening areas of individuals. People frequently plant food crops on the land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:778.

apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

(1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

(2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available [461] to a limited extent at a rate of £150 per year in town areas and [465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

Capital: Almost no capital is used in primary pro-
471 duction in Inonda. The few tools needed for small scale produc-
245 tion are easily acquired from current income, the land is not an [654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De- [474] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

Health: Du[illegible]g the period of the survey about 7% of
164 time was accounted for by sickness and caring for the sick, but
461 details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

[466] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept
[511] indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

keep warm. As a consequence they slept much of the day following.

Non-traditional experience: Table 14 below shows that there is a correlation between non-traditional experience (in terms of years of paid work and education), and the planting of cash crops. Table 15 shows that there is likewise a correlation between years spent outside the village and the planting of cash crops. Absence from the village is generally but not invariably associated with work or schooling. The data presented in the tables suggest that an increase in non-traditional experience is associated with increased interest in cash cropping.

Table 14

Comparison of non-traditional experience (in terms of paid work and schooling) with planting of cash crops

Total years in paid work or school	Number of Coffee or Cocoa Trees	Code No. of Household Head
45	see note (a)	8
17	335	1
16	288	4
11	150	7
10	0	6
8	178	3
4	0	5
0	0	2

(a) This man is a stranger in the village, but he is currently planting extensive cocoa gardens in his village of origin.

Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
36	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager,(1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

(1) He has planted 1,161 cocoa trees.

65] support is an essential prerequisite to land reform in a demo-
423] cratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

65] From its inception the council expressed the view
294] that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

[245] During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an [348] agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

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(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash to pay hired labour, and are thus forced, willingly or not, to
465 exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
429 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	702
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	1,800
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

(439) An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on
[654] loan from the Department of Agriculture. The baling press was
[402] provided on permanent loan by a local planter.
[454]

On 27 October 1964 an Ombi-Tara Village Savings Account was opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

245 [435] Individual planting of cocoa was tried next, with twenty-one people planting between 20 and 1,300 trees each. The average plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 464 An Ombi man named Charles was instrumental in persuading the people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility 245 249 of establishing a tenure conversion scheme at Ombi-Tara. He planted 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 249 Conversion at Ombi-Tara began with a visit by a resourceful Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

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[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

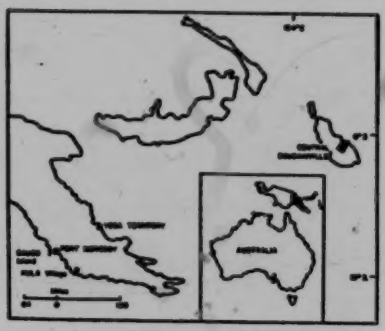

Fig. 1. Location of the three case studies

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Inonda

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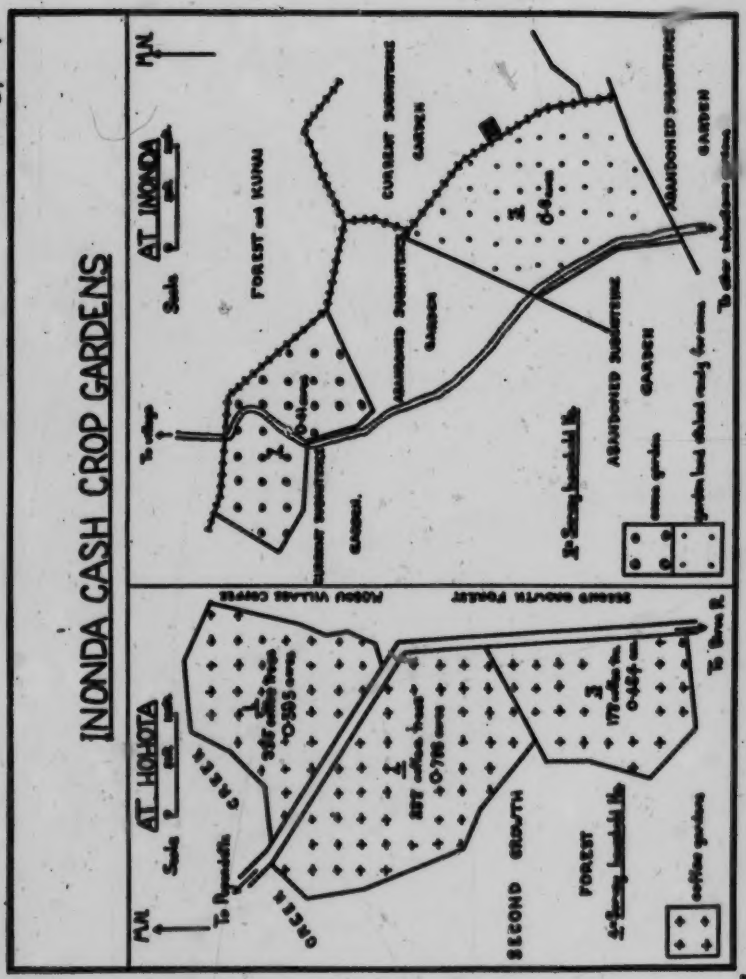

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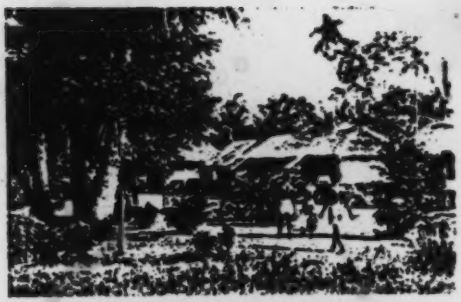

Fig. 10. Scene in Bapore village. In left foreground are coconut palms. The tall slender palms behind the houses produce areca nuts, one of the ingredients of betelnut

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Fig. 11. The new village of Onanda under construction near the cocoa blocks five miles from the coast. (Picture taken in January 1962.)

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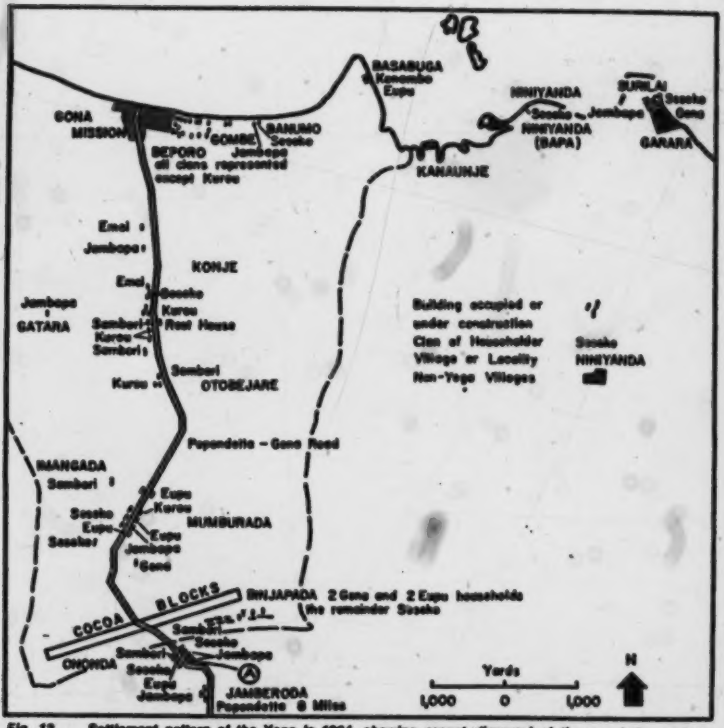

Fig. 12. Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11

(R.14-A)

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1955, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
[614] hunting land. It had belonged in the past to
[726] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

245
179 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of supervision and advice from European and [657] indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn [434] cash from commercial agriculture. From the time of earliest contact with Europeans some 066 of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away 178 working. Those who are married are accom- 592 panied in almost every instance by their wives 166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega [446] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve- 178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with [797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has [464] enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepa there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepa family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepa	Inonda
Coconut	Sago
Breadfruit (oga and eumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Nauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepa, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack of betelnuts is felt very strongly, as the Inonda people are as
276 fond of chewing it as other Orokaiva. Hence, it is usually obtained
438 A [See Cat. 116, p. 213--Analyst]

276 from relatives who live in the mountain districts or also obtained
439 by barter, or bought from other villages or at the Popondetta
market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda
people owned only 21 trees so that the bulk of supplies was obtained
from other areas, e.g., from wild sago trees over which they claim
rights. In Sivepe, the total supply is in the vicinity of,
probably, 300. This suffices for the local need, both as an
occasional supplementation of the food supply and for building, when
a great quantity is needed.

[799] The special position of sago among economic trees was shown
clearly in Miss White's description of the building of Sasembata
mission station shortly after the eruption. This was a big project
in which all the surrounding villages (including Sivepe) collaborated.
Labour was given free and so were all building materials--apart
from sago for which payment was expected and made. I was told by
informants this was because sago is a cultivated, not a bush tree.
During my field work period, the mission again needed sago roofing
for expansion and repair of buildings, but this time no payment
was made. However, each household was asked for a contribution of
only two strips of roofing. Thus, it was again treated as a
resource of special value as other materials were not supplied in
such strict rations.

The ajimo tree, used for manufacturing bark cloth was not
reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing
costumes nowadays, in both villages, these dances still take place
from time to time. The women's clubs have stimulated the production
of painted bark cloth for sale, but this has not led to extra
plantings. Sivepe's supply of ajimo trees was only one or two
for most households, sufficient for an occasional festive garment
with none to spare, but there was an abundance of ajimo in some
other villages in the Sasembata district. Here we may notice a
definite change between the pre-eruption period and the present
at pre-eruption Inonda and because at Pamba, bark cloth was still
the daily wear for everybody, so that the ajimo was an important
economic tree. With this exception, there would seem to have been
no change in the resources of economic trees of local origin.

The three introduced cash crops of significance in the two
241 villages have been rice (pre-eruption), coffee and rubber; in
177 both villages, one man grew a little cocoa. These industries,
which developed in intensive interaction with Australian authorities,
are perhaps better discussed in detail in a later chapter when these
[243] relationships are analysed. Rice plots were developed in the period
between the second world war and the eruption; the plots in both

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
[241] the Northern District has a long and somewhat unhappy history which will be referred to later; at the time of the eruption, just before the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory
[474] was no longer buying indigenously grown rubber, but a rubber cooperative was set up early in 1967, with the encouragement of the Department of Agriculture, in a village about one mile from Sivepa. The Department of Agriculture was also encouraging the people to plant superior Malayan rubber trees and two men had planted 250 and 72 trees respectively. Rimoldi reports that "members of the clans now represented in Sivepa and Binduta" owned four plots ranging from less than half an acre to about three acres in area.

Since that time, however, a new plot has been established, four and one-half acres in size, on which theoretically seven men were to establish rubber stands. The Malayan trees were planted here, as well as self-sown trees from the other plots which were dug up and replanted. These plantings occurred shortly after Rimoldi left. If the new cooperative venture succeeds, it is likely that the new plot--most of which still remains unplanted--will be exploited, but people were clearly waiting to see whether sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the setting up of a coffee cooperative, first under the Higaturu Local Government Council and later independently. First plantings in Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that in 1964, there were 1,100 coffee trees in Sivepa, owned by five growers. Crocombe and Hogbin reported 801 trees in Inonda in 1962, owned by three households. Since that time, Inonda has not added to its plantings, but Sivepa, along with the whole of the Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from five to 14--every able-bodied man in the vigor of life has his coffee garden from which he derives an annual income of between $50 and $100. This increase is the result of vigorous encouragement of plantings by the Agriculture Department, a change of ideology under the impact of the Local Government Councils and a great improvement in the marketing arrangements. In 1966, Sivepa coffee was collected and promptly paid for in Garambi village, about 15 minutes' walk from Sivepa. I did not take another coffee census

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepa and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepa men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepa men went to Port Moresby for employment and three returned; one Sivepa man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepa; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accomodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepa men were working on plantations; today, Sivepa people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepe and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245] [494] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasumbata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower

177 at Sivepa has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters;
177 these men have certain skills upon which a community draws when large
335 community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of

[212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepa can be read and understood with the help of at least a junior member of the family; and can be replied to. While

177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking

[192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number"

177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

471 well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the
241 Australian government's insistence on the planting of village quota's
621 of rubber and coconut. Here, as I explained, an undivided area was planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called
427 tane. This is common procedure also when subsistence crops are planted. Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepe (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepe for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

479 In the neighbouring village of Sasembata, where a rubber cooper-
245 ative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepe men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

479 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
423 each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [926] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Wasefa, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended [425] as one of the new style resettlement villages. They were given some land to cultivate and stayed for several years. When the government [245] began to encourage the planting of coffee trees, the Dapari immigrants planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible [426] to plant trees on borrowed land provided the owner consents and the produce from that tree will then always belong to the planter, even [422] when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

657 It is a ticklish question whether this rule similarly applies
731 to coffee trees which differ from the traditional kind of trees in
423 two ways: first, in that they occupy the whole of a piece of land and
●245 not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practice of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Numuni is one place where they were issued.

657 After planting their coffee at Numuni, the Dupari people began
731 to depend for their subsistence gardens on land they owned in their
423 own natal district, which was an hour or so from Numuni. All the
578 Dupari people, except for the Jegase clan group of Dupari, went back
629 to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Numuni. Their position was more favourable, as they owned land near Numuni; hence they had no reason to go back to Dupari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Numuni man had made a large gift of land on which all the Dupari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dupari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dupari and had subsistence gardens there, but they returned to Numuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Numuni relied on traditional custom whereas Dupari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Numuni people had begun harvesting coffee from the Dupari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Numuni) and that Dupari had offered to sell the coffee stands to the Numuni owner of the land, and that the owner was prepared

621 another source of annoyance. Some village groups requested permission
657 to move from Koipa and this was granted. A report on the file refers
731 to the clearing of new gardens South of Koipa (and 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bevevaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict than it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

This second phase of resettlement became possible because the
657 first phase was not accompanied by any renunciation of land rights,
731 or foreclosure of the possibility of return. At no time did the
423 resettled groups give to anyone else a permission to occupy vacated lands nor accept payment for any of their land or its products. After
● 245 this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dopari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dopari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise
[428] be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepa, most men have some land of which they are indisputably the owners, but at the same time most of them also have useholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepa showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Soho clan chief who had

planted coffee on his mother's brother's land. He [illegible] that this mother's brother was dead and nobody except himself any claims on the land. The second man, who had planted on his wife's land, was not so fortunate. His wife's relatives live in Sivepa and lost no time asking for the return of "their" land as soon as the coffee was harvestable. He settled for a compromise: he planted coffee on some of his other land and promised his affines they could have their land back as soon as his new trees began to bear. As far as I could discover, this was agreed to.

It has been argued by several students, especially Crocombe and Hogbin, that title improvement is a necessary requirement for the success of cash cropping in the Northern District. My own findings suggest that the importance of title improvement varies a good deal between villages. Where, as in Sivepa, a fair amount of land is held under an undisputed title, no great gain in productivity can be expected from the formal registration of these good titles. In other places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Numuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Numuni is stealing their coffee, could any judicial officer convict any person from Numuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

The government made a fresh approach to the problems of indigenous land tenure with the passing of the Land Titles Commission Ordinance 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments. Under these provisions a Land Titles Commissioner has been appointed at Popondetta whose task it is to determine the land titles in specifically designated "adjudication areas." The Commission prepares an adjudication record showing what land in the adjudication area is native land and the ownership of each piece of that land. A native may then apply for registration in his name of any native land included in the record by agreement, but no titles can be registered in a piece of land which is less in either area of frontage than the standard prescribed for the purpose for which the land is likely to be used. In practice, this has meant that every individual holding registered by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hohorita in 1966. Hohorita is a resettlement village harbouring some 12 clans;

the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepe and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself purchasecoffee but when the Higaturu Local Government Council was formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepe coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

654 and local field trials are being carried out on the volcanic soils of the Northern District.

242 Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural 242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve [874] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The 435 violent fluctuations in price for this product do have a somewhat unsettling effect on growers, though I could not observe very much of 245 this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu 657 Council to deal with. I have already mentioned that government officers 423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were 653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.)[A] Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepa, some children had started going to the Jesembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepa at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepa had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepa, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepa, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepa, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one
united big village. When the clans came over in 1959, they followed
the same pattern as the Sorovi immigrants followed in Sivepa: they
arranged their houses so as to maintain, in a subtle but unmistakable
way, their own identity. They formed in effect a second rectangle
which formed a harmonious continuation of the first rectangle but which
was separated by just half a chain. In 1966, the front and the back
half of Hohorita held separate feasts, each inviting a different
village. In 1967, the councillor made plans to clear the gap between
the two halves, remove the two old houses which emphasised the separation
and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves
in Hohorita, leaving their old village behind. I think it was they
[764] who filled the gap between the rows. The councillor had long been at
pains to close down the small villages of Sombou and Kakita and Sombou
[775] was finally persuaded after the death of an old migrant who had remained
a pagan. As he could not be buried in the Christian cemetery, and
people did not feel disposed to carry out the full involved ritual to
placate the ghost, they preferred to shift their village. (They thought
that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
hospital, three miles from the Higaturu Council chambers. The school,
conducted by the mission on Hohorita station, offers an education to
the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had
appeared which were there for a special reason I have forgotten.
Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepa. The trees
were much better looked after, and there were far more of them. Every
[245] man had his coffee garden and an income of $100 per annum from coffee
was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepa, there were very few wives whose husbands were
permanently away working. The reason for this was that there are a
number of plantations quite close to Hohorita and those who needed
to work to pay off bridewealth, etc., could do so without going too
far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An
important resource of Hohorita, not shared by Sivepa, is the avail-
ability of good jobs within a reasonable distance; the fact that Hohorita
families do not break up in the same way as Sivepa ones indicates that
such separation is probably economically motivated. It is necessary
for a young man to earn his trophies, so to speak, which in the modern
world means money, but if he can do it without a prolonged absence
from home, he prefers staying home.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

grow. The woman may help by collecting coconuts once they have dropped on the ground and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasize that we are here being taught an ideology which requires the opposition.

The hero's second opposition centers on the culinary use made of the nuts. Areca has no place in the kitchen, in opposition to coconut. The fact that coconut is also often eaten raw would weaken the opposition but is suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that in ritual girls give areca to men, but the opposite statement is omitted, viz., that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, areca feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a "fact," but it is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra;—*ainge eto* ikena.

This passage, translated above, contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man; *because* coconut belongs to a man, *therefore* coconut is masculine; *because* areca is a girl, girls give areca. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
magical and juridical sense. Often he also leaves behind a wife for
167 whom he is saving brideprice but who meanwhile must be looked
after by his relatives. Money sent home therefore covers not only
feasting contributions but also the function of *simbari*. This is
not because village people would not perform such services free
of charge but because, when a man earns money, those who help
him earn that money are entitled to their share.

169 If we look only at the relations of production migrants have in
their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their
labour but this product lies entirely outside their conceptual
[571] universe. Yet these migrants avoid proletarianization in the full
sense because they continue to have a stake in the village
environment, which has its own economic, political and ideological
base.

435 Our remarks above apply similarly to the village cash-crop sector.
With the exception of coconuts, the use value Orokaiva see in
European cash-crops is either very limited or non-existent. Coffee
and cocoa are classified as non-foods, rubber latex as an unusable
substance. Even the coconut, though an important food when
fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of
these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those
who are pressed for time tend to give priority to coffee and to
partially replace their plantings of taro with 'German taro' –
less valued but less laborious.[21]

245 Growing coffee is not considered pleasurable like growing taro.
824 When suggesting to an informant that coffee trees have a sweet smell,
I was firmly told: "*We* think the smell is dreadful". Such feelings
461 go to show that the division between the spheres of use value and
exchange value is not purely analytical but corresponds to a con-
ceptual boundary between two models of life and work, and that
Orokaiva try to keep this boundary clear. Coffee is grown because
it takes far less time than it would to grow subsistence crops for
the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence
crops – surplus to requirements – is in fact sold in local markets
for consumption by local people, but growers take the same care
with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus
[179]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

551 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa;*
993 *donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena.*
177 *Ainge iru tu ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa*
539 *eto i gaipi oa, pure jirembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga eavora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo eavora. Eto donda matu nunuga ena avo indie irueteva avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto India. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora."* Robert, Sivepe, 1966.

694 20. The text: "*Embo handa piriti embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da piriti embo na samani eo pambuto re koto ea, amiko donda aravo porukau aravo pure puruna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

245 appears to be the standard response to lack of time, rather than foregoing coffee.

177 22. On New Guinea concepts of paid labour and the yield of such labour I
461 learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie
121 masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

191 24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

121 26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

472 27. This argument, and indeed this entire essay, is close in orientation to
474 Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture.

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with.

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres.

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

Appendix F

The Orokaiva villager's experience of cash cropping

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to
473 tubers, especially taro. The Australian authorities had hardly established themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post 1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

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(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongoesta, Iviusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

435 245 At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) [258] No copra [249] was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. 245 425 After the war the Akute'undi, as landowners, claimed the trees as their own on the ground that the community project had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the [578] right of the Akute'undi to the exclusive use of the coconuts as all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

245 258 249 Enquiries in fifteen other Orokaiva areas where coconuts were planted under the regulations show that most were never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 avenge f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture. 657 241

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with. 248 245 [249] [243]

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres. 245

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60 245 466 [651]

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1)

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it.

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2)

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group.

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951.

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only .... 241 [465] [243]

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee. [249]

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away .... 245 [625] [133]

245 [654] plots but agricultural officers intended to launch a campaign in the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 [434] Not all receipts for sales of coffee from the sample plots had been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organization of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepe and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepe and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasus and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepe neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepe. The growth of the [245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

249 planting was still being encouraged. The trees planted in the district were for long the only Papuan-owned rubber plots.

249 657 These trees had been planted under Native Regulation No.121, first passed in 1903 but not enforced in this division until the first world war. The legislation states that 'it is a good thing to plant coconuts and other useful fruits and trees.... The Magistrate shall fix the number of trees or the area of land, as the case may be, that the able-bodied man of each district shall plant' (Native Regulation Ordinance 1908-30).

46 249 657 [245] We could not determine how much compulsion was involved in establishing each of these 'plantations' but in 1921 the Assistant Resident Magistrate reported that planting in the district needed more supervision than one officer could provide and in 1922 the Lieutenant-Governor said that the threat of force was necessary to ensure the success of the policy of agricultural expansion under the regulation (Territory of Papua 1921-2). A particular reason for resistance in this district may have been the official priority given to rubber whereas it was reported ' the natives prefer coconuts due to their food value' (Territory of Papua 1920-1). A person who refused to plant was liable to a fine of 5 shillings or 6 weeks' imprisonment or to 3 months' imprisonment for a second offence.

249 The people of 3 villages, Pusahambo, Euru and Asina, were directed to co-operate in the planting of one of the stands near Sivepe. After the people of Asina had declined to provide land it was agreed that the plantation should be established on a parcel already partly cleared near Pusahambo. Part of this land belongs to Timunu people and part to Jegase; and although 1 Timunu lineage sometimes assert that they also hold residual rights in the Jegase section of the land, they appear never to have questioned the rights of the members of Jegase and Seho clan branches to the trees.

The only other plantation to which any member of the sample has rights is Korinasusu. This also is on land divided between members of 2 different clans, Jegase (Bebehupa lineage) and Usohu, who disputed the exact boundary when we enquired about it, but have generally been able to agree on the rights to tap the trees.

249 657 It seems that the rubber project in the district was designed so that, from the start, the owners of the rubber should themselves handle much of the production and processing. They were encouraged to plant lime trees 'so that they can coagulate latex with lime-juice and smoke a fair sheet of rubber for market' (Territory of Papua 1920-1). However, no facilities for the manufacture or processing of latex or rubber were introduced. The people claim that after the planting regulation had been enforced, the trees

249 657 stood untouched for about 20 years. In 1944 Humphries (1944:4) reported that 'the trees grew to maturity with very little attention from the natives and today they are being tapped for the first time'.

[434] In 1941 an agreement under the Transactions with Natives Ordinance (1893-1935) was made between a European planter recently arrived in the area and the villages with rubber stands, whereby he obtained exclusive rights to tap, collect and dispose of the produce of all the trees, while from 6 per cent to 12 per cent (according to ruling market prices) of the gross sum obtained by the lessee was to be paid to the owners every 6 months; in general this meant that the owners received 1 penny to 3 pence per pound. The contract was to extend for 5 years and the lessee was to have the option of renewing it for a further period of 5 years.

The arrangement became effective in 1941 but was interrupted by the Japanese invasion of the Northern District. In 1943 A.N.G.A.U.[1] authorized the lessee to return to restart production from the trees. Mann (1954:35) says that

[433] during 1944, under the supervision of the rubber division of the Production Control Board, tapping of some 250 acres of those smallholdings was organized. During 1945 production was over one hundred thousand pounds dry rubber, indicating average yields of about four hundred pounds per acre.

249 433 311 Various estimates have been made over the last 20 years as to the size and number of the rubber stands in the area. Mann's figure of 250 acres contrasts with the lessee's estimate of 110 acres,[2] and with Humphries' assessment of about 80 acres. There were 95 stands with a total of 7,721 trees listed in the 1941 agreement but during 1943-5 a further 42 stands were added so that most of the available stands were then included in the scheme.[3] In 1951 Belshaw claimed that there were roughly 6,000 rubber trees in the 'Periho' tribal area within what was formerly the Kokoda District and another estimate about the same time put the number of trees in this wider area at 10,000. The annual report of 1959 stated that 26,000 trees 'in the Awala area' were tappable. A

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[1] The Australian New Guinea Administrative Unit.

[2] Assuming this estimate and the figure of over 100,000 pounds for 1945 production to be accurate, we must conclude that the average yields were more than twice those given by Mann.

[3] It was reported by patrol staff that 'nearly all' the rubber stands were being worked from Awala in August-September 1943.

recent agricultural census listed 55 stands with 13,700 trees in the Saiho Census Division (which coincides roughly with the 'Periho' area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

The agreement between the lessee and the villagers was modified in 2 ways after the war. When the scheme was resumed in 1943 the Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

Until 1946 local villagers were employed by the lessee to tap their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

The Village Constables had been responsible for seeing that the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

241 177 [434] A new marketing scheme was devised after 1946. Any villagers who wished to tap their stands were provided with a tapping gouge and spout, anti-coagulate, treeseal and latex bucket by the same European planter. The tapper brought latex to the factory, was given a receipt and paid at the end of the week according to the weight of the dry rubber of the latex brought in. This system brought about a decline in tapping standards resulting in lower net cash returns for the villagers and seems to have been part of the background to their lack of enthusiasm for the lease noted by patrol staff in 1948.

433 241 In mid-1949 a report from the Popondetta District Office stated that all privately owned rubber areas were on the verge of closing down; production costs were high and market prices had fallen considerably.[1] The advent of the 'price-boom' later, caused by the Korean war, coincided with the eruption of Mt Lamington and the evacuation of the villages, and consequent cessation of production.

[435] By 1954 when attempts to organize systematic production were again resumed the market price had dropped to 5/6 d. per pound; the planter proposed to issue daily chits for latex bought and to pay cash at the end of every week. He offered the villagers, and the Administration agreed to, a price of a shilling per pound dry rubber content for all grades of rubber accepted. A system was organised whereby he provided for the transportation of latex by road from collecting points.[2] He arranged for the tapping of alternate 'sections' every 4 to 5 weeks; the time interval was dependant upon the density of the latex offered. Kongohambo was the collecting point for one 'section' consisting of stands between Kendata and Binduta; Koropata was the collecting point for another section. Only 70 villages were still supplying latex, mainly because of the accessibility. A report on native agriculture in January 1956 noted that villagers had sold 3,600 lb. (dry weight) of rubber for £180 in the previous 6 months. This was produced from only 10 stands 'near Awala' and it was felt that other existing stands would probably not be brought into production until roads were improved. By July 1958 the number of stands had not increased but 6,000 lb. (dry weight) of rubber was produced and sold for £300 in 5 months.

[435] In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

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1 The report seems inaccurate where it says that the fall in price led the lessee to terminate production. In fact production continued.

2 Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

replacement of his vehicle being necessary but uneconomic. By 1958 independent production from his own plantation was increasing and, despite periodic renewal of enthusiasm for rubber,[1] the number of village tapping stands had dwindled,[2] due partly, in the planter's view, to the movement of increasing numbers of able men from their villages to take paid employment. Already, in 1955, it had been noted that in the areas near Awala and Sangara there was a serious shortage of manpower for work in the villages due to the absence of men employed as wage-earners.

In 1958 the people still interested in tapping adopted the planter's plan that, instead of selling latex at 1 shilling per pound dry weight of rubber as before, they should coagulate their latex themselves and carry it to the factory for sale at 6 pence per pound of coagulum. However if members of a distant village had a lot of coagulum for sale, they might still ask the planter to send a vehicle to collect it without charge.

Bi-annual 'reports on native agriculture' put production from village stands for the year ending 30 June 1959 at 7,000 lb. (dry weight) and the price at 1 shilling per pound. In November of the same year it was estimated that rubber was produced from about 50 acres of village stands. By December another 2,750 lb. had been produced and the European planter suggested that declining production was due to the attraction of labour to the new Sangara European plantations and to heavy demands on villagers' time made by Administration departments and the mission. Coffee and cocoa planting was said to be increasing at the expense of interest in tapping rubber. In the first 6 months of 1960, however, 4,700 lb. (dry weight) was produced; by mid-1964 interest had increased further[3] and coagulum with an estimated dry rubber content of 1,500 lb. per year was being produced. In 1962 the price offered by the planter for coagulum had fallen from 6 pence to 5½ pence per pound.

It is not clear whether the individuals who offered themselves as tappers after 1946 had been conceded this or any other right by the rest of the villagers. Responsibility for distributing

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[1] In the first 6 months of 1955 production from 7 plots of rubber 'in the Sasembata area' rose by 60 per cent to 8,000 lb. dry weight (DS-29-853).

[2] The planter puts the number of villages involved at this time at about 30. The number participating at present is still about the same.

[3] Interest was aroused by the Ombisusu rubber project at this time (see p.102).

249 the money from latex sales fell this time to the tappers. Either because tappers, village officials and 'owners' had not reached agreement on a method of sharing the money or because they expected that any distribution needed to be supervised as before, tappers from some villages asked the planter to advise them on the distribution of the income. On one occasion many villagers retained their income pending the planter's return after an absence of 18 months (during which time the rate of latex-buying fell to a very low level). The cases where arbitration was sought often involved £20 or £30 and sometimes £80; in most cases an agreement was reached to share the proceeds equally between the tapper and the owners, who in turn took equal shares. One sanction confronting a number of tappers who were reluctant to divide the money was the prospect that the latex they produced would not be bought if they failed to co-operate.

[625] When the new village of Sivepe was established after the eruption the Village Constable who had worked on rubber estates at Sogeri in the Central District before the war organized the resumption of work on the Pusahambo stand and taught some of the younger men the rudiments of tapping. A roster system which is still in operation was introduced at about that time. Except for residents not descended from the original planters and of 2 former residents of Binduta, who continue to share the income from the Korinasusu stand with Binduta tappers,[1] each villager in Sivepe with any knowledge of tapping is given exclusive rights to the produce from the Pusahambo stand for 1 or 2 months.

No one has power to direct the long-term operation of the scheme and there are no formal arrangements governing the exact period for which each man may tap the trees or determining the sequence of tappers more than 2 or 3 months ahead. Periodic discussion seems to ensure that each tapper has satisfactory access to the trees.

The present system is not conducive to the adoption of measures for field maintenance of the rubber stand or for the preservation of tapping panels. Each man works to produce as much as possible in a short time. After that he has no further interest in the stand for perhaps 18 months when he resumes tapping. Accordingly nobody is inclined to accept responsibility for the maintenance of the stand.

Few tappers work systematically; many trees on the periphery of the stand are bypassed for long periods while those towards the

[1] Like many other stands in the subdistrict Korinasusu has not been tapped regularly in recent years. The planter finds that production from stands still being tapped reaches the peak about the time annual council taxes are due.

249 centre may be overtapped. No attempt is made to extend the area under rubber or to replace existing trees. Self-sown seedlings are allowed to struggle under heavy shading of parent trees and surrounding bush. Crowding leads to an accumulation of trash which presents a disease hazard.

A meeting of the local council recently adopted the proposal of a European planter that he should supply labour to clean the village rubber stands in the area in return for the scrap rubber collected in the process but the villages concerned refused to assent to the agreement.

In order to produce the coagulum the Sivepe tappers pour latex into hollowed-out sections of logs on the site of the stand and leave it to undergo natural coagulation but some other villages coagulate latex in the buckets they had received from the European planter. The blocks obtained in this way are washed in the river before being sold at the factory 3 miles away. Villagers claimed that coagulum produced from the Pusahambo stand in approximately 12 months before our survey was sold for £35, an average of £5.16.8 for each of the 6 tappers.[1] This figure was checked against records of receipts issued and indicates a yearly yield from the 2.4 acre stand at Pusahambo of 320-40 lb. per acre, despite the age of the stand and condition of the tapping panels.[2]

[435] 433

This compares with the Territory average of 400 lb. per acre which is the same as the estimated yield for the village rubber when the trees were worked for the first time and the tapping standard was good. Neighbouring European planters achieve yields of up to 800 lb. per acre with similar clonal lines and expect 2,000 lb. per acre from newly-introduced high-yielding trees. The first yields from a nearby Orokaiva smallholder's scheme in 1964 indicated a maximum yield of 500 lb. per acre with the old clonal lines.

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1 In 1964 Department of Agriculture staff reported that 1 month's tapping by a villager selling coagulum to the European might return £2 or £3, and that the tappers thought this amount too small.

2 An officer of the Department of Agriculture who inspected the area in 1962 suggested that most of the trees being tapped were self-sown.

433 The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital. However, it is evident that they have assessed the prospects of coffee, cocoa and rubber in turn and are inclined to believe that, of the 3, rubber is the crop most likely to produce worthwhile rewards for any labour they may devote to cash crops. [249] The first individual plantings of rubber at Sivepe and neighbouring villages have taken place recently. In the past few years 1 householder in our sample has planted nearly 100 trees near Nahihita. He is employed as a rubber tapper on a nearby plantation. Another has 1 acre of cleared land intended for rubber.[1] The seedlings are taken from the low-yielding lines in the village stands. There is land available to give some scope to extension of the present areas under rubber which could be sold through the existing outlet.

However, these production increases will be limited by the fact that villagers have to be content with low-yielding seedlings while high-yielding lines are now being introduced on to local European plantations and the Department of Agriculture Nursery and by the knowledge that, quite apart from the variability in the returns for their present efforts to produce rubber, with coagulum they are limited to manufacturing a consistently low-priced product. They can make comparisons in discussions with local people employed on neighbouring plantations processing quality sheet rubber and in many cases they themselves have had first hand experience on rubber estates (see Table 10).

It is reported from various sources that the villagers to date have failed to find satisfaction in the organization of rubber production and in 1964 many were considering a plan to establish a rubber growers' co-operative on the lines of the Orokaiva Coffee Growers' Society, proposing to build a large factory of their own to meet the demands of the area now served by the European planter's factory.

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[1] Since our departure, this area has reverted to bush. Another area was cleared by the village for cash crops and it too was overgrown. Apart from various misunderstandings which again seem to have been the cause of abortive enterprise (E. Waddell: personal communication), this may indicate, among other things, that there is currently a strongly ambivalent attitude towards rubber production which requires resolution before a programme can be carried through.

A, [See Category 464, p. 82--Analyst]

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged [435] and sold at one of the co-operative buying agencies at Killerton, Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 (ii) Marketing. In addition to the long-distance trading of [443] subsistence produce by coastal people, the inland people are also beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

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[433] [1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company).
871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Avala, he only recently arrived in the village and exerts limited authority.[4]
[241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[594] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.1

[4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A, [See Category 871, p. 307--Analyst]

231 Most households keep a few domestic animals which may enter into the network of exchanges. Piglets and chickens are frequently given to others who then become responsible for them until maturity.

Table 4:3

231 245 Sivepa: economic trees and livestock, 1964*

Item	Average	Range
Breadfruit	26	12-42 trees
Areca	18	6-40 "
Coconut	18	6-29 "
Hauga	13	6-23 "
Pandanus	12	nil-32 "
Sago	9	6-15 "
Hingi	3	1-6 "
Mango	3	nil-4 "
Orange	1	nil-4 "
Pig	2	nil-4 animals
Dog	2	nil-4 "
Cat	1	nil-3 "
Fowl	1	nil-5 "

* Seven households.

245 (c) Cash crop gardens

249 Cash crop holdings in Sivepa have been described by Rimoldi (1966:83-93). Briefly, they comprise four individual holdings of mature coffee and a communal rubber planting of 2.4 acres, established in 1920. At the time of the survey, the rubber was being exploited by three adult members of the sample, together with some other villagers, on a rotational basis.

249 245 Since Rimoldi's survey, two unsuccessful attempts to establish individual rubber plantings have been made[1] in addition to a major attempt to establish a communal cash crop garden of 3.75 acres. This latter attempt, initiated in 1963, was finally abandoned in March 1964. It arose out of the village councillor mis-interpreting a DDA officer's description of the Yega scheme[2] at a meeting of the Higaturu Local Government Council and it proved, in terms of

[1] These were motivated by the opinion that trees in the communal planting were being permanently damaged by unskilful tapping.

[2] See Dakeyne 1966b.

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

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[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37. According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 491, pp. 34-37--Analyst]

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and [484] inadequate transport capacity; growers are periodically involved in two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of 461 few diseases or pests. In Sivepe, work groups in cash cropping are 184 no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

433 In both communities the choice appears to lie between subsistence 184 production plus peripheral commercial activities on the one hand and 166 migration out in search of full-time employment on the other. In 464 Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether given the existing technology, socio-economic matrix and level of productivity the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

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Nevertheless it is incorrect to apply Salisbury's proposition (1962:216-20), that the change from a stone to steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks, as further evidence for labour availability. Apart from the fact that the proposition itself is not based on quantitative data and must be regarded only as a hypothesis, if, for the sake of discussion, the factor of 3 be applied to time spent in clearing, fencing and construction (the main axe-using tasks) in Sivepe and Inonda, an additional 10.8 and 11.6 hours per man-week respectively would be required for the work with a stone technology. Since 10.7 hours in Sivepe and 10.0 in Inonda are already being directed to the external sector each man-week virtually all the labour time made available as a result of this technological change is in fact being utilised.

While there is no evidence from the activity patterns to suggest any seasonal conflict in the labour requirements of cash and subsistence cropping there is, nevertheless, some inconclusive data from both villages to suggest that a substantial extension of cash-producing activities would conflict with the requirements of the subsistence sector. In Sivepe the processing of coffee - the most labour intensive of all cash cropping work - and the harvesting of rubber typically occur early in the day and so before the start of the normal daily routine, suggestive of the fact that extra time is 'made' to carry out these tasks.[1] At Inonda it appears that where a household head engages in full-time employment for more than two or three weeks the family finds difficulty in maintaining its food gardens and so meeting all its obligations.

[245] [249]

Given that the development of cash cropping bears a direct relationship to activity patterns the data suggest the basic issue to be not one of absolute availability of labour but rather of the organisation of labour and time. The hypothesis is suggested that in a primarily subsistence-oriented economy, those cash-producing activities which do not demand a significantly different and longer work routine will be preferred. The basic feature of this routine is that one activity need not be pursued to the exclusion of others and each can be interrupted at will. So the Orokaiva working day (and week) encompasses a wide range of tasks, each pursued for only a relatively short period of time. As with the Aitutaki villagers of the Cook Islands, 'commercialization has led to few appreciable innovations in the cropping system, land tenure, technology or labour' (Johnston 1967:68).

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The present relative adjustment of cash to subsistence cropping may only be a temporary feature of the village economy and the fact

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[1] However, a higher yield of latex is also obtained by tapping early in the day.

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Plate 13. Pulping coffee in the creek at Sivepe.

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Plate 14. Collecting latex in the communal rubber plantation at Sivepe. Most of the mature trees are badly scarred by incorrect tapping.

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621 614] Ombi and Tara contain two clans, Mumu and Kusi. The Mumu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Mumu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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1 On the Ombi-Tara environment see Appendix B.[B]

2 On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 49ff.--Analyst]

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on
[654] loan from the Department of Agriculture. The baling press was provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

245 Individual planting of cocoa was tried next, with twenty-one people planting between 20 and 1,300 trees each. The average [435] plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 An Ombi man named Charles was instrumental in persuading the 464 people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility 245 of establishing a tenure conversion scheme at Ombi-Tara. He planted 249 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 Conversion at Ombi-Tara began with a visit by a resourceful 249 Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of the administrators, officials, missionaries and other members of
654 the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It was decided that 800 acres of the total area claimed by the two
[311] clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kusi clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kusi land, reportedly because of a shortage of Mumu land. The Kusi clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

249 Planting continued steadily till by 1 November 1965 over 13,000 seedlings had been planted. Thirty-two people had planted 300 or more seedlings and five had planted more than 600. A further 19,000 two and three months old seedlings were in the rubber nursery on 20 January 1966.

657 423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

●[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

1 See p. 6. A
A [See Category 241--Analyst]

Appendix C

Factors associated with high cash cropping activity

121 Although this study is mainly concerned with land tenure conversion, information was also collected on factors associated with high cash cropping activity which may be of interest when compared with related findings published in earlier New Guinea Research Bulletins.

249 472 Blockholders resident at Ombi-Tara had planted an average of 348 high-yielding rubber seedlings by 1 November 1965. The nine men who had planted more than the average were compared with the remainder of the Ombi-Tara population to determine whether they differed significantly in education, non-traditional experience, age, clan, religion, number of children, sources of income, responsible positions held in the village, languages spoken, cash crops planted before conversion and attitudes as revealed in answers to the questionnaire. In most of these characteristics there was a striking similarity between the nine men and the total population. However, several differences did emerge.

While there was almost no difference between the average number of years spent in paid employment by the sample and total populations, there was a significant difference related to responsibility, skills and locality of employment. The nine above average planters included six of the eight Ombi-Tara men who had been to Port Moresby and two of the three who had been to Rabaul. Jobs held in these towns tended to be of a more skilled and responsible nature than those held by other villagers. In Port Moresby two men were employed as policemen for nine and two years, one worked for two years first as a plumber's assistant and then as a labourer, and the other three each worked for twelve months as a workshop assistant (and later as a survey assistant in Popondetta for four months), an office boy, and a labourer respectively. The two men who went to Rabaul worked as painters with an oil company for eighteen months. The man who spent nine years in Port Moresby as a policeman was also employed as a domestic servant at Kokoda for twelve months, the only Ombi-Tara man to have a job of this nature.

One of the nine men is Charles[1] and another is the clan leader of the Mumu clan. A third is the joint custodian with Charles of

[1] See p.11.A

A [See Category 464--Analyst]

249 472 the Ombi-Tara village savings account, and a fourth is a man who was frequently mentioned as having had rights to very large areas of land before conversion and who appears to hold a position of high status at Ombi.

The nine men had planted more cash crops before conversion on the average than the other Ombi-Tara blockholders. They had planted an average of 321 cocoa trees (compared with an average of 108 trees for the other Ombi-Tara blockholders) and 126 coffee trees (as compared with 83). The nine men included three of the four men who had planted their own bush rubber seedlings before conversion was introduced.

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepa there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepa family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepa	Inonda
Coconut	Sago
Breadfruit (oga and sumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepa, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack
276 of betelnuts is felt very strongly, as the Inonda people are as
438 A fond of chewing it as other Orokaiva. Hence, it is usually obtained

[See Cat. 116, p. 213--Analyst]

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers
in his population sample of 50, who together earned $70 in one year.
[433] When I began my field work, the tapping had ceased as the factory
[434] was no longer buying indigenously grown rubber, but a rubber
cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepa. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepa and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established,
four and one-half acres in size, on which theoretically seven
men were to establish rubber stands. The Malayan trees were
planted here, as well as self-sown trees from the other plots
which were dug up and replanted. These plantings occurred shortly
after Rimoldi left. If the new cooperative venture succeeds, it
is likely that the new plot--most of which still remains unplanted--
will be exploited, but people were clearly waiting to see whether
sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the
setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepa, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepa, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from
five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
$50 and $100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepa coffee
was collected and promptly paid for in Garoubi village, about 15
minutes' walk from Sivepa. I did not take another coffee census

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepa has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
● 249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

based, is alien and seems dubious to Orokaiva. The Europeans claim that a plant needs to be looked after even if it contains no spirit; to the Orokaiva this appears absurd.

Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

For the rest, the skills acquired by Orokaiva over the last 15 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepa can be read and understood with the help of at least a junior member of the family; and can be replied to. While I could see no evidence that people have acquired mathematical knowledge of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number" for a variety of quantitative concepts, including price. Finally, one must regard as an aspect of acculturation, the introduction of many

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

Chapter 3

The village economy

This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

(a) The subsistence sector

(i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

556 An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting some of the needs of those without yams. In such a case there is no limit to the individual level of production although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(1) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

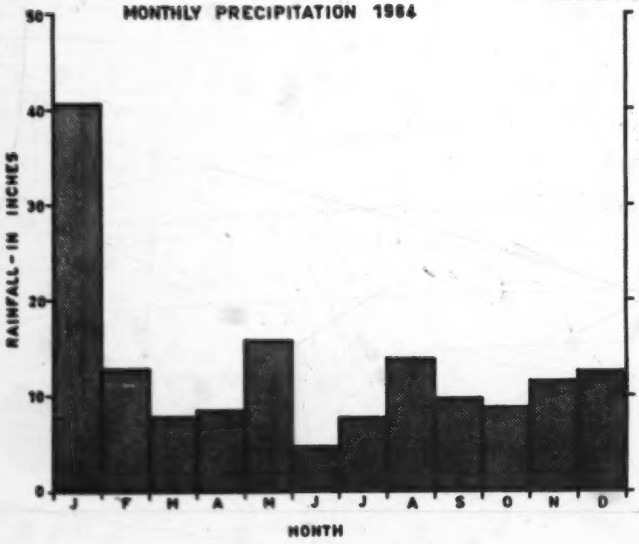
The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

AWALA
MONTHLY PRECIPITATION 1964

FIGURE 6:4 132



much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower. 512 433

In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground). 241 [22] [25]

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ina, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut [231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of [881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a fact dictated largely by the density of occupation where intensive [224] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance [512] and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig high on the slopes of Mt Lamington but this has ceased now they [130] 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs enter gardens whereupon they are usually hunted out and killed, [411] either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 322 dry weather.

252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 3. Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.

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Plate 4. Sivepe - women are responsible for keeping the central area free from weeds and refuse, as part of 'Council work'.

252 [461] gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 [262] (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 512 [432] (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20.4

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A. [See Category 435, p.20--Analyst]

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about [342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built; the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431 A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

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Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

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[433]

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

[824]

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

[133]

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During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 151]

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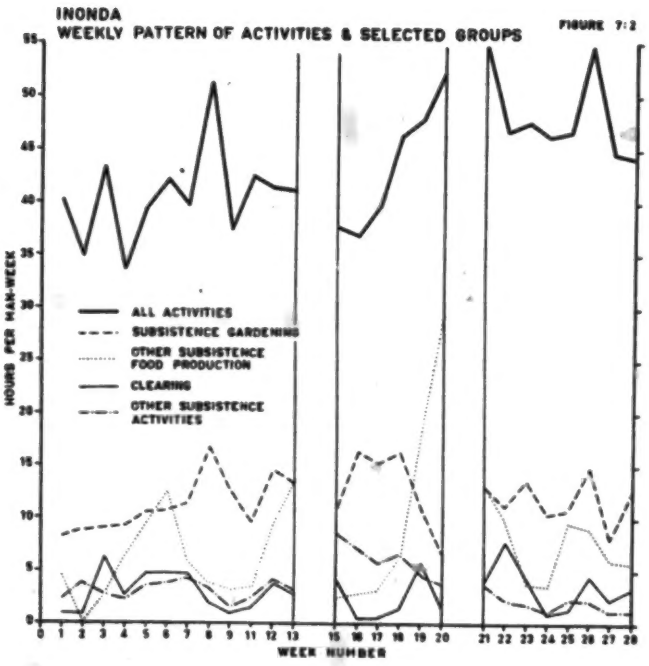

towards the end of this season. Due to the intensive demands on labour for sago-making, men often spend all the daylight hours on this task, so that the average working day is longer than at other times, reaching 7.5 hours. The time spent on sago is at the expense of not only leisure but also of clearing, subsistence gardening, other subsistence activities and involvement with external agencies (particularly council work). Although sago-making is normally restricted to the dry season, in 1964 one household had to resort to sago near the end of the wet season, because the people concerned had spent several months late in 1963 at Saiho hospital and, on returning to Inonda, had no time to clear sufficient gardens to provide food throughout the wet season.

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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morning or, less frequently, a whole afternoon is devoted to a particular task of cultivation, whether planting, maintaining, harvesting or processing and the mean duration of each of these activities is longer than for subsistence garden tasks.

As described,[1] the longest working sessions are spent on sago-making: 68 per cent of these sessions last between 5 and 11 hours. Thus, when a sago-palm is being harvested, men have little time for other tasks. Paid work also tends to preclude other activities by occupying the bulk of the daylight hours and the same is largely true of the fulfilment of most social obligations. Although many social occasions, particularly feasts and parties, take place during or continue into the night, the daylight hours beforehand are usually taken up with preparations, including the construction of shelters and the harvesting of food. Hunting and fishing both occupy on average more than four hours at a time. Fishing usually takes place in daylight hours, whereas people hunt mostly at dawn or dusk[2] and hunting does not therefore prevent the performance of daytime activities.

Most of the activities shown in Table 7:11 have a mean mid-point falling between about 11 a.m. and 2 p.m. Activities occurring early in the morning are church services, 'mission' work, visits to the aid post (personal sickness) and visits to Popondetta market.

The journey to work

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Table 7:12 shows the proportion of total time spent on different classes of activity in travelling: part A shows the details for people while resident on the old village site and part B for the new site. Owing to the method of coding for computation, it was not possible to make allowance for the performance of several tasks at one site; where, for instance, a woman visited a garden and spent some time in clearing, some in weeding and some in harvesting and also visited another site on her way home, each period was recorded separately, thus exaggerating total travel time. An attempt was made to reduce the exaggeration by recording separately the occurrence of such duplicated times and these have been subtracted from the total, but not from the grouped activities. Most of these duplications were in clearing and gardening activities. Applying therefore an arbitrary proportion of 70 per cent of the

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1 See p.133.

2 This bi-modal distribution for hunting invalidates the mean mid-point of 1331 (1.31 p.m.) hours shown in Table 7:11. To some extent the same is true of cooking, since most cooking is in early morning for breakfast and in late afternoon for dinner.

[252]

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Fig. 7. The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. [461]

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e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly

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[P10-A]

372 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the [824] house). The floor is of split lengths of limbom palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing [824] any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. [417] The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling.

252 Cooking is usually done in front of the house
354 or, in wet weather, underneath it. Some houses have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on
352 three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf.
353 There is often a light blanket or two, baskets and bags hang from the ceiling and in every
415 house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

[P.10-B]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

[P.12-A]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional. Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

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OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

435 245 At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) No copra [258] [249] was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. After the war the Akute'undi, as landowners, claimed 245 425 the trees as their own on the ground that the community project had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the right of the Akute'undi to the exclusive use of the coconuts as [578] all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

245 258 249 Enquiries in fifteen other Orokaiva areas where coconuts were planted under the regulations show that most were never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 average f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952. 241 [731]

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account. [578] [258]

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the 654 245 245 578 [654]

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage. [425]

Community rice and cocoa projects

797 In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally 474 linked to the mission.(1) The main activity of the co-operatives [241] was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred [258] to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

621 In most instances the village worked as the unit of [243] production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

461 In general Monday and Tuesday of each week were set 794 aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, 797 magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed 461 out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

Appendix F

The Orokaiva villager's experience of cash cropping

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generation, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

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OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

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OJ23 Orokaiva OJ23
Mountain Orokaiva

and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

In addition to father, mother and twins, the myth contains a fifth character, the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

If female nature, in its pure state, is found in the taro garden and male nature, in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

The analysis of this myth has enabled us to understand more precisely the sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'. The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

Gifts of taro may mediate either the establishment or perpetuation of a social relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by every Sivepe household every day. In the twenty-eight days for which I took

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[726] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
[628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed
[728] clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived
361 in permanent security." "Hiving off" occurred sometimes
241 as the result of a "quarrel and the fear of retaliatory magic,"
[518] but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
931 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[199] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

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S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

197 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of produc-
511 tion.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *sacharum edule*. 262

5: Schwimmer - E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

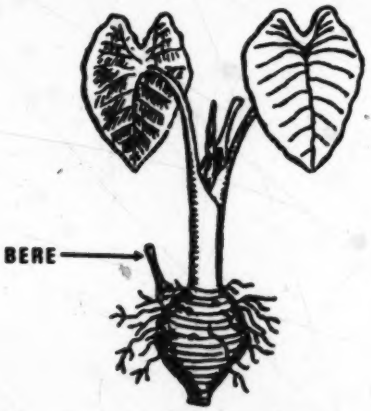


Fig. 7. *Colocasia esculenta* (taro).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 she takes them home. The brother is clearly identified with taro growing in the
773 field.)
244 7. The story tells in more detail than is relevant here how the sister learned
539 what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers. [262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were [775] discussing the jungle. It was above all a place where the ghosts (*sovai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sovai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[775] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as [784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

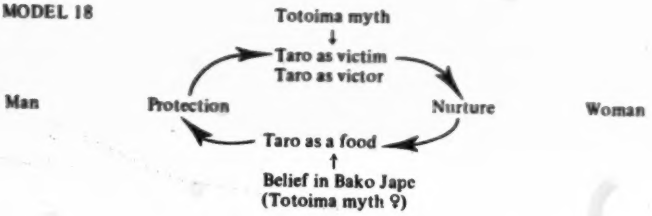
This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5) but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 hunting territories and the like. Thus the Orokaiva regard themselves as stronger
262 than Managalase (certainly they are more numerous as their fertile land can
827 support a far denser population), which served to show the superiority of taro
[721] over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked
824 taro domestically but man, in providing the raw feasting taro, employs taro as a
773 symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

4. *A Survey of Taro Gifts*

824 One special interest that taro gifts hold for the field anthropologist is their great
431 frequency which opens the possibility of statistical analysis of a fairly large
125 number of gifts of a fairly homogeneous kind. Twenty-two households were
128 visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 825 571 to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] 431 [437] While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give away *all* the meat of a pig one has killed. There is a strong, empirically [262] demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which [778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 262 224 431 773 These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 825 Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 partners, while objects of mediation are not imaginary and magical, but have a real
772 existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the
[252] squeezed flesh produces coconut cream in which taro and delicacies such as river
[262] crabs may be cooked. Young coconuts are cut open at the top and used for a
[272] refreshing drink. Coconut is reserved for two kinds of everyday food gift:
[431] cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other
[262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary
[764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it
[146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut
[231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on
[235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance
778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in
[302] the sense that the fluid would drive away dangerous spirits (1930: 175). With
[789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of
[881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these
[761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help
[764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

(b) Climate

According to Köppen's climatic classification (Köppen and Geiger 1930) the whole area falls within the Af category (humid tropical lowland), the uniformly high temperatures and rainfall providing a long growing season calculated by the CSIRO to be effectively twelve months in 9 years out of 10.

Two seasons, commonly referred to as 'wet' and 'dry', are definable in terms of wind direction, rainfall and humidity and are clearly recognised by the Orokaiva. The 'wet' season, from December to March, is characterised by north-easterly or north-westerly winds, high temperatures and humidities and late afternoon thunderstorms, while the 'dry' season, from May to October, experiences north-easterly winds, lower temperatures (particularly at night),[1] less cloud cover and more irregular rainfall, both in frequency and intensity.

The mean annual rainfall almost everywhere exceeds 100 inches, increasing inland to 157.6 inches at Awala on the lower slopes of Mt Lamington. The wettest and driest months are December and July respectively, the precipitation ratio between the two being in the range of 5:1 or 5:2. The rainfall pattern is not strongly seasonal by Papua-New Guinea standards and the element of seasonality decreases from the coast inland, from a coefficient of seasonal variation of 0.34 at Buna to 0.27 at Awala. Further, the deviations from the mean reveal that there is only a moderate variability of rainfall; nevertheless it (as revealed in Table 1:1) has considerable bearing on the rhythm of agricultural activities and economic life in general. While the pattern of food production clearly varies with the two dominant seasons,[2] the time-consuming tasks of clearing bush and establishing new gardens show no definite pattern other than a close association with the occurrence of dry periods. Thus the availability of labour and its application demand some flexibility to accord with the vagaries of weather.

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[1] Mean maximum temperatures over the year are in the range of 83° to 88°F., relative humidity at 9 a.m. is 80 per cent falling to 72 per cent at 3 p.m., and mean minimum temperatures are from 65° to 70°F. These figures are derived from observations made at Sivepe on the lower slopes of Mt Lamington. Temperatures can be assumed to be 5°F. higher at the coast and the diurnal range slightly less.

[2] Distinguished by the Orokaiva as garepa - the wet season - when the staple taro (Colocasia) is in production, and huvira - the dry season - when the people must resort to sago, breadfruit and less favoured foods.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils [476] and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly [417] in the early stages, but less frequently as they approach maturity. In the less densely [136] settled areas where wild pigs are common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden-task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A. [See Category 102, p. 38--Analyst]

pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the domestic pig, and birds and small marsupials which are hunted. In Inonda and other areas more low-lying than Sivepe, rivers are larger and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that yams and sago also are very recent introductions into their area. The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sera',[3] as distinct from the ordinary taro gardens, called 'pure'. The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

(ii) Exchange. The most common transactions are the daily exchanges of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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[1] Breadfruit is common only in the inland areas.

[2] Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

[3] Such gardens are often only roughly cleared and not weeded, thus reducing labour.

431 Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals
437 killed during a hunting expedition and more or less casual transactions with non-residents.

574 Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the
[178] lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not
[439] concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods
[262] are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the
[535] location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening
[533] and non-traditional dancing to guitar accompaniment may continue
[534] throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food
[177] or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

438 In addition to these exchanges with kinsmen, co-residents and
[437] neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[461] [262] [251]

New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

[221]

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive utilisation of the forest has greatly reduced its plant and animal [512] resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

222 Sago-making is a highly seasonal activity. In Sivepe, production 252 is confined primarily to the dry season when 1.5 hours per man-week [22] were spent on it, rising to 6.4 hours in week 16 when only taro [512] gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

252 [461] gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 ●[262] (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 512 [432] (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20. [462]

[2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A. [See Category 435, p.20--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

time. In effect Gorukari is concerned essentially with producing and preparing for consumption the staple food, taro.

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[262]

The figure of 48.0 hours per week is somewhat misleading in the case of such a woman where so much time is taken up with care of children and minor household tasks which do not lend themselves to quantitative analysis. In following her movements through a single day it was found that, between rising at 0610 and finishing the evening meal at 1845, Gorukari spent only 1 hour 50 min. actually resting or eating. She was therefore active for a total of 10.8 hours compared with an 'activity' figure of 8.1 hours. From 1845 until 2220, when she retired, she sat and talked with her husband. Assuming this to have been a typical day, a woman such as Gorukari has an activity week of about 75 hours.

Social obligations account for 3.1 hours per week, 55 per cent spent in visiting. Not only is this substantially less than the figures for Linton and Palminus but it reflects a somewhat different emphasis. While the role of women in ceremonial life is subsidiary to that of the men, they are often responsible for the more informal exchanges which are a characteristic feature of Orokaiva life and, since the society is typically a patrivirilocal one, it is to be expected that the women spend a significant amount of time visiting their kin.

[562]
[591]

Gorukari's primary concern with food gardening and household tasks is expressed in the general distribution of her time. In particular she is more concerned with subsistence activities than the sample in general, these accounting for 79 per cent of her total activity time, while she also places greater stress on productive tasks. These facts are manifested in both the infrequency and short duration of her absences from the village which amount to only 1.1 per cent of potential survey days.

Olga. Olga is aged about 48 years and the wife of the most progressive of the older generation - a man with extensive non-traditional experience. They have eight children, the eldest of whom resides, with his family, next door. The two youngest, girls aged 10 and 14 years, attend Sasembata school and still live at home. All but one of the other children are married and normally reside elsewhere.

Subsistence gardening and household tasks dominate Olga's activities to an even greater extent than they do Gorukari's, accounting for 89 per cent of total time in an activity

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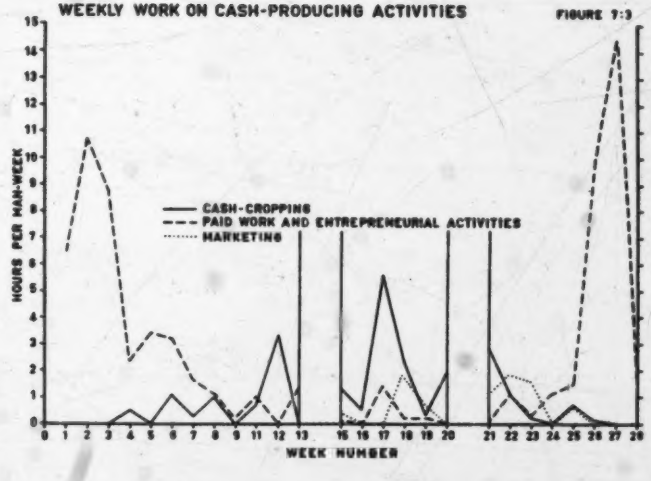
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
224 leaves beside paths while walking to or from other activities and
221 such gathering may not be recorded. In addition, a considerable
[411] amount is gathered by children. Hunting also increases during the
dry season, with the increased number of wild pigs. However, a
significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

437 431 of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

[241] [262] Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

431 23 224 [262] [574] Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

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[128] [1] This figure was determined by using yield data gathered in Sivepe during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

434 Excluding the researchers' contribution to total income only 39 per cent is derived from the sale of cash crops and subsistence [43] produce, the bulk entering instead through the gift exchange system, largely in the form of remittances. By contrast, excluding bank deposits, 63 per cent of disposals takes place in the monetary system, principally as purchases of storebought goods, only a minority being distributed as gifts. In effect, therefore, the gift exchange system serves as the principal mechanism for the acquisition of cash, but only a minor part entering in this way is so distributed, income being used rather to purchase goods unavailable in the subsistence sector of the economy.

Seasonal variations in exchange patterns

438 (i) Subsistence produce (see Table 10:4 and Fig.10:2). Although no net movements of subsistence produce in or out of the sample are identifiable, other than those directed to the researchers, transactions do reflect the temporal pattern of availability of particular goods. Three broad categories are identifiable - continuous, seasonal and periodic. Of the main cultivated plants only the circulation of sweet potato is maintained at a constant level throughout the year, as it is more tolerant of dry conditions than the staple, taro. However, in terms of diet, its role is not important and in only two weeks did it constitute the major item of exchange.

During periods I and III taro predominates in transactions comprising 37 per cent and 32 per cent respectively of the total volume, but with the annual fall in production in the dry season it declines to 11 per cent, and breadfruit and sago replace it as the main exchange items with 35 per cent and 17 per cent respectively. [262] The production and distribution of these latter crops is almost entirely restricted to the dry season when they constitute the major part of the diet. The peak in breadfruit exchanges precedes that of sago, this being a reflection of both food preference and labour productivity. Only after the supply of the former has been largely exhausted is the labour intensive work of sago extraction resorted to.

Among the Orokaiva, as elsewhere in New Guinea, meat, in particular pig, provides the classic example of goods only periodically available. Although most pigs are exchanged ritually prior to consumption, the fact that a specific quantity of meat may change hands several times, commonly by a process of subdivision and partial redistribution, precludes any meaningful estimation of the level of consumption. It is nevertheless worth noting that on twelve weeks no transactions were effected and on only six did the total volume exceed 100 lbs. On two of the latter six weeks pig was the major exchange item, on a third the volume was only marginally exceeded by that of taro, while on all three weeks it accounted for more than one-third of all transactions.

derived from the data is in part misleading since sales of coffee were made periodically from June through to September while rubber can be, and is, sold at any time of the year. A feature of both crops is, however, that substantial quantities are harvested, processed and stored prior to entry into the exchange system. Unlike most subsistence crops both are capable of storage while, in the case of coffee, the infrequent opportunities for sale make this a necessity. Over the survey three sales of rubber and five of coffee were recorded.

(iv) Storebought goods (Table 10:7 and Fig.10:3). The distinct periodicity apparent in the movement of the major storebought goods is connected with both seasonal factors and the receipt of parcels from kinsmen in wage employment. The consumption of these goods can be variously judged, according to the time of year, as supplementing the subsistence diet or as being surplus to requirements. During period I, with little feasting and an abundance of garden produce (plus a shortage of available cash), only a small quantity of food is purchased and none circulated. The acquisition of rice is at a peak during period II to compensate for the shortage of starches in the subsistence sector; yet even at this time consumption amounts to only about 1 lb of white rice per adult per week. Most is purchased in 1 lb or 2 lb lots from local trade stores, although on one occasion (in week 16) a 56 lb bag was purchased. Most conspicuous consumption and exchange takes place during period III: tinned meat and fish which are frequently consumed with the staple foods exceed rice in the value of exchanges, but acquisitions of them only amount to about 0.5 lb per adult per week.

The climax in the circulation of tobacco and clothing during period II reflects the receipt of two gift parcels by sample members, with goods to an estimated value of $65. In the case of cartridges the increased circulation during the dry season was associated with improved hunting opportunities and, in connection with them, the quasi-entrepreneurial activities of one sample member.[1]

The manner in which storebought goods are circulated is similar to that of subsistence produce in that there is little storage or stock held. Because the utilisation of these goods is related primarily to specific circumstances, such as the availability of cash, receipt of gift parcels and feast requirements, the pattern of exchange over time assumes a highly irregular form which, to a considerable extent, obscures seasonal variations. It should be noted, however, that this form closely parallels that of the circulation of subsistence produce (see Fig.10:2).

A,[See Category 438, p. 193--Analyst]

[1] See p.119.

437 Table 10:16 outlines the geographical pattern of transactions of
438 subsistence produce and labour services. In so far as produce is concerned, 96 per cent of all acquisitions and 89 per cent of disposals[1] are restricted to subsistence villages. Furthermore, almost all of these exchanges are effected within a radius of two miles of Sivepe, with the majority operating within the village itself. The small net outflow of produce away from the villages (of sales and gifts to relatives in paid employment) is more than compensated for by the dominant inflow of cash and storebought goods described above. Within this broad pattern specific variations are identifiable, from produce which is exchanged almost exclusively within Sivepe to that which figures largely in links with distant villages and points outside the village network. Within the former category are prepared dishes such as 'soup', foods eaten primarily as refreshments, such as sugar-cane, and those which dominate the diet during the dry season - sago and breadfruit. The latter category comprises the ecologically based transactions of areca, lime and fish. There is only a very limited demand for all three, however, and the volume and frequency of such exchanges is of little significance within the total pattern.

Taro and pig figure largely in inter-village exchanges, their movement being explicable primarily in cultural terms. One is the main source of carbohydrates, the other of protein and both serve as essential measures of wealth in food resources, therefore dominating ceremonial exchanges. In addition, custom dictates that a person cannot kill and consume his own pig but must effect an exchange with another. Since it is unlikely that two households in the same village wish to kill pigs at the same time, the transactions are largely made between individuals in different villages.

The movements of yams and Xanthosoma are somewhat anomalous: almost all acquisitions of the former originate within Sivepe but many of the disposals are directed to other villages, while with Xanthosoma the pattern is reversed, most acquisitions coming from other villages. Neither crop is particularly abundant and the extent to which each is planted is largely a matter of individual preference, but both are favoured because of their storage qualities. Their variable movement must therefore be viewed as an expression of individual rather than broad cultural or ecological considerations.

437 Disregarding, for the moment, absences involving assistance to settlers at Sangara, the exchange of labour services is restricted, effectively, to the inter-village level and, almost entirely, to Sivepe itself. In the case of subsistence activities it is not

[1] If transactions with researchers are disregarded this figure becomes 86 per cent.

[TEXT CONTINUED ON PAGE 219]

Chapter 11

Exchange patterns: Inonda

The nature and volume of transactions

The Inonda people carry out exchanges of subsistence produce, labour services and items derived from trade stores not only with each other but also with people from other villages, with settlers and with kinsmen or friends who are wage earners. Reciprocation for a gift is not necessarily on the same occasion, or in the same quantity or of the same item. The exchanges effected by the 21 adult members of the village were recorded simultaneously with the data on activity patterns, a total of 2,782 man-days being covered.

(a) Non-monetary sector

(i) Subsistence produce. Table 11:1 shows the total amounts of each item given and received by the villagers in all non-monetary transactions. The dominant position of taro in the horticultural system and the diet is emphasised by its role in exchanges. The economic importance of the sparsely-populated grasslands and hill areas is also clear from the fact that wild pig is the next most important item after taro; other hunted produce and fish are also significant. Some allowance should be made for the fact that pig carcasses, weighing up to 200 lbs are often given whole rather than after the removal of the gut and bones.[1] In addition, portions of meat frequently pass through a 'chain' of exchanges and are thus counted several times. This process occurs more rarely for vegetable produce. These qualifications, however, are not sufficient to diminish the significance of pigmeat in the exchange pattern. Sweet potato is the second most important crop (see Table 4:9) and the third most important item in subsistence transactions. Banana, sugar-cane, yam and pumpkin are the main subsidiary crops and are also significant in the exchange pattern. The comparatively small

[1] This practice is determined partly by the belief that in certain circumstances, such as when using a new gun, spear or new hunting dog, a hunter should not keep the prey to himself.

TEXT CONTINUED ON PAGE 230

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income received would have been negligible. In 1951 the crop was attacked
[242] by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[657] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

241 The supplementary food plants provide both variety in the diet and some insurance against failure of either of the two main crops. Corn matures within two or three months and can be planted amongst the taro if a food shortage appears to be im-
[242] minent. Both wild and cultivated sago is used as an emergency food. There is usually a shortage of garden crops at the end of the dry season, and this is overcome by making sago. Sago is only eaten at other times when large quantities of food are needed for feasts.

The boundary of a food garden remains recognizable for about three years from the time of clearing. By then the garden is covered with either regrowth or kunai and is no longer
126 producing food. All food gardens with recognizable boundaries were surveyed by chain and compass and the area of each garden calculated.(1) The date on which the vegetation had been cleared for the preparation of each garden was determined as nearly
241 as possible. The average area of land required for food gardens for the village as a whole was found to be 12.76 acres or 0.27 acres per head of population per year.(2) Areas of subsistence gardens at present being cultivated or from which food is currently being harvested are summarized in Table 2.

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(1) Maps on a scale of one inch to one hundred feet were drawn. These have been reduced photographically and are reproduced on pages 106-108A

[128] (2) This figure was calculated by the following method. For each household, areas of all gardens with recognizable boundaries were determined and totalled. The date at which the oldest of these gardens was established was determined for each household. From this information the area of garden land required per month was established for each household. (For example if the total area of gardens made by a household over 27 months is 5.4 acres, then that household makes new gardens at the rate of 0.20 acres per month or 2.40 acres per year.) The area of new garden land brought under cultivation each month by the village as a whole was then calculated by totalling the area required per month by each household, and multiplied by 12 to give the area required per year. This figure divided by the population of the village, gave the area of land required for gardening per head of population per year. The area of 0.27 acres of garden land per head of population per year should not be confused with the area of land which people were cultivating at the time of the survey. This latter area (0.31 acres) includes land cleared but not planted, land planted with gardens not in production and land from which garden produce was being harvested at the time the survey was made. It does not relate to any period of time, but gives an indication of the area of land which the households were actually tending at that particular time.

A [See Category 102, pp. 106-108--Analyst]

423 241 245 miles away and another to collect betel nut about fifteen miles away.(1)

The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

222 Unlike in other parts of the Orokaiva country sago does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights. [267] Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

423 241 245 A total of 21 sago trees was accounted for on Inonda lands, but the bulk of sago supplies is obtained from outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

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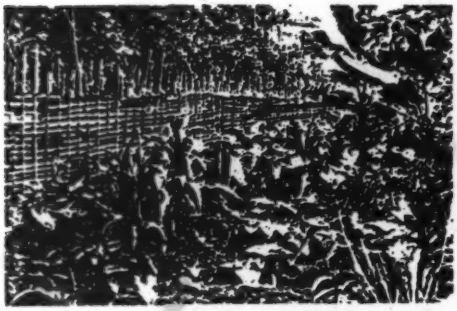


Fig. 6. ***A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high***

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

[224]
[825]

241 c) *Division of labour.* Most garden work is performed by both men and women, but cutting large trees is men's work only, and harvesting is performed by women only. Incidentally, the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

462

[482]

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

222

[P.9-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

BOTANICAL NAMES OF COMMON FOOD PLANTS

137
262

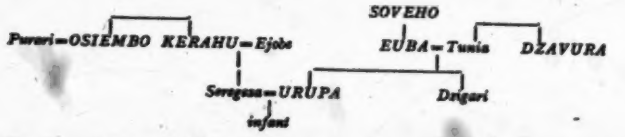
Banana — *musa* (spp.)
Cassava — *manihot* (spp.)
Coconut — *cocos nucifera*
Sago — *metroxylon sagu*
Sweet Potato — *ipomoea batatas*
Taro — *colocasia esculenta*
Taro Kong Kong — *xanthosoma* (spp.)
Yam — *dioscorea* (spp.)

[P.40-A]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau kahare tato tungenu

Ijota pouta tato tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

311 products, such as slow-growing trees, which are used for house
posts, drums, and other artifacts. A great deal of Sivepe land
423 is in young bush but this is fallowed garden land. After eight
years or so, it grows sizeable trees, and sometimes it is fallowed
for much longer. In this bush, many trees may be found that have
actually been planted by man and are owned by individuals.
Prominent among these are breadfruit, various nut trees, fruit
trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do
occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game,
but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for
the rivers which contain very little fish. I could not help
wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting
expeditions occurred only when there was a feast, and when the
offering of fresh meat to guests was especially desirable.
(Tinned meat might be cheaper than the cartridges but much less
esteemed.)

311 In this respect, the situation was very different in Inonda
where only a fraction of the land was used for gardening so that
almost all of it was hunting land. Most of this was in kunai
grass, which was very often burnt over. The effect of these burnings
was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually
became an economic resource: it was sold on the market and used
as gifts in return for feathers and other valuables. There are
more birds at Inonda than at Sivepe, more marsupials and also a
good chance of an occasional wild pig. Neither at Sivepe nor at
Inonda is there evidence today of the use of traditional hunting
techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[293] duction of guns and snorkels which greatly increased yields for
some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after
the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly
in both villages. It was impossible to know how many pigs were
owned by Sivepe people in 1966-67, because they disappeared as the
old village became deserted and were never seen at all in the new
village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepe
people alone which suggests that even in 1963, when he stayed
there, the whole village must have owned at least 60. During my
period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966.

235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters [293] were deprived of many of their choicest feathers at a time when [411] headdresses had to be refurbished for dancing or spears decorated. At a visit from Togabou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [574] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

438 There is a great shortage of both pigs and fowls for these 439 ceremonial occasions. Pigs are bought for high prices ($20 to $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

241 We may distinguish, among local plant resources which yield 311 economic products, those plants which are native to the district and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepe there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepe family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepe	Inonda
Coconut	Sago
Breadfruit (oga and eumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
● [262] of income. At Sivepe, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack of betelnuts is felt very strongly, as the Inonda people are as
276 fond of chewing it as other Orokaiva. Hence, it is usually obtained
438 A [See Cat. 116, p. 213--Analyst]

276 439 from relatives who live in the mountain districts or else obtained by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants 245 are also used as building material. As the supply of sago is very [262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[199] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small [287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

241 177 The three introduced cash crops of significance in the two villages have been rice (pre-eruption), coffee and rubber; in both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these [243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past. Taro forms the mainstay of the meal, with various vegetable relishes, 262 while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet. [263] Animal foods are eaten only on special occasions. It is the festive diet that has undergone recent changes: trade salt is almost universally [411] used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a [272] side dish, together with taro. Tea and sugar have likewise become [263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was 177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
[821] this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

[853] The health authorities had successfully campaigned against the Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to wash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

[A] [See Cat. 116, p. 219--Analyst]

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepa, some children had started going to the Jesembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

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or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [3] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

I. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

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OJ23 Orokaiva OJ23
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making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

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177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive diet that has undergone recent changes: trade salt is almost universally
[411] used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakaru sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 [778] When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 [266] The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 [614] [619] This section outlines the range of wider common territorial interests and concerted political action among traditional groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case sharply distinguished from the standard forms of hostility between tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

[266] [721]

[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepe where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepe men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepe and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepe in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated
[731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practises what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of
[582] residence. Within this area, marriages are contracted, cannibalistic
[721] raids do not occur and fights tend to involve comparatively little
[266] bloodshed. The circle of "intra-group morality" varies for every

village. Williams, in marking out his "Waseta tribe," with Waseta at the centre, excluded the Soroputa people from this "tribe" (vide Map X), but "intra-group morality" definitely prevailed between Soroputa and neighboring Sivepa. There never were cannibalistic raids between these two villages, which included each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more closely together than formerly. I obtained from a number of Sivepe men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepe I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

If "tribal" solidarity was dubious before the Ilimo camp period, (the atmosphere of an evacuation camp was certainly not a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

The government is actively attempting to create among the Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepe and Soroputa or Agenehambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [292] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] [262] [764] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] [231] [235] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 [302] [789] [881] [761] [764] Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in the sense that the fluid would drive away dangerous spirits (1930: 175). With the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

Food: The Orokaiva menu is still basically the same as in the past. Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet. Animal foods are eaten only on special occasions. It is the festive diet that has undergone recent changes: trade salt is almost universally used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a side dish, together with taro. Tea and sugar have likewise become favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

Clothing: At the time of the eruption, traditional clothing was universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

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[273]

Although without access to a shotgun, Palminus spends even more time in hunting than Linton (98 per cent of the 9.1 hours devoted to other subsistence food production). Guitar parties account for over half the time spent on social obligations and, while they normally appeal primarily to unattached youths, Palminus is attracted to them by the liquor (including beer, gin, rum and methylated spirits) often on sale.

The time spent in coffee production, 5.9 hours per week, is a particularly high figure when it is considered that this work was confined to little more than one-third of the total survey period. When, during the latter part of the dry season, Palminus had completed harvesting his own coffee he agreed to pick in the garden of a member of Soho clan. Although he did no paid work while resident in the village, over half of the 9.5 per cent of survey days on which he was absent was spent at Sangara constructing a house for a settler, with a view to receiving a cash payment for it at the end.

[562]
[177]

Gorukari. Gorukari is aged 32 years and a married woman with five children, all under the age of 12 years. The two eldest attend Sasembata school, one, a six year old, refuses to go, and the others are below school age, one being still at the breast. Although she received a few months' schooling at Sasembata, her experience of Western culture is slight and in this respect she is typical of the women. Her husband is not unlike Palminus in that he is industrious, interested in cash cropping but not a particularly influential person.

On account of the size of her family and age of her children, Gorukari has a heavy burden of basic subsistence gardening and household tasks and while her eldest daughter, aged 11 years, could be of considerable assistance, regular attendance at school prevents this. In addition, Gorukari's domestic obligations often extend to the care of her husband's father and mother plus two children who reside next door. The father is over 55 years and the mother only a little younger and both are frequently sick.[1]

With a mean activity week of 49.0 hours, 62 per cent of her time is spent on subsistence gardening and household tasks, taro gardening predominating in the former and cooking in the latter. This figure contrasts with the sample mean of 46 per cent of total

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1 He was sick, or absent through sickness, on 30 per cent of potential survey days and she on 28 per cent.

support is an essential prerequisite to land reform in a democratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

From its inception the council expressed the view that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

The Department of Agriculture thereupon took over the factory and began operations. The Orokaiva raised strong objections,(1) and a public meeting of about 1,200 people was held on 6th October 1959. Government officers are said to have informed the meeting that the factory was being run at a loss which was being borne by the government. Nevertheless, negotiations were then held with the council and it was agreed that in future the processing and marketing would be run by a committee to be known as the Higaturu Council Coffee Factory Committee which was to consist of the District Agricultural Officer, the Assistant District Officer (Local Government), a representative of the Higaturu council and a representative of the growers (who was not necessarily a member of the council). The committee held its first meeting on 25th February 1960 and met at monthly intervals thereafter. The day to day operation of the factory was controlled by the Department of Agriculture.

Early in 1962 it was decided that a new body to be known as the Orokaiva Coffee Growers Society would be set up to handle the processing and marketing of coffee. The society serves a wider area than the council and is independent of the council. It is run by a board of directors with an officer of the Department of Agriculture as adviser, and replaces the former Higaturu Council Coffee Factory Committee. The society is raising capital by selling shares at £5 each to indigenous coffee growers and by the end of 1962 it had a membership of 470 and a share capital of £2,350.(2) It is intended that the society should buy out the council's investment in the coffee factory. Six coffee buying centres have been set up by the society, and all coffee in the area (35 to 40 tons in parchment per year) is now bought through them and processed at the factory. The processed coffee is marketed in Australia through the Territory Department

(1) These were undoubtedly aggravated by a drop in overseas prices soon after the Department took over, and by the fact that the Department several times ran out of funds for buying the coffee and had to send growers home without payment.

(2) Late in 1962 a European planter applied to join the society but his application was disallowed on the ground that the legislation under which the society operates (the Native Economic Development Ordinance 1951-2) does not permit of non-indigenous participation.

of Agriculture. Those Orokaiva people with whom we have discussed the matter appear to be satisfied by the present arrangement and to appreciate the experience they are thus gaining in running a commercial enterprise.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The first plans for a feast are laid at least one year in advance, as it involves extra plantings of taro as well as economising on pigs. By the end of December, the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

The pig sacrifice at this meeting serves to remove any latent hostility between the men of the group, so that all will be united and co-operate unreservedly towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The meeting thus temporarily changes the authority structure of the village. The growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

The same principle underlies one detail of the ritual taro display to which I have not yet made reference. At the meeting 'special betelnuts' (I do not know just what medicine is used on them) are distributed by the feast-giver to be shared, after the meeting, between the men and their wives. The men are to ask their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

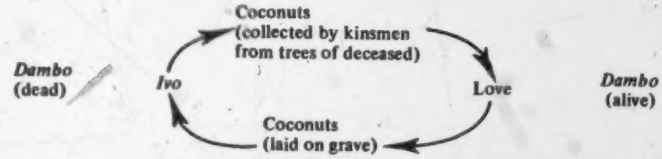
Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

142
241
412
411

Fig. 7. The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

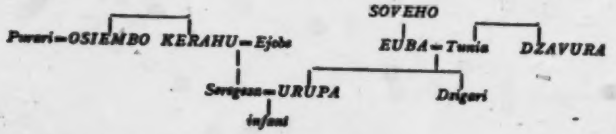
e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed. 000

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau kahare isio tungenu

Ijoio posia isio tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepe there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepe family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepe	Inonda
Coconut	Sago
Breadfruit (oga and sumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepe, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack
276 of betelnuts is felt very strongly, as the Inonda people are as
438 A fond of chewing it as other Orokaiva. Hence, it is usually obtained

[See Cat. 116, p. 213--Analyst]

276 439 from relatives who live in the mountain districts or else obtained by barter, or bought from other villages or at the Popondetta market.

245 [262] Sago is made and eaten when other crops fail, but the plants are also used as building material. As the supply of sago is very limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[199] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small [287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

241 177 The three introduced cash crops of significance in the two villages have been rice (pre-eruption), coffee and rubber; in both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these [243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
the District Inspector of Schools was a Papuan. Thus, in the Church
as well as in the Health and Education Department, Papuans were in
[895] actual administrative control over Northern District operations,
with white personnel nominally their subordinates. The term
"nominally" must be applied to the relative rank of Papuan controllers
and expatriate subordinates, because the latter are still receiving
a very much higher salary. Nonetheless, the new situation definitely
sets up a hierarchy, with Papuans at senior levels, and the village
people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan
public servants. The first was with a clerk sent out by the
Department of Lands, whose task it was to organise the establishment
of boundaries between the wards. This man was an Orokaiva, from
Jegarata, who explained the purpose of the boundaries in the Orokaiva
language, at a meeting held in Garombi and supposedly attended by
all the villages in the ward. A spirited discussion took place,
the people suggested village representatives, the clerk accepted
the representatives proposed for Sivepe and Garombi, but was non-
committal over the other two, as he saw Isoge and Binduta were
[276] insufficiently represented. He chewed betelnut with the people;
the whole procedure was matter-of-fact and businesslike, and no
covering-up was attempted for the two ill-represented villages.
[191] The absence of an interpreter, the use of Orokaiva instead of the
lingua franca (Motu), the free use of betelnut, the fact that we
all sat on mats together--all this established an easy bridge
between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here
again, the day-to-day instruction was given by two Northern District
Papuans, agricultural assistants, in a rather more junior position
to the Lands Department clerk. These two young men were definitely
supervised by an expatriate officer; they were staying in Sasembata
village for awhile and came over to Sivepe one night for a small
feast and a dance. Though they were both Aiga, they mixed easily
with their Orokaiva agemates, on a basis of equality and familiarity.
They were the guests of a third agricultural assistant, who belonged
to Sasembata village but were working for the Department at Saiho.
This young man gave me a description of the scope of agricultural
development (a rubber cooperative) proceeding in Sasembata. He had
a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have
the task of driving government personnel where they wish to go and
often travel unaccompanied by officers to collect personnel or cargo.

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jesembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

[512] [461] (ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. [462] The latter activity occupies, on average, about [286] 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More [285] than one-quarter is spent, mostly by women, collecting and weaving [824] pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. [462] House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the [342] time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating [157] this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

S: Schwimmer E-4,5 (1966-1967) 1973
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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 7. Women spend many hours making string bags.

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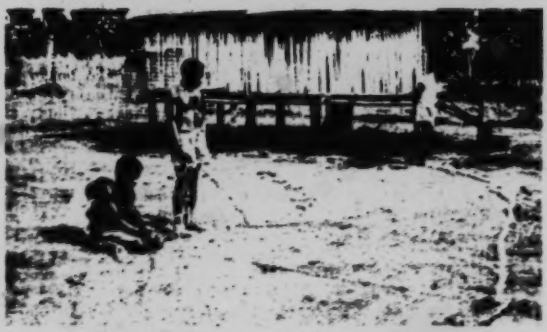

Plate 8. Men from Inonda and Moscu villages repairing a large fishing net preparatory to an all-night fishing expedition.

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Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251]

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men
[191] and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year singings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A] [TEXT CONTINUED ON PAGE 12-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Fig. 8. *Bark-cloth (tapa). Each manufacturer has her own special designs traced in red and black dyes on the white material.*

[P.11-B]

276 from relatives who live in the mountain districts or else obtained
439 by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[799] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

The three introduced cash crops of significance in the two
241 villages have been rice (pre-eruption), coffee and rubber; in
177 both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these
[243] relationships are analyzed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
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[TEXT CONTINUED ON PAGE 251

511 Only one man owns a mosquito net and there is only one transistor
[207] radio in the village. Some of the older people still wear tapa
291 cloths but new ones are seldom made now. The more common form of
178 dress is a pair of shorts, a skirt or a laplap, the skirts being
[177] mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75.
411 These are the only items in the village representing large capital
[435] outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style,
342 but all are built wholly of local materials. They contain no
178 raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 A creek running beside the village provides the water for bath-
487 ing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have
514 pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 Inonda lands run from the low plains (200 feet above sea level),
134 beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with
[311] the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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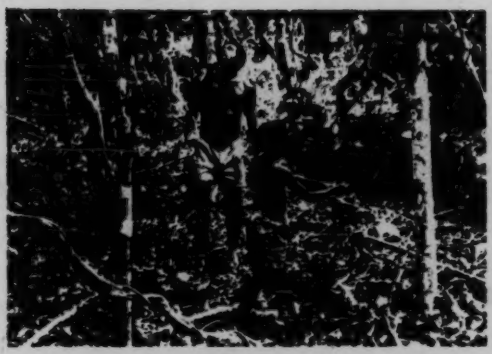

Plate 5. Men are responsible for the initial clearing of a new garden site. Boys acquire the appropriate skills by assisting their elders.

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Plate 6. Women are responsible for the final preparation of the garden site prior to planting. Here, following an initial burn, the debris is being piled around the tree stumps and larger timbers to burn them a second time.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 7. Women spend many hours making string bags.

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Plate 8. Men from Inonda and Moscu villages repairing a large fishing net preparatory to an all-night fishing expedition.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 11. Taro, pigmeat, areca, rice and tinned fish on display in Inonda prior to presentation to a Girua settler.

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Plate 12. Stalls at Popondetta market, where people from Inonda frequently sell their produce.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 13. Pulping coffee in the creek at Sivepe.

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Plate 14. Collecting latex in the communal rubber plantation at Sivepe. Most of the mature trees are badly scarred by incorrect tapping.

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Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

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Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

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Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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Gona villages co-operative store at Cape Killerton.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

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Bride and groom outside the organizer's house on the morning of the first day of the bride-wealth exchange

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Transferring the cash

[p. 80]

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[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[289] The traditional body covering for both men and women was beaten out bark-cloth of the
[171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-making. They used to trade their *tapa* for pots
439 from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P 11-A] [TEXT CONTINUED ON PAGE 12-A]

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive
[411] diet that has undergone recent changes: trade salt is almost universally used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Chruch does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jasembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

292 531 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who 301 may spend days working out the precise effect he wants. Similarly the *hambo* 531 are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body [778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 *Music, Dance and Song.* Today the great occasions when body decoration is performed mainly coincide with Christian festivals – Christmas, Easter, and 533 name days of saints. But these dates tend to be close to the festive periods in the 535 traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generation, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

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OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikuri*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tribes (twelve items), including in his list many *hambo* still in common use. Williams (1930) criticised this account on two grounds: some kinds of *otohu* were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed up in full dancing regalia, after which they make an impressive début at the village dancing ground. The ritual is known as *kogumbari*. It is performed by an expert whose main concern seems to be with the aesthetics of dressing up, and who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[3] this is not part of the initiation ritual as such, which occurs immediately after *kogumbari*. The dressed up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*gguma*) who recite their feats of war, their killing of victims. Initiates sit on a row of sticks laid on the ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind.

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function.

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From

£2.90 by 16 relatives of the host's eldest daughter's husband (the one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

The majority of the persons present attended because of their residence in neighbouring communities and claimed no kinship links with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

Transfers of property at this feast differed markedly from those in feasts of the traditional type. Firstly, the food was contributed by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

In this village many of the older people wear only loin cloths made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

[1] See p.74.

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution. 574 292 177

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingua franche, the less prominent of the Orokaiva people kept largely to themselves. 574 191 198

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words. 574 534 574 533

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films. 574 535 [177]

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows. 574 562

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m. [533] [535]

583 and leaves which irritates the skin. This was accompanied by general merriment. It was said to be a tradition, though the people gave no explanation of its significance. The women chattered together while they prepared and cooked taro, and most men sat in the shade-house chewing betel and talking. The groom and the organizer collected firewood and erected a temporary [292] shelter of coconut fronds adjacent to the shade-house. From [302] 9.30 a.m. to 10.30 a.m. some of the groom's close female kin dressed the bride, decorating her with traditional ornaments, fastening a bark-cloth sarong around her and spraying her hair with fresh coconut oil. The groom's supporters expected the bride's father and his party to arrive at Hohota at midday. When they did not, the waiting group became restless.

The bride's father had summoned the people who were to share the bride-wealth to his house to discuss the attitude they would adopt towards the contributing party when the two groups met at Hohota. They decided to irritate the groom's supporters by [292] delaying and did not arrive until 3.00 p.m. As they approached the organizer's house, a man dressed in bark-cloth and ornaments and carrying a spear emerged from amongst them. A similarly attired man advanced from the organizer's party, who rose to their feet. The two men faced each other about thirty yards apart and, brandishing their spears, repeatedly rushed at each other and retreated for approximately five minutes.[1] During this time the bride's father's party moved quietly towards the organizer's house and the two groups sat on the ground outside.

[292] Apart from the bride and the two men carrying spears, people [301] wore normal clothing, although some had armbands and necklaces which may have been specially donned for the occasion.

The bride's father, who remained standing, asked whether the bride-wealth was ready. The organizer replied that it would not be ready until the bride's father sat down. This clearly offended him and tension quickly mounted in both groups. An argument broke out and climaxed when two of the groom's supporters accused the bride's father of setting an unreasonably high price and of lacking generosity by refusing to reduce it when the groom's father died. Thoroughly aroused, the bride's father shouted that he would not accept the payment, that he would take his daughter and in high dudgeon stalked off. The bride's brother supported him by returning $3.00 which had been given as part of the kina. Three people who each contributed $2.00 to the main payment withdrew the money during the dispute.

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1 Williams (1930:141) notes that a similar manoeuvre, asu, which involved many supporters of bride and groom, was 'highly characteristic' of bride-wealth transfers in the 1920s.

Ornament	Where worn	Description	Assessed cash value
Parasi	Neck and hangs on chest	Made of brass from army dump or from tooth brush handle	5/-
Hono	Held in teeth and hangs on chest	Made of two large pigs' tusks	5/-
Poino (saima)	Head	Made of white sea-shells	5/-
Perere (keri)	Neck	White seashells	4/-
Hau (kuri)	Neck and hangs on chest	Large seashell beads	4/-
Sipe	Neck and sides	Made of silvery sea-shells	4/-
Simba	Head	Seashells	4/-
Ori	Neck	Seashells	4/-
Jaja	Head	Seashells	4/-
Matajo	Belt	Made of string and seashells	2/-
Sara	Head	Seashells	2/-
Erumo	Hangs from shoulder	Made of several sea-shells	2/-
Paho	Held in teeth	Large seashells	2/-
Hura	Forehead	Seashells	2/-
Sapi	Neck	Unknown	2/-
Sameme	Arm	Arm band made of trochus shell	2/-
Feather head-dresses (di) in descending order of value			
Samba (rokou)	Head	Bird of Paradise feathers	10/-

Head-dress	Where worn	Description	Assessed cash value
Ungaijawo	Head	Rare mountain parrot	5/-
Homboru	"	Cassowary feathers (dark)	2/-
Usege	"	Cassowary feathers (yellowish green)	2/-
Tuna	"	?	-
Suni	"	Red parrot	-
Waiwa	"	Small red parrot	-
Agena	"	White cockatoo	-
Pijama	"	White feathers from hornbills' tails	-
Koro (waja)	"	Black feathers from hornbills' wings	-
Peremo	"	Hornbills' beaks	-
Guvero	"	?	-
Pupu	"	?	-
Borongo	"	?	-
Kombu	"	?	-
Amone	"	?	-
Karenga	"	Large blue parrot	-
Kahu	"	?	-
Gere	"	?	-
Kaumba	"	?	-
Hoiroi	"	?	-
Sara	"	Mixture of various feathers	-
Asigi	"	?	-
Suni	"	?	-

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

III

The above outline of the glories of *hanke* and the pains of *tihanga* present a model remarkably like Sahlins's 'balanced exchange', but drawn from what one might call Orokaiva ethnosociology. This Orokaiva model is, however, no more than a first lesson in reciprocity. My informants, immediately after telling and explaining the Javaite Poromo tale, proceeded to a second lesson on what they considered a slightly more advanced level. This was prefaced by: 'I should like to tell you why we tell the story of Javaite Poromo'. It soon turned into the recounting of another myth, complete with commentaries and explanations.

A handsome young man came to a village, married a girl but instead of taking her to a village, he took her deeper and deeper into the bush. It turned out that he was, in fact, a pig who had merely disguised himself as a man for the visit to the village. They lived in the bush where she had a son from him who was a white cockatoo (*agena*). As the pig, together with his friends, now wished to kill the woman, she took refuge, with her son, on a *peromba* tree. When the pigs proceeded to try and uproot the *peromba* tree the mother sent her son to her native village with a message. When he returned, the pigs had almost uprooted the tree, but they fled safely, the mother in the son's beak. As they arrived, the mother warned her kinsmen to expect the pig shortly.

When the pig arrives, he is fully and impressively decorated as before—the tale mentions specifically his fine tapa cloth, his *ganda*, his pineapple club, his headdress of red cockatoo feathers, his shield. The kinsmen convey him to a platform with ceremonial greetings appropriate to a visiting affine, fall upon him with spears, cut him into small pieces and eat him.

The commentary given by informants briefly shows the link between this tale and the question of reciprocity. It was by the killing of the pig, informants said, that the present relationship between pig and man was at last established—they kill us; we kill them; they are given to the land for us to eat. This is in contrast with relations between men, based on mutual visits and friendship. This contrast between pig/man and man/man relationships is not in the body of the text, but its relevance was pointed out to me by the two informants.

It will be fully clear to any initiated Orokaiva why this tale explains the principle of reciprocity. It is also probably quite clear to any trained anthropologist. I think, however, that I am obliged to offer a translation into western jargon. The tale is not for children but, it is implied, for initiated men, i.e. those who have a knowledge of spirits. Uninitiated people think that the strange decorated figures one sees at certain ceremonials are spirits, because they have the plumes of birds, the paint of the dead and the bone and shell ornaments of the ancestors. This is not so; these figures are all men disguised as spirits and ancestors. These disguises ought to be so perfect that the person beneath them is not recognisable. In any case, if anyone recognises them, it would be very rude to make this known. They must be respected in every way as though they were the ancestors they represent. The initiated, however, know that the living man and the ancestor are both present in the decorated man.

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[213] duction of guns and snorkels which greatly increased yields for
[199] some years, but then led to a greater scarcity than had ever been known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepo were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognised and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966.

235 My prognosis for pigs as an economic resource is poor. The fowl [261] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [293] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I [579] understand it, should have rated at least one pig, the people of Sivepo killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

438 There is a great shortage of both pigs and fowls for these
439 ceremonial occasions. Pigs are bought for high prices ($20 to $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

241 We may distinguish, among local plant resources which yield
311 economic products, those plants which are native to the district and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepo sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[2] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepo. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepo acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

511 177 trade stores and wartime dumps. Most of the tools used regularly were purchased, but those in less constant use, such as picks, rakes, hammers and saws were mostly salvaged. The 'swimming glass' (goggles for fishing) is the only common piece of equipment not used in Sivepe.

[354] Inonda differs from Sivepe in household goods in that hurricane lamps are in common use, partly perhaps because kerosene is available at the trade store. More people own torches, which are often used when hunting by night. Mosquito nets also are far more common in Inonda (although many are in poor condition) and this in part is [415] due to a higher incidence of mosquitoes. Four households possess 44-gallon drums to collect rainwater.

511 [214] Several women make their own dresses and skirts and one has a flat-iron (which was not used during the survey). Laplaps are much less common in Inondd than in Sivepe.

The different environments of the two villages are illustrated by various items in Table 4:14.

Table 4:14

Inonda: household property derived from the subsistence sector

Household no.	16	17	18	19	20	21	22	23	24
Item									
Sago-beater	4	1	-	3	-	1	1	-	2
Fishing net	1	1	1	-	-	1	1	-	-
Spear	3	7	-	3	2	4	3	2	2
Sleeping mat	7	3	2	2	-	2	1	4	2
Tapa cloth	1	-	20	1	-	2	-	-	5
Comb	-	-	-	1	-	-	-	-	-
Lime pot	-	-	1	1	1	-	-	-	1
String bag	5	2	4	1	2	4	2	6	6
Drum	-	2	-	1	-	1	1	1	1
Di and hambo	-*	28**	-	-**	7	-***	5	-***	-ǂ
Clay pot	-	-	-	-	-	-	-	1	-

* Kept by relative in another village; quantity unknown.
** Given to household 17 by household 19 who retains right of use.
*** Some given away in exchanges, others stolen.
ǂ Unknown quantity kept by daughter in another village.

In Sivepe there are no hunting or fishing spears or fishing nets, nor are there any sago-beaters whereas most Inonda men possess both spears and sago-beaters. The greater number of tapa cloths in Sivepe is probably related to its greater distance from Popondetta, and so to the general level of acculturation. This likewise accounts for

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hauau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

342

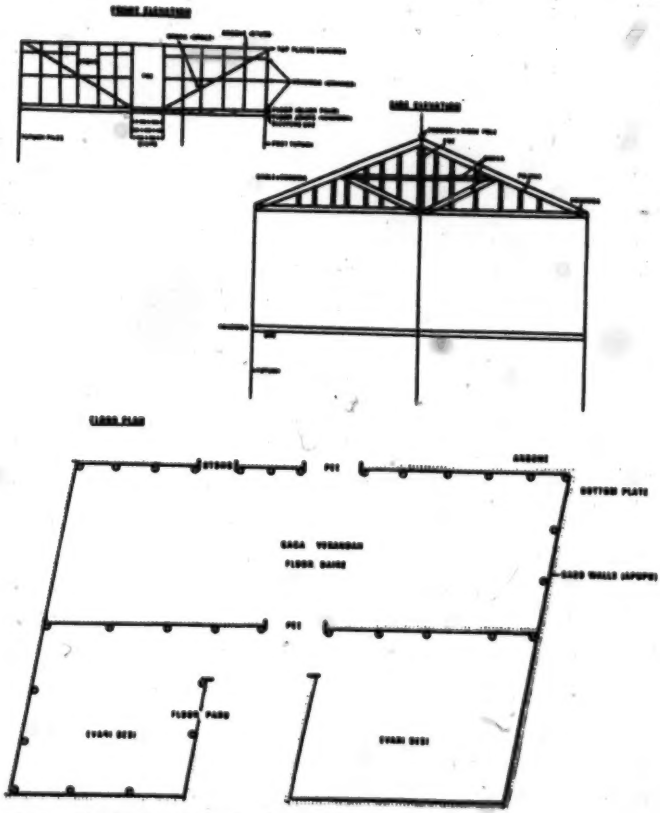

Fig. 3. Construction of a modern Orokaiva house.

(*haruu*) in the heat of the day, and sometimes sleep there at night. Yams are stored under the roof. 343

Plastic Arts. As Mauss (1967: 96) has suggested, the best starting point in the description of plastic arts is the decoration of the body. Even though the elaborate hair dressings described by Williams are no longer seen for everyday wear, every opportunity is taken to decorate the hair in some way, especially with a few feathers. It is at the ceremonial dances that the full range of body decoration is seen: face painting, feather head-dresses, ornaments. The latter are worn on the forehead, held in the teeth, suspended from ears and nose, as necklets and as armlets. 302 301

292 531 The head-dresses (*dī*) and ornaments (*hambo*) are themselves artistic creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who 301 531 may spend days working out the precise effect he wants. Similarly the *hambo* are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body [778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *dī* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 533 535 *Music, Dance and Song.* Today the great occasions when body decoration is performed mainly coincide with Christian festivals – Christmas, Easter, and name days of saints. But these dates tend to be close to the festive periods in the traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generation, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified with it. Identity, in this instance,[1] is not defined as attached to an individual but rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will henceforth regard it, in the same sense, as a symbol of identity. The ornament is then called an *otohu*, a term to be defined later. It is worn by its owner and those who see it recognise it as a symbol of its owner's moral integrity. It indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

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OJ23 Orokaiva OJ23
Mountain Orokaiva

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*pauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some form of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

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OJ23 Orokaiva OJ23
Mountain Orokaiva

tribes (twelve items), including in his list many *hambo* still in common use. Williams (1930) criticised this account on two grounds: some kinds of *otohu* were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed up in full dancing regalia, after which they make an impressive début at the village dancing ground. The ritual is known as *kogumbari*. It is performed by an expert whose main concern seems to be with the aesthetics of dressing up, and who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[2] this is not part of the initiation ritual as such, which occurs immediately after *kogumbari*. The dressed up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*aguma*) who recite their feats of war, their killing of victims. Initiates sit on a row of sticks laid on the ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

then takes up a position behind the initiate while the *aguma*, standing in front of him, teases him by pretending to offer him the *otohu*. When the initiate stretches out to receive it, the *aguma* snatches it back again. It is tossed over the initiate's head to the man behind him, or to spectators or from one spectator to another. Williams reports:

> It is properly at this stage, while the initiate is waiting to receive his ornament, that the *aguma* lays upon him certain injunctions of an ethical character. These are always associated with the *otohu* and, as we shall see, they throw some light on the obscure meaning of the word. As he proffers and withdraws the ornament, the officiating *aguma* exhorts the candidate to refrain from thieving, from adultery, from quarrelling and from such lawless acts as killing a neighbour's dog. (1930: 191)

After describing the ceremony of presentation, Williams turns to the explanation of the word *otohu*. *Otohu*, he says, tend to be regarded as rather beautiful objects but embody a social distinction as well. The wearing of an *otohu* 'implies that the owner has paid a pig (if he acquired it in adulthood), or that it has been paid on his behalf, and thus the ornament has been formally and regularly acquired' (*ibid.* 203). Sometimes the *otohu* is acquired in return for the body of a man, rather than a pig, but Williams finds (unlike Beaver 1920)

> no very essential difference between the 'pig *otohu*' and the 'man *otohu*'. They are of the same nature, but one is bought with the body of a pig and the other with that of a human victim. . . .
> It would appear that the homicidal *otohu* or *esa* was less an *insigne* conferred, *honoris causa*, upon the man-killer as such, than an ordinary *otohu* purchased with the body of his victim. (*ibid.*)

Williams saw that his theory brought him into conflict not only with Beaver's explanation, but also with apparently obvious implications of the ritual of conferment. Why did the *aguma* always recite his own past killings? Does not this indicate an association between *otohu* and man-slaying?

Instead of elucidating this, Williams turns to interesting data on the usages of the word *otohu*. As an adjective, it means: well-behaved, decent, diligent, generous, respectable, set apart, holy. 'An *otohu* man was he who went about his work quietly, who returned from his garden with wood on his shoulder and set it down, then chewed his betel without "rowing".' There is a direct connection, Williams remarks, between the virtues subsumed under the word *otohu* and the injunctions laid upon the initiate by the *aguma*. He concludes that the possession of an *otohu* creates a social obligation, namely to behave in the manner called *otohu*. As for the derivation of the word, Williams has no suggestions to offer except one interesting point: the Baruga, southern neighbours of the Orokaiva, have a word *kontopo* which is used in the sense of *otohu* but *also* in the sense of *hae*.[3] He wonders whether the *otohu*, 'originally', might have been a clan emblem (*ibid.* 206). In addition he reports, but gives no significance to, the fact that the larger of the two flutes used at initiation ceremonies is called *otohu*. The sacred flutes are always played in pairs by two men facing one another. One of the pair (the *otohu*) is larger than the other, which is called *e* (= mother).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*sivo*). A man

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *he kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 [798] When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 [266] The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6 Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embuhi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 242 716 [825] [824]

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. It always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

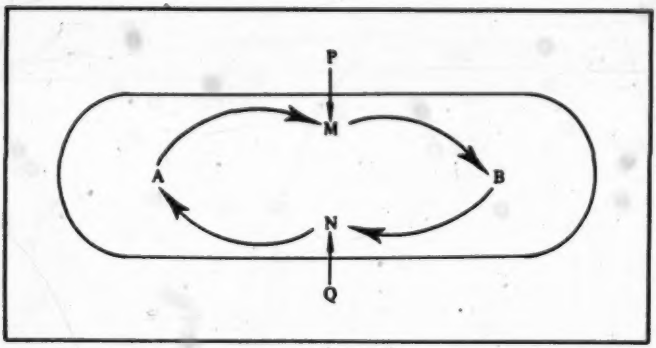
301 431 425 556 an economic standpoint, it is important that they represent storable wealth – the only storable wealth of the Orokaiva. Nearly every family today keeps *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

431 121 In the last five chapters exchange has been discussed largely on the assumption that it occurs on two levels. First, it occurs on the mythico-religious level where exchange relations are stated in the form of binary oppositions or possibly also some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

434 was in recognition of kinship obligations including bride price
[583] and gifts while 49 per cent of income was derived from these
[431] sources.
[525]

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging
[731] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] Shell and bone ornaments (hambo) and head-dresses (di) - made
[23] from feathers of the bird-of-paradise, mountain parrots, hornbills
[32] and cassowaries - known collectively as di hambo, are held by the
[555] people of Sivepo as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A, [See Category 454, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have [555] taken over some of the functions of traditional valuables and in some situations one is exchanged for the other. In the past it [301] was recognized that skill and initiative in hunting and trading [237] were necessary to acquire di hambo but today, with safer communi- [321] cations and better hunting equipment, they are more easily obtained. People are willing to buy some of the more valuable items or some [439] cheaper items of European manufacture which can be adapted to serve as a novel decoration.

Although they constituted the greater part of the goods changing [428] hands on traditional ceremonial occasions, di hambo are evidently not now circulating rapidly. A little less than half of these valuables held by members of the sample had been inherited and nearly a quarter had been acquired by the owner by hunting or collecting.

A complete adjustment between the roles of money and of non-monetary valuables has not yet been made. They circulate in the same exchanges and both are considered essential; it may now be [583] accepted practice that each should be contributed by or distributed amongst different categories of kin on these occasions.[1] But the opinion was widely expressed that as people are increasingly demanding cash as a large part of bride price payments, the intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely interchangeable, we collected details of the prices paid for any items of di hambo which had been purchased by the sample,[2] and by using these in conjunction with the unitary scale of value on which informants could readily place all items, we assessed the possible cash equivalent of non-monetary valuables acquired by the 12 households from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

Company already operates a trade store with a liquor licence close to the village.

(c) Other household property

The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petos (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

* For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

£2.90 by 16 relatives of the host's eldest daughter's husband (the one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

The majority of the persons present attended because of their residence in neighbouring communities and claimed no kinship links with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

Transfers of property at this feast differed markedly from those in feasts of the traditional type. Firstly, the food was contributed by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

In this village many of the older people wear only loin cloths made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

[1] See p.74.

589
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Bride and groom outside the organiser's house on the morning of the first day of the bride-wealth exchange

[516]

Transferring the cash

[p. 80]

583 and leaves which irritates the skin. This was accompanied by general merriment. It was said to be a tradition, though the people gave no explanation of its significance. The women chattered together while they prepared and cooked taro, and most men sat in the shade-house chewing betel and talking. The groom and the organizer collected firewood and erected a temporary [292] shelter of coconut fronds adjacent to the shade-house. From [302] 9.30 a.m. to 10.30 a.m. some of the groom's close female kin dressed the bride, decorating her with traditional ornaments, fastening a bark-cloth sarong around her and spraying her hair with fresh coconut oil. The groom's supporters expected the bride's father and his party to arrive at Hohota at midday. When they did not, the waiting group became restless.

The bride's father had summoned the people who were to share the bride-wealth to his house to discuss the attitude they would adopt towards the contributing party when the two groups met at Hohota. They decided to irritate the groom's supporters by [292] delaying and did not arrive until 3.00 p.m. As they approached the organizer's house, a man dressed in bark-cloth and ornaments and carrying a spear emerged from amongst them. A similarly attired man advanced from the organizer's party, who rose to their feet. The two men faced each other about thirty yards apart and, brandishing their spears, repeatedly rushed at each other and retreated for approximately five minutes.[1] During this time the bride's father's party moved quietly towards the organizer's house and the two groups sat on the ground outside.

[292] Apart from the bride and the two men carrying spears, people [301] wore normal clothing, although some had armbands and necklaces which may have been specially donned for the occasion.

The bride's father, who remained standing, asked whether the bride-wealth was ready. The organizer replied that it would not be ready until the bride's father sat down. This clearly offended him and tension quickly mounted in both groups. An argument broke out and climaxed when two of the groom's supporters accused the bride's father of setting an unreasonably high price and of lacking generosity by refusing to reduce it when the groom's father died. Thoroughly aroused, the bride's father shouted that he would not accept the payment, that he would take his daughter and in high dudgeon stalked off. The bride's brother supported him by returning $3.00 which had been given as part of the kina. Three people who each contributed $2.00 to the main payment withdrew the money during the dispute.

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[1] Williams (1930:141) notes that a similar manoeuvre, asu, which involved many supporters of bride and groom, was 'highly characteristic' of bride-wealth transfers in the 1920s.

APPENDIX B

436
301
435

Non-monetary valuables

Ornaments (hambo)

in descending order of value(1)

Ornaments	Where worn	Description	Assessed cash value
Daremo	Forehead	Made of red sea-shell	£3 each
Dambariso	Forehead	As above but having different design	£2
Hoave	Single held in teeth, double hangs on chest	Made of large white seashells	£1
Bati	Neck	Made of dogs' teeth	10/-
Gajina	Arm	Made of trochus shell	10/-
Bagi (ajawa)	Neck and hangs on chest	Made of trochus shell	10/-
Ganda	Held in teeth	Made of several young pigs' tusks	5/-

(1) Several villagers were asked separately to rank hambo and di in descending order of value. There was agreement on most items and minor discrepancies were eliminated by discussion with the elders.

Ornament	Where worn	Description	Assessed cash value
Parasi	Neck and hangs on chest	Made of brass from army dump or from tooth brush handle	5/-
Hono	Held in teeth and hangs on chest	Made of two large pigs' tusks	5/-
Poino (saima)	Head	Made of white sea-shells	5/-
Perere (keri)	Neck	White seashells	4/-
Hau (kuri)	Neck and hangs on chest	Large seashell beads	4/-
Sipe	Neck and sides	Made of silvery sea-shells	4/-
Simba	Head	Seashells	4/-
Ori	Neck	Seashells	4/-
Jaja	Head	Seashells	4/-
Matajo	Belt	Made of string and seashells	2/-
Sara	Head	Seashells	2/-
Erumo	Hangs from shoulder	Made of several sea-shells	2/-
Paho	Held in teeth	Large seashells	2/-
Hura	Forehead	Seashells	2/-
Sapi	Neck	Unknown	2/-
Sameme	Arm	Arm band made of trochus shell	2/-

Feather head-dresses (di) in descending order of value

Samba (rokou)	Head	Bird of Paradise feathers	10/-

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

III

The above outline of the glories of *hande* and the pains of *tihanga* present a model remarkably like Sahlins's 'balanced exchange', but drawn from what one might call Orokaiva ethnosociology. This Orokaiva model is, however, no more than a first lesson in reciprocity. My informants, immediately after telling and explaining the Javaite Poromo tale, proceeded to a second lesson on what they considered a slightly more advanced level. This was prefaced by: 'I should like to tell you why we tell the story of Javaite Poromo'. It soon turned into the recounting of another myth, complete with commentaries and explanations.

A handsome young man came to a village, married a girl but instead of taking her to a village, he took her deeper and deeper into the bush. It turned out that he was, in fact, a pig who had merely disguised himself as a man for the visit to the village. They lived in the bush where she had a son from him who was a white cockatoo (*agena*). As the pig, together with his friends, now wished to kill the woman, she took refuge, with her son, on a *peromba* tree. When the pigs proceeded to try and uproot the *peromba* tree the mother sent her son to her native village with a message. When he returned, the pigs had almost uprooted the tree, but they fled safely, the mother in the son's beak. As they arrived, the mother warned her kinsmen to expect the pig shortly.

When the pig arrives, he is fully and impressively decorated as before—the tale mentions specifically his fine tapa cloth, his *ganda*, his pineapple club, his headdress of red cockatoo feathers, his shield. The kinsmen convey him to a platform with ceremonial greetings appropriate to a visiting affine, fall upon him with spears, cut him into small pieces and eat him.

The commentary given by informants briefly shows the link between this tale and the question of reciprocity. It was by the killing of the pig, informants said, that the present relationship between pig and man was at last established—they kill us; we kill them; they are given to the land for us to eat. This is in contrast with relations between men, based on mutual visits and friendship. This contrast between pig/man and man/man relationships is not in the body of the text, but its relevance was pointed out to me by the two informants.

It will be fully clear to any initiated Orokaiva why this tale explains the principle of reciprocity. It is also probably quite clear to any trained anthropologist. I think, however, that I am obliged to offer a translation into western jargon. The tale is not for children but, it is implied, for initiated men, i.e. those who have a knowledge of spirits. Uninitiated people think that the strange decorated figures one sees at certain ceremonials are spirits, because they have the plumes of birds, the paint of the dead and the bone and shell ornaments of the ancestors. This is not so; these figures are all men disguised as spirits and ancestors. These disguises ought to be so perfect that the person beneath them is not recognisable. In any case, if anyone recognises them, it would be very rude to make this known. They must be respected in every way as though they were the ancestors they represent. The initiated, however, know that the living man and the ancestor are both present in the decorated man.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Now who were these ancestors? They were all human but at the same time they might inhabit the body of an animal or borrow some of an animal's bodily characteristics. Such a tendency would go with a very particular affinity with the animal in question, a partaking in its powers. Many stories are therefore told of ancestors with such affinities. As for pig stories, the most famous is that of Totoima, a man who on occasion wore pigs' tusks and then was murderous in the extreme. When he was finally killed, his body was cut into many pieces and the men who ate from it multiplied miraculously and became the ancestors of great tribes. Another story, of which only a very incomplete version survives today,[6] concerns a 'pig-man' who had assumed the body of a pig but was really a man. Men built a house for him and gave him taro for which he gave them real pigs in exchange. Men broke off this exchange, however, and since then men and pigs have not made exchanges. Nonetheless, he is remembered as a great man as he set up the practice of exchanging and was the first to provide men with pigmeat, thus making them strong.

In this time of the ancestors, men and animals exchanged and communicated with each other without restriction. Yet at a certain moment, a strict division began to be made between those with whom one can make exchanges and those who must be regarded as outside exchange. Unless there are such clear limits to exchange, men would never be safe. This is what we learn from the tale quoted above, the subject of which is, as one might say, *The Pig with the Ganda*. Now, as the story is told, this was not a man in the guise of a pig, but it was really a pig. When he came to a village, he changed the various parts of his body into the ornaments that men use even today for ceremonial dress. His bristles changed into the feathers of the red cockatoo, his jaws and teeth changed into the ornament called *ganda*, normally made by men from pigs' tusks and dogs' teeth and held between the teeth when men dance. It was in that guise he could seduce women (see fig. 1).

He changed himself, so to speak, from a real pig into a symbolic pig and was thus indistinguishable from a man who would likewise change himself into a symbolic pig.

It is the case that whenever great exchanges are made between men, they all wear the decorations and disguises given to them by their ancestors. This is necessary because today, men are always at war and harmony between men existed only in the days of the ancestors. During feasts men therefore recreate the world of the ancestors which was the only world of peace. But the pig with the *ganda* must be excluded from such feasts. There must be separation and thus confinement of the world of exchange.

I have given this reconstruction informally, instead of deriving it systematically from the many texts on which it is based. It exemplifies the type of religious discourse which enters into any serious explanations offered by Orokaiva. What it explains, in effect, is 'negative reciprocity', the state of permanent war that exists outside the confined universe of ceremonial exchange. This certainly includes the war between man and nature, but most probably it includes more than that. It is worth remembering that Orokaiva describe the mountain tribes with whom they refuse to make exchanges as

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

301

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites who tried to make ethnographic maps of the Northern District tried to find the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put on the map, as the *pereho* category included quite different groups according to who was speaking. My concern was here to give the conceptual boundaries of the exchange universe in Orokaiva terms, but there are real geographical boundaries, different for each village, which correspond to such concepts. Williams (1930) already spoke of two systems of Orokaiva morality, one within the 'sympathy group' which is his term for the exchange universe, and another where there is, in principle, a permanent state of total war even though there will always be a few islands where trading partnerships are found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and negative reciprocity, what about Sahlins's most fruitful and original category, generalised exchange? It is possible to find a category of relations among Orokaiva where it is denied that any *tihanga* is ever recognised. There are plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I doubt however whether that particular category corresponds to 'generalised reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

342

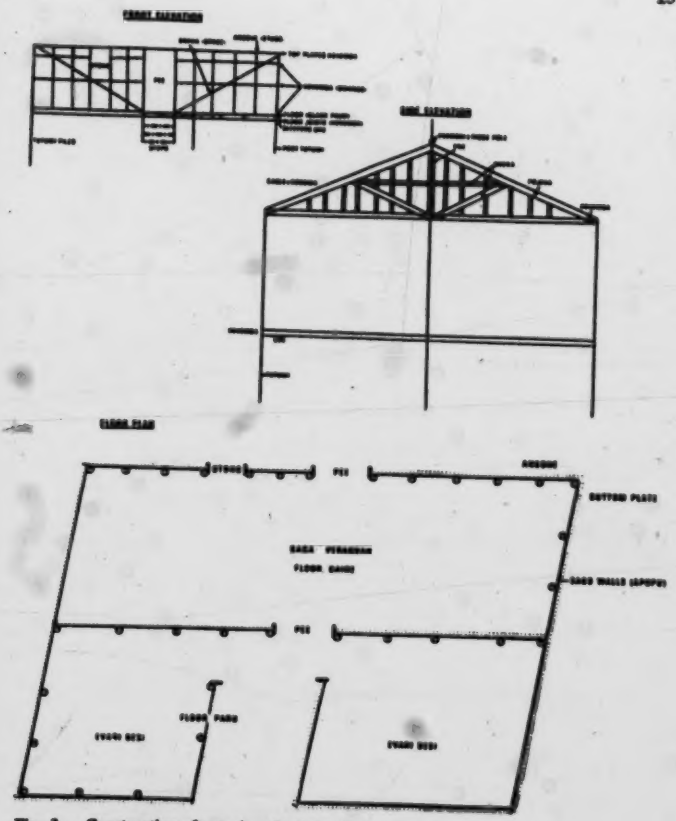

Fig. 3. Construction of a modern Orokaiva house.

(*haruu*) in the heat of the day, and sometimes sleep there at night. Yams are stored under the roof. 343

Plastic Arts. As Mauss (1967: 96) has suggested, the best starting point in the description of plastic arts is the decoration of the body. Even though the elaborate hair dressings described by Williams are no longer seen for everyday wear, every opportunity is taken to decorate the hair in some way, especially with a few feathers. It is at the ceremonial dances that the full range of body decoration is seen: face painting, feather head-dresses, ornaments. The latter are worn on the forehead, held in the teeth, suspended from ears and nose, as necklets and as armlets. 302 301

partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in the sense that the fluid would drive away dangerous spirits (1930: 175). With the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind.

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function.

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 11. Taro, pigmeat, arara, rice and tinned fish on display in Inonda prior to presentation to a Girua settler.

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Plate 12. Stalls at Popondetta market, where people from Inonda frequently sell their produce.

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431 one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

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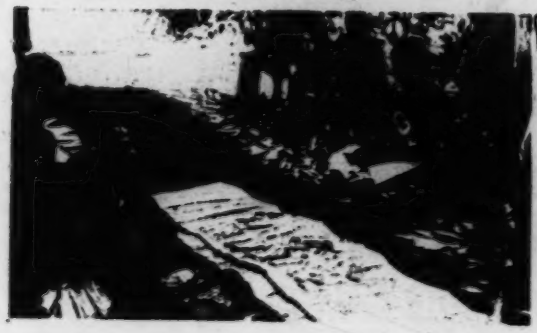
[516]



Transferring the cash

[p. 80]

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18: Dakeyne K-5 · (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

142
302
287
531

Fig. 8. *Bark-cloth (tapa). Each manufacturer has her own special designs traced in red and black dyes on the white material*

[P.11-B]

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.
14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.
15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.
16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).
17. A discussion of work specialization among Orokaiva (of which there is but little) will be found in Schwimmer (1967). An interesting type of specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.
18. For a full discussion of the concepts involved see Schwimmer (1979a).
19. The text: "*Umo meni ingesoa, eti atimbesoa, i umbesoa, umo timbesoa; donda deire tapa amo aisi oa eto tunga osaga umbesoa.' Ainga ena. Ainga iru ta ena: 'Adam, umo ainga hogoro umbesoa, andaga aisi oa eto i guipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure galiha aisi oa.' Ainga ena. Ainga etò ikena avo embo Eave te Adam te ainga ena: 'Ainga dombo dago tapa endata emo ainga do aisi uje eagova: pure te deire amo tapa hamo memega te tunga osaga te tapa pamona ainga ga eavora, dago embo ainga hamo memega te tunga osaga te tapa pure galiha avo eavora. Eto donda matu nunuga ena avo indie kwatura avo. Aravoreta, unga kisekiae eto God na taekena avo umbuto bulia. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainga tunga javatoho iji amo tunga javatoho aisi ova.' Ainga ena. Avo embo dago tapa emo oroho enite ue irova.*" Robert, Sivepa, 1966.
20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na tamani eo pambuto re koto ea, amiko donda aravo porukau eavo pure purusa.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.
21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xanthosoma* sp.) for classical taro (*colocasia* sp.)

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER II

THE SETTING

1. *Geography*

Although several good descriptions of the physical environment and general culture of the Orokaiva are available (e.g. Williams 1930, Waddell and Krinks 1968), a brief sketch of the setting of this study may be convenient. The Orokaiva live in the Northern District of Papua, a district bounded on the south-west by the Owen Stanley range, on the west by the Mandated Territory of New Guinea. Although the administrative centre of the district, Popondetta, lies only about 150 miles from Port Moresby, there is no road connection, so that the only communications with the outside world are by air and sea.

The Orokaiva live on the footslopes of Mount Lamington and on the plains to the north and east of these footslopes. This region is, by New Guinean standards, highly favoured by nature, as Brookfield recently emphasised (1966). In a classification of the natural resources of New Guinea according to the degree of limitations to land use', Brookfield describes a large territory surrounding Mount Lamington as 'suitable for cultivation with a mild degree of limitation'. This comprises 'some of the largest tracts of such good land in the whole country' (*ibid.* 47–8).

One distinguishing feature of the region is its lithological composition: there is an abundance of Pleistocene and recent volcanic deposits. The total area of such recent ash and lava deposits found in New Guinea is small, but notably fertile. Brookfield maps the annual rainfall of the region as between 100 and 150 inches. This is not so high that the land becomes permanently or semi-permanently waterlogged. On the other hand, the region mostly lacks well-marked dry seasons during which the soil would rapidly dry out. With regard to terrain, the region has extensive areas of low and moderate relief and good drainage. As for density of population, Brookfield paints a somewhat idyllic picture that needs correction: 'the greatest concentration of population, rising locally to 60 per sq. mile, lies on the best land in the area – the little-dissected footslopes of Mount Lamington, where smooth topography is combined with fertile soils and good drainage' (*ibid.* 64).

We find, in fact, that local densities of 200 and more per sq. mile are not at all rare (Rimoldi 1966: 4). In two villages I surveyed, I found population densities to be 180 (Sivepe) and 135 (Hohorita) per sq. mile. Rimoldi's analysis shows that the Sivepe population density is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose (50 persons of the Jegase and Timumu clans) happened to have under-average land holdings, of 138 acres. Rimoldi shows that 110 of these acres are needed for

[TEXT CONTINUED ON PAGE 15]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by identifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

S: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

TABLE II/3

FOOD PLANTS PER HOUSEHOLD: INONDA AND SIVEPE COMPARED

(*Sources*: Crocombe and Hogbin, 1963: 8; Rimoldi, 1966: 17)

Crop	*Inonda*		*Sivepe*	
	Average	*Range*	*Average*	*Range*
Taro (*colocasia* sp.)	1.3 acs.	2.6–0.4 acs.	0.97 acs.	0.39–2.30 acs.
Sweet Potato	0.2 acs.	0.4–0 acs.	0.07 acs.	0–0.20 acs.
Corn	72 plants	140–0 plants	223 plants	0–442 plants
Bananas	81 trees	145–12 trees	71 trees	35–126 trees
Pitpit (*ina*)	56 clumps	181–4 clumps	88 clumps	0–400 clumps
Sugar	71 clumps	167–34 clumps	34 stools	11–54 stools
Yams	24 vines	61–0 vines	65 vines	0–136 vines
Manioc	10 plants	27–4 plants	a few	
Taro (*xantosoma* sp.)	5 plants	25–0 plants	28 plants	0–91 plants
Native Cabbage	–	–	22 plants	0–100 plants
Pawpaw	–	–	17 trees	5–32 trees
Beans	a few		17 plants	0–110 plants
Cucurbits	2 vines	10–0 vines	13 vines	9–28 vines
Shallots	a few		a few	
Ginger	–	–	a few	
Tobacco	–	–	18 plants	0–59 plants
Pineapples	1 plant	7–0 plants	no data	
Tomatoes	a few	–	no data	

311
241

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hohorita. My stay in Hohorita lasted for a month, and I made several return visits. This village lies thirteen miles from Popondetta on the road to Saiho, has forty-one dwelling houses and a population of 358. Hohorita and three contiguous hamlets are the home of the Sangara who survived the Mount Lamington disaster. The Sangara population was reduced by the eruption from some 3,000 to 195 people, who stayed together in the evacuation camp and later founded Hohorita, where the remnants of about a dozen clans may be found. By far the strongest clans in this village are those whose homes, at the time of the eruption, were at the outer edge of the devastation area and who were able to run away from the *nuée ardente* before the searing blast could reach them. 101 105

Hohorita, though built much earlier than Inonda (1957), was not beautified with the same care. The area between the two rows of houses was bare, except for some coconut and betelnut palms. The village was divided into two rectangles by a short row of houses. The front and back part were settled at different times and different clans were dominant. When I was working in the front half I would meet hardly anyone from the back half and vice versa. A feast house had been built in both the front and the back sections of the village. The feasts had been held just a few weeks before my arrival, to entertain neighbouring villages. Originally a combined feast had been planned, but disagreement had prevented it. There was no chapel in the village, but a mission station just next to it, with a white mission teacher, a mission school and several Papuan teachers who were in charge of church services. This was a contrast with Inonda, which was several miles removed from a school and even further from a mission. There was a woman's club with a small club house, but again this was supported by only a small minority.

Hohorita was entirely Christianised, in the sense that everyone had been baptised. A number of the older men had been educated in a mission station prior to the eruption and had become mission teachers while evacuated. When coffee became a lucrative cash crop – more lucrative than teaching – many of them had retired to the village. As a result the leadership pattern differed sharply from Inonda. About twenty men in Hohorita had held down occupations requiring some European skills, and these men tended to work out together the everyday and long-range decisions required in the village. The leading personality was, at that time, a well-educated man, who for years had been the chairman of the Higaturu Local Government Council. In Hohorita virtually everyone was growing coffee. Some men worked in the plantations nearby.

Ecologically, Inonda is characteristic of the alluvial plains region to the east Lamington foothills. Before the eruption, the concentration of population was entirely on the higher reaches of the tribal domain as rainfall and fertility are higher there. The lower portion of the territory, away from the mountain, was used for hunting. But the government discouraged reoccupation of the higher land, for fear of further eruptions. Hohorita is lower down than the old villages. The more elevated land is used a little less than before, and often for coffee rather than subsistence crops. The topsoil is volcanic loam; the rainfall is probably between 120 and 150 inches per annum. Population density is 135 per sq. mile. This is a little less than is usual on the Mount Lamington foothills, but prior to the eruption the population must have been very dense indeed. [133] [311] [34] [132] [161]

Sivepe. I stayed in Sivepe for about nine months, from September 1966 101

241 About 2 acres of land held by the sample were being used for food gardens by members of other clans. If we assume that the parties periodically exercising reciprocal usufructuary rights to each others' land eventually use comparable areas, the number of acres of a patrilineal group's land cultivated over several years will be roughly equivalent to the total area which it has itself cultivated.

(126) Chain and compass surveys were made of all current gardens cultivated by the sample. These gardens ranged from plots overgrown with weeds, but still yielding taro or sweet potato, to newly cleared areas. Measurements of the areas which were cleared during the last 2 weeks of our survey were made hurriedly and are less accurate than the other figures. The time spent clearing new areas in each of these 2 weeks was more than the total time spent on gardening recorded in any previous week and the figures below at least give a fair indication of the significant size of new clearings in relation to other categories of the area under cultivation shown in Table 2. The lack of rain at the time made it impossible to plant any of the new areas immediately.

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Table 2

Current garden areas
(acres)

	Area per head of population	Area per able-bodied person (over 16)	Area per household	Total
Garden currently producing	0.14	0.27	0.57	6.86
Garden planted not yet producing	0.12	0.23	0.48	5.81
Garden cleared not yet planted	0.10	0.20	0.43	5.17
Total area under cultivation	0.36	0.70	1.48	17.84

The 0.36 acres of current garden per head of population compares with the figure of 0.31 at Inonda (Crocombe and Hogbin 1963:10).

The proportion of currently-producing gardens seems to have been unusually small at the time of our survey. Sixty-one per cent of the garden area had been brought under cultivation in the past 5 months (2.2 acres per month), whereas the rest was all that was still producing after cultivation during the year before that. Some households had planted, harvested and abandoned some plots in the meantime. Most of the gardens which were being harvested

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during our stay had been planted within the previous 6 months and those which had been planted longer were generally well over a year old and were entering the closing phases of production.

One householder whose older garden had been destroyed by pigs had first cleared his present gardens only 5 months before our survey. Some of the older current gardens measured were almost exhausted and would only just last until the taro in the householders' new gardens matured. The supply of food from the old gardens in these cases was supplemented mainly by the newly-sown corn which matures in about 3 months, by tree crops, yams and Xanthosoma taro from small scattered stands.

In deciding on the time to establish new gardens for their future subsistence needs the villagers seem to have taken into consideration the prevailing seasonal conditions and the prospects of heavier rains a few months before our survey so that we noted only a few gardens that were made in the year before our arrival and already producing.

By determining the area which has been cultivated by each household since it made the first clearings for its current gardens a monthly rate at which it established gardens was calculated. The total area gardened monthly by the 12 households together was found to be 1.53 acres. The sample therefore cultivates 18.36 acres per year or 0.36 acres per capita.[1]

For the above reasons we believe that we would have obtained more reliable figures had we been able to extend the length of the survey to cover fluctuations in the rate of cultivation and in the ratio of new to old gardens. The figure of 0.36 acres as the yearly per capita requirement for garden land may be unusually high: however, the Survey of Indigenous Agriculture at Sivepe estimated that between April 1961 and March 1962, 53.76 acres had been brought under cultivation by the 139 people in the village, or 0.34 acres per capita. The mission from the International Bank gives the average per capita requirement as about 0.3 acres under this class of land use in Papua and New Guinea.[2]

If an average 6 year fallow cycle is followed, the present population of the sample cultivating land at the rate of 18.36 acres per year require 110 acres to maintain their present

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[1] The 4 households who had no current gardens older than 10 months had made these new gardens at the annual per capita rate of 0.51 acres compared with 0.29 for the rest of the sample who were still using earlier gardens.

[2] Mission from the International Bank 1964:74.

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311 standards of subsistence agriculture.[1] Their own property totals 138 acres.

c. Hunting and fishing

224 [136] These pursuits add variety ot the diet but provide comparatively little food. Most of the game surviving in the area is small and there are no large fish to be found in the mountain streams. Small marsupials such as the cuscus, bandicoot and, more rarely, the land wallaby, together with flying foxes and birds are the main sources of animal protein. Nets and hunting spears are generally used to catch these animals after they have been flushed out by the hunter's dog. Traps are seldom set for game but we were told this formerly was a more common technique. Snares for the smaller types of animal are often made by boys and one or two of the men. Two members of the sample owned licensed shotguns and these were very effectively and economically used. One of these men would place his services at the disposal of anyone who supplied cartridges for the gun; the other allowed a limited circle of people to use his gun. The guns were frequently used for hunting at night in the dry weather during our survey.

226 Neither of the two forms of concerted hunting common among other Orokaiva (the drive towards a pig net and grassburning, Williams 1930:45) is practised to any extent as there are few wild pigs and little grassland in the area.

Spears and fine-mesh nets are used in local streams to catch eels and the 7 types of small fish found. This task is shared by men and women usually when the water is low during a period of dry weather. They may search for fish with a net along the Sohu River wherever it passes through land held by a member of the village, but the small rock dams built by a man to form pools suitable for the use of the spear are made only where the river passes through his own land.

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[1] This requirement is 2.2 acres per capita. Barrau (1958:75) says that 2.5 to 5 acres per capita are sufficient for this type of agriculture in Melanesia, assuming the average area of garden is 0.25 acres and that the duration of bush fallow ranges from 10 to 20 years. In March 1951, 40 square miles of unrestricted land were considered suitable for resettling 4,500 of the survivors of the recent eruption (Plant 1951:4; Belshaw 1951:9). It was felt that these 5 acres per capita were enough only to meet the immediate requirements of traditional subsistence gardening for the next few years. (It was well-wooded and appeared 'most productive' and easily accessible by road.) Considerable population increases were anticipated.

7: Rimoldi et al. E,I-S (1962-1963) 1966 GJ23 Orokaiva GJ23 Mountain Orokaiva Sivepe

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249 657 stood untouched for about 20 years. In 1944 Humphries (1944:4) reported that 'the trees grew to maturity with very litte attention from the natives and today they are being tapped for the first time'.

[434] In 1941 an agreement under the Transactions with Natives Ordinance (1893-1935) was made between a European planter recently arrived in the area and the villages with rubber stands, whereby he obtained exclusive rights to tap, collect and dispose of the produce of all the trees, while from 6 per cent to 12 per cent (according to ruling market prices) of the gross sum obtained by the lessee was to be paid to the owners every 6 months; in general this meant that the owners received 1 penny to 3 pence per pound. The contract was to extend for 5 years and the lessee was to have the option of renewing it for a further period of 5 years.

The arrangement became effective in 1941 but was interrupted by the Japanese invasion of the Northern District. In 1943 A.N.G.A.U.[1] authorized the lessee to return to restart production from the trees. Mann (1954:35) says that

> [433] during 1944, under the supervision of the rubber division of the Production Control Board, tapping of some 250 acres of those smallholdings was organized. During 1945 production was over one hundred thousand pounds dry rubber, indicating average yields of about four hundred pounds per acre.

249 433 311 Various estimates have been made over the last 20 years as to the size and number of the rubber stands in the area. Mann's figure of 250 acres contrasts with the lessee's estimate of 110 acres,[2] and with Humphries' assessment of about 80 acres. There were 95 stands with a total of 7,721 trees listed in the 1941 agreement but during 1943-5 a further 42 stands were added so that most of the available stands were then included in the scheme.[3] In 1951 Belshaw claimed that there were roughly 6,000 rubber trees in the 'Periho' tribal area within what was formerly the Kokoda District and another estimate about the same time put the number of trees in this wider area at 10,000. The annual report of 1959 stated that 26,000 trees 'in the Awala area' were tappable. A

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[1] The Australian New Guinea Administrative Unit.

[2] Assuming this estimate and the figure of over 100,000 pounds for 1945 production to be accurate, we must conclude that the average yields were more than twice those given by Mann.

[3] It was reported by patrol staff that 'nearly all' the rubber stands were being worked from Awala in August-September 1943.

249 433 311 recent agricultural census listed 55 stands with 13,700 trees in the Saiho Census Division (which coincides roughly with the 'Periho' area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 657 [434] The agreement between the lessee and the villagers was modified in 2 ways after the war. When the scheme was resumed in 1943 the Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 [464] Until 1946 local villagers were employed by the lessee to tap their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] [623] The Village Constables had been responsible for seeing that the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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1 These would include self-sown trees.

2 There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

3 In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Chapter 1

The physical and social setting

This chapter summarises the physical and social background to current attitudes to cash cropping among the Orokaiva. 128

The physical environment

(a) Landforms (see Map 1)

Lying between the main New Guinea cordillera and the Pacific Ocean, the Popondetta sub-district[1] has a great variety of landforms and soils and, to a lesser extent, of vegetation.[2] Bounded on the south-west by the foothills of the Owen Stanley Range (4,000 ft) and on the south by Mt Lamington[3] and the Hydrographers Range (4,000 to 5,000 ft), the area comprises a broad plain sloping gently north-eastwards to the Pacific Ocean. Three elements may be distinguished within it: strongly dissected piedmont terraces, alluvial plains of volcanic materials (to the north-east of Mt Lamington) and flood plains from 10 to 25 miles wide extending from the terraces to the coast. All characteristically support primary or regrowth lowland forest except in the relatively drier and sandy areas, particularly on the plains north-east of Mt Lamington, where there are extensive stretches of grassland. 131 133 133 [137]

The CSIRO (Division of Land Research) considers (1964:17) that although there is more poor than good land in this area, 'some of the best land in the Territory' occurs on the gentle northern foot slopes of Mt Lamington and in parts of the flood plains where fertile volcanic soils and stratified sediments with a high organic content have developed. The major factors limiting land use are steepness of slopes in the mountain zone, and poor drainage and flooding in the lowlands. Soil deficiencies do not appear to be a serious limiting factor. 311 133

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[1] An area of 3,712 square miles.

[2] The following description is derived from CSIRO 1964:10-15.

[3] A volcano which last erupted in 1951, resulting in extensive destruction and loss of life.

8: Waddell & Krinks. E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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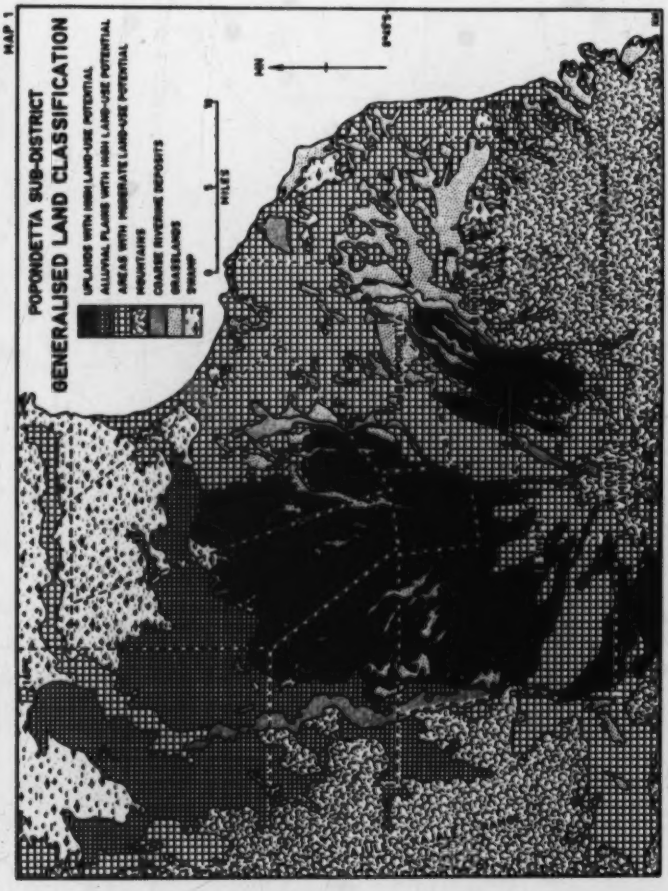

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Daksyns 1965:55).

[2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

[311] [136] [417]

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is
137 characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest
● 311 and various stages of regrowth, with little grassland. The land-use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

301 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'I' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

Chapter 8

The two villages compared

433 184 (a) Levels of activity in relation to available resources

In expending an average of 43.5 hours per man-week the Inonda villagers are slightly more active than their Sivepe counterparts, but the difference relates to the subsistence sector. Although both are communities of cultivators with taro the staple crop, the supplementary food producing activities are substantially more significant in Inonda, with fishing particularly important during the wet season. This more diversified economy partly explains the higher level of subsistence activity at Inonda (see Table 8:1).

More time is required to achieve subsistence at Inonda, principally because of the journey to work: 25 per cent of all activity time is devoted to travelling, even at the new site, compared with only 15 per cent at Sivepe.[1] Thus, if time spent in travelling is deducted, the difference between the two villages is eliminated, Inonda spending 25.1 hours per man-week on subsistence and Sivepe 25.5 hours.

Environmental differences provide some explanation for Inonda's subsistence economy being more diversified and the location of activities more dispersed. Not only are the soils around Sivepe of a uniformly high agricultural value but all the land is forested and therefore potentially available for cultivation. By contrast, [311] the soils at Inonda are of variable quality and at least one-third of the total area is grassland and therefore unavailable for cultivation according to present practices, while even some of the forested areas are unsuitable due to the infertility of their soils. [241] Most Inonda gardens are made on a land system covering only one-fifth of the total area. Probably on account of this generally lower soil fertility, the fallow period at Inonda is about ten years compared with only six at Sivepe and, using Crocombe and Hogbin's and Rimoldi's estimates of the garden requirements per head of

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[1] The contrast is even more marked if the uncorrected percentages are used - 32 per cent and 18.3 per cent respectively.

A, [See Category 461, p.171--Analyst]

Chapter 13

Rural productivity and capital formation

It has been demonstrated that, among the men at least, there is a significant amount of unutilised labour time available and that, although the Orokaiva are evidently committed to the cash economy, individual involvement is marginal. In particular, the commercial production of agricultural crops is poorly developed. Since this is the one form of enterprise which would appear the least disruptive of the subsistence routine and which exploits the available resources of land, labour and customary skills some explanation is required.

Although no direct evidence is available, Orokaiva diet, like that of many New Guinea societies, is probably adequate in calories but deficient in protein content. The ability of adults to undergo sustained periods of hard work, either in employment or in such subsistence tasks as sago-making, suggests that diet does not impose serious limitations on their productive capacity. It is worth noting, however, that there is a marked falling off in the level of activity in Sivepo during the dry season at a time when the diet, heavily reliant on sago, is least satisfactory. Moreover, this coincides with the coffee flush.

Both villages have access to more agricultural land than is required for subsistence. Crocombe and Hogbin (1963:10) estimate that, at Inonda, there are 580 acres of 'good gardening land available', of which only 127 acres are presently required. Rimoldi (1966:20-1) estimates the Sivepo sample's requirements to be 110 acres out of an available area of 138 acres, all of which is considered suitable for cultivation. In the former village only about 5 acres are under commercial crops (coffee, coconuts and cocoa) and 4.6 acres in the latter (coffee and rubber). Accessibility may be important in the failure to plant additional areas under cash crops. The preference for establishing such plantings close to the village at Sivepo, where the initial processing is carried out, has already been noted.[1] In the case of Inonda the degree of commercialisation is influenced

[1] See pp.110-11. A
A,[See Category 361, pp. 110-111--Analyst]

311 by the dispersal of suitable agricultural land over a wide area, creating a large 'journey to work' component in all productive tasks. After moving the village to its new site, an area about twenty minutes' walk away was selected for extensive new coffee gardens (partly on the grounds of proximity to an ample supply of water), but it was eventually rejected and seedlings were planted instead in harvested food gardens only five minutes away from the village.

433 For the indigenous producer transport is a major consideration. Clark and Haswell (1964:157) state that

> The methods of transport available to subsistence agricultural populations...are so costly that produce only has to be carried a limited distance before most of its value, from the point of view of net returns from the sale, has gone.

Porterage is arduous work requiring a good diet, and the minimum cost measured in terms of kg. grain equivalent/ton km., is high compared with other modes of transport.[1] The lower the value of a good per unit weight the more critical this factor becomes. In the case of coffee and copra, where initial processing results in a weight loss in excess of 80 per cent,[2] considerations of distance from the planting to the village (where the processing is carried out) are [36] particularly important. The Sivepe people market their parchment coffee at a point about one hour's walk from the village but they consider the distance excessive and hope to eliminate it by relocating the village on a road accessible to buyers' vehicles. If a journey of one hour's duration is considered the maximum they will carry their parchment coffee, it is reasonable to suggest that one-fifth of this time, or twelve minutes, is the maximum they are prepared to walk from village to garden to harvest the crop. Certainly it is evident that, given the means of transport available, the marginal utility of cash cropping decreases rapidly from village to garden and to point of marketing, with the rate of decrease considerably higher in the former direction.[3]

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[1] See Clark and Haswell 1964:160-3.

[2] Among the Chimbu of the New Guinea highlands it is estimated that 5.48 lbs of arabica cherry produces 1 lb of parchment (Brookfield: personal communication) - a weight loss of 81.8 per cent. It is assumed that the kernel comprises one-third of the total weight of a coconut and, of this, 50 per cent is water. In good quality copra the moisture content is reduced to 6 per cent - i.e. a weight loss of 81.6 per cent is effected in the production of copra (Department of Commerce and Agriculture 1953:1).

[3] While the ratio may remain constant the actual time involved will, of course, vary greatly from point to point, according to such considerations as the utility of money, expectations from cash cropping, etc. Thus the Aiga must walk for 3 hours or more to sell their cocoa (Rimoldi: personal communication).

10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

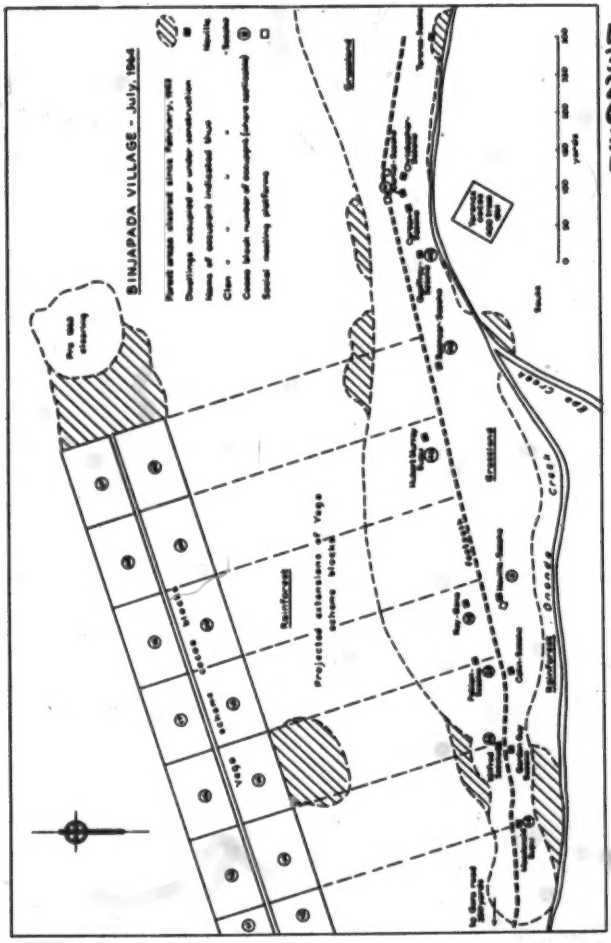

Figure 6

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Figure 7

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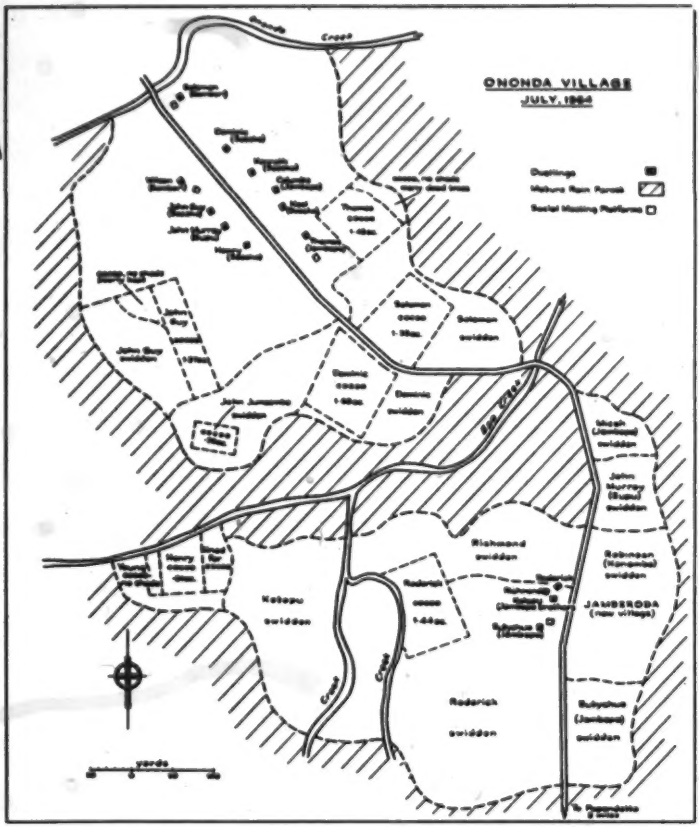
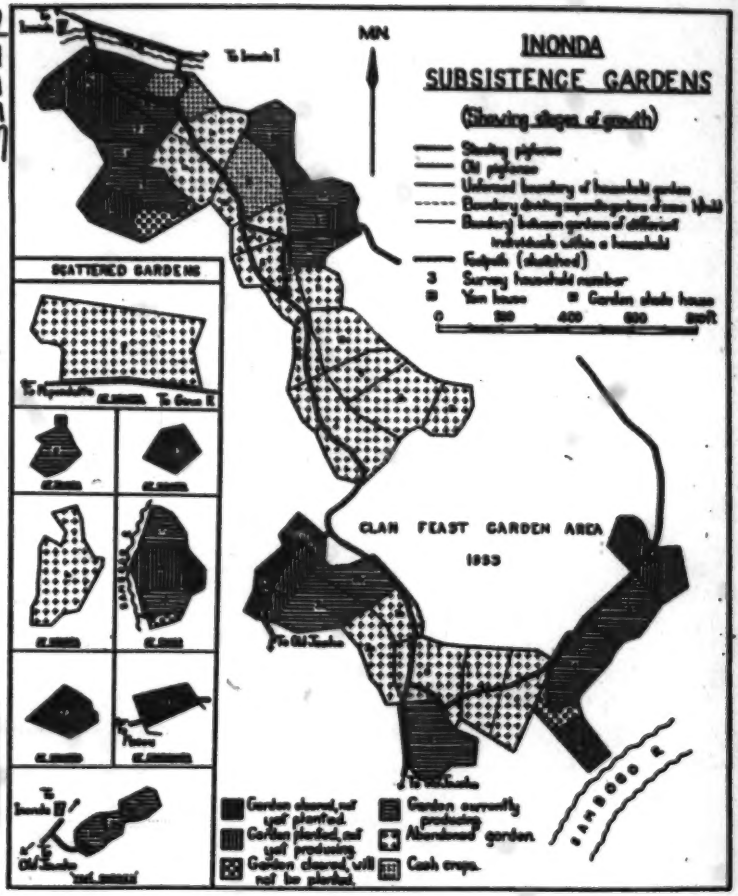


14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda



14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
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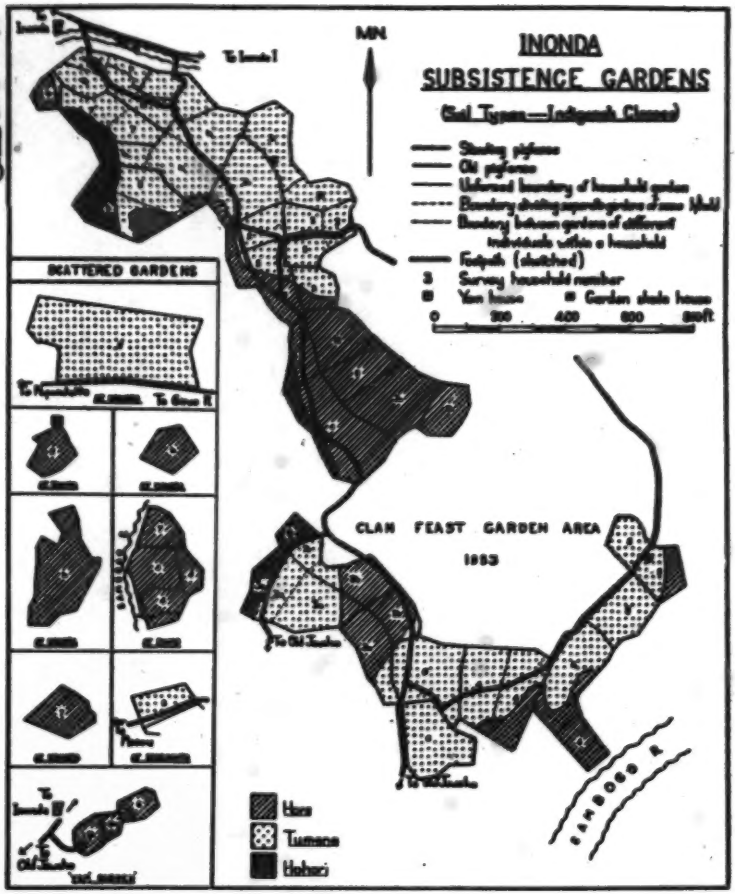

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual
[621] protection (Williams 1928:155). However, in 1928 Williams noted a growing tendency for small groups to form independent settlements.
[614] Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

654 Planting of cash crops on converted blocks has proceeded steadily.
657 The forty blockholders at Ombi-Tara planted an average of three
311 acres of high-yielding rubber each in the first fourteen months.
241 At Barisari fifty-six blockholders have planted an average of two acres of coconuts in fourteen months and this was expected to increase to four acres by the end of 1966 (Williams 1966:6). Blockholders at New Warisota have planted an average of three acres of cocoa after eighteen months. By contrast, fifty-seven farmers at the Yega scheme have averaged slightly less than one acre of cocoa planted in more than three years.

654 A rough attempt was made to estimate the value of the time,
657 materials and services expended on the conversion schemes in the Popondetta area.[1] This worked out at approximately $8 per acre[A] or $162 per block.[B] This suggests that the growth of conversion throughout Papua-New Guinea on a sufficient scale to have a significant economic and social impact will depend, inter alia, on the development, with experience, of less costly technical and administrative procedures.

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1 See Appendix A.[C]

A [Corrigendum: For $8 read $6--Analyst]
B [Corrigendum: For $162 read $116--Analyst]
C [See Category 423, pp. 38ff.--Analyst]

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer suggested that each man might plant some of the new high yielding
[425] rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:139) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It was decided that 800 acres of the total area claimed by the two
[311] clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

Allocation of blocks

659 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kuai clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Musu clan was given a block on Kuai land, reportedly because of a shortage of Musu land. The Kuai clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Musu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

Security of tenure

423 241 [182] [829] It is often suggested that the main benefit from tenure conversion is the provision of security of tenure for villagers who wish to plant cash crops. The Ombi-Tara people, however, did not consider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocoa and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds.

[578] Fourteen people did mention that conversion and the introduction of cement and *wooden corner pegs would help to prevent disputes;* but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 311 361 [829] Most Ombi-Tara people saw consolidation of their previously scattered holdings as the main benefit from tenure conversion.[2] Many people drew finger diagrams on the ground to explain how conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

had rights.[1] Conversion has caused a redistribution of land rights, with some people losing and others gaining land. Several men who claimed they had less land after conversion than before said that twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

There are indications that conversion at Ombi-Tara has facilitated co-operation between villagers who are planting cash crops. Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

Paradoxically, conversion to individual holding of land appears to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage co-operation is demonstrated by the establishment of a joint Ombi-Tara bank account to purchase equipment for the bush rubber processing unit, and by joint discussions on the nature of the new tenure system. Interclan co-operation is seen in the leader of the Kuei clan granting permission for the allocation of a block on Kuei land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

The Ombi-Tara people are pleased and flattered that many people visit and inspect the blocks. They heard that Ombi-Tara was mentioned on the radio and are happy that others ('people all over Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

Most Ombi-Tara people (82 per cent) said that they first heard of the possibility of converting land to holding under individual title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 423 182 Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land [361] close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

121 The need for credit at Ombi-Tara where rubber is being planted
452 may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 It is too soon to determine the effects tenure conversion will
423 have on cash cropping and productivity. However, even at this early
182 stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before
[311] conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy
[464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at
[177] Ombi-Tara provided villagers with experience in tapping and handling rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

433 were introduced. The use of these tools has
24 greatly lightened the work of the New Guinea
173 gardener and substantially reduced the time
412 needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 The introduction of new tools has not, how-
242 ever, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land
241 use, which can best be described as one of
242 shifting-field agriculture, the average land requirement is a quarter of an acre per head per
311 (P.1-B)

241 242 317 year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

241 433 177 [437] The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A]

602 Kinship groups are of major importance in the functioning of village society in New Guinea. Every individual is a member not only of a parish but also of groups of closer kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his relatives for heavy work such as the felling of big trees to make a swidden, dragging a canoe log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides social stability and in practice the pattern of land use is frequently decided by the senior members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

657 In its attempts to stimulate production of cash crops by indigenes, the Administration has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown before the coming of Europeans, has forced an even more drastic adaptation than have the

(P.3-A)

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

[P.7-B)

[NEXT CONTINUED ON PAGE 8-B]

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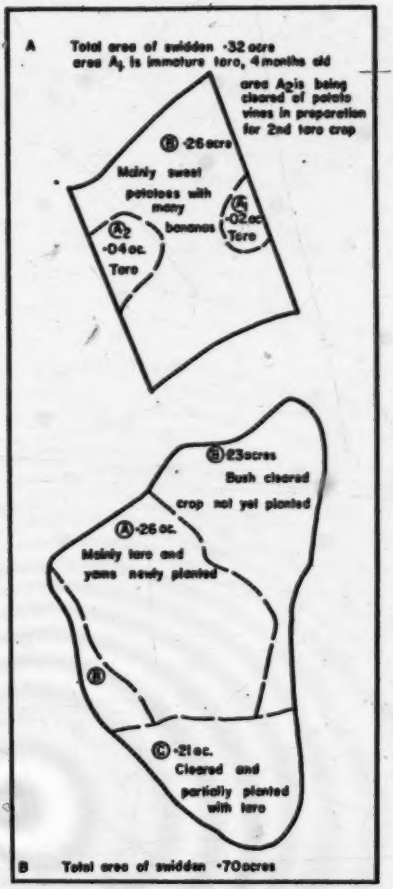

Fig. 5. Examples of Yega swiddens, illustrating the method of maintaining continuity of food supply

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242 obviously play an important part in the selection of a swidden site.

[P.9-A]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 remember the dead in such ways. In the meantime one may hear the drums beating
765 in some villages as the men spontaneously come together for recreation and practice.

The programme of reconstruction, then, is very much a matter of the allocation
731 of time between such ends. To regard it simply as a matter of building houses and
making gardens would be a mistake. But even within that simple framework the
311 rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

731 Papuans, and particularly the Orokaiva, work with great vim and energy when
461 they can work as a team, within sight and sound of each other. The melodious song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting.
[657 The custom of Government Day, the day a week which is set aside for village hygiene
797] and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

657 So far I have been writing mainly of the immediate problems of re-settlement. The Administration is however taking a much wider view and there is a great deal of

Map III

Source: Rimoldi 1966: 52

(End Map 2)

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

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134 the mume of Sivepo, but it is far shallower, less well drained and
[241] covered with kunai grass (predominantly imperata sp.). It is not used for gardens because of the difficulty of freeing the ground from grass roots. (ii) the Girua Association: coarse textured, recent riverine deposits lying beside the Sambogo and Girua Rivers. This soil, called tumeme is the favourite gardening land. (iii) the Warisota Association: recent, well drained medium textured clay loams, becoming fine textured with depth and found on the Hydrographers foothills. They are grey to grey brown, and are called hora or hohori. They are not favoured (though occasionally used) for gardens, as they tend to dry out during the dry season, which is much longer and dryer than at Sivepo. The other two soil types are too stony or sandy to be used for anything except foraging and hunting.

162 There is a striking difference in population density between
161 the two districts. Sivepo, with a population of 137, occupies and owns about 0.75 square miles of land, an average of about 180 persons per square mile. We may compare this with Inonda, with a population of 45 and about four square miles of land--an average of 11 persons per square mile. Sivepo is not at all untypical for the Saiho Census Division in which it is located; this is the division which includes the Mount Lamington foothills as well as some sparsely populated areas in the vicinity. Average population density in this division is 75, with local densities of 200 and over "not at all rare" (Rimoldi, 1966: 4). Inonda also has a population density characteristic of the census division in which it is located; the Buna Division is occupied by about eight persons per square mile (see Table 6).

161 Rimoldi's analysis shows that the Sivepo population density
311 is close to the upper limit the land can sustain with present technology and social organisation. The sample he chose for study (50 persons of the Jegase and Timumu clans) happened to have less land than the average, namely a total of 138 acres. He showed that of this area, 110 acres are required to maintain present standards of subsistence agriculture (1966: 20-21). This leaves hardly any margin for land unsuitable for cultivation and for unequal distribution of land as between families. It also makes little provision for a balance of forest land which must be preserved, as forest resources are essential for the maintaining of the Orokaiva economy. It is true that the other major Sivepo clan (Saho) has greater land resources, and that the Saho people allow the others to use forest trees from their land for building and other purposes. Nonetheless, land resources are almost as tight as they can be.

In contrast, Inonda has plenty of room. When Seva Village joined Inonda after the eruption, there was plenty of garden land for everybody. Crocombe and Hogbin claim that 580 acres may be classed as good garden land, whereas the present level of subsistence gardening can be maintained with 127 acres (1963: 10).

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens,
241 these seemed to be predominantly in the Northeastern part of the
311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepe is again in that area.

731 Inonda experienced three shifts since the eruption: first
361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses
659 close together and little space between the rows--both post-eruption settlements of Sivepe and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend
[364] to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have
[345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete
[595] which the Americans laid down during the war. Sivepe got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including
[591] Sivepe, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepe villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing
657 standards, village sanitation and roads. We find Wilfred Beaver,
364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

368 The eruption changes the centre of gravity of the district.
731 The pre-eruption settlements of Higaturu and Sangara contained all governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepe land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepe, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepe nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[295] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepe people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepe people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepe were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organised. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[293] were deprived of many of their choicest feathers at a time when
headdresses had to be refurbished for dancing or spears decorated.
[411] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
[579] Sivepe killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

There is a great shortage of both pigs and fowls for these
438 ceremonial occasions. Pigs are bought for high prices ($20 to
439 $30)--from neighboring villages and even, as Crocombe and Hogbin
say, from European planters. Fowls tend to be made available on
[435] big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield
241 economic products, those plants which are native to the district
● 311 and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepe sample and as shown by Crocombe and
Hogbin for Inonda (Table 7).[A] The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepe. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepe acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepe there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)[4]

245 The average Sivepe family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepe	Inonda
Coconut	Sago
Breadfruit (oga and eumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepe, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack
276 of betelnuts is felt very strongly, as the Inonda people are as
438 A fond of chewing it as other Orokaiva. Hence, it is usually obtained

[See Cat. 116, p. 213--Analyst]

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
[243] the Northern District has a long and somewhat unhappy history which will be referred to later; at the time of the eruption, just before the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent and the coagulum sold to a factory at Awala. There were six tappers
177 in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory
[474] was no longer buying indigenously grown rubber, but a rubber cooperative was set up early in 1967, with the encouragement of the Department of Agriculture, in a village about one mile from Sivepa. The Department of Agriculture was also encouraging the people to plant superior Malayan rubber trees and two men had planted 250 and 72 trees respectively. Rimoldi reports that "members of the clans now represented in Sivepa and Binduta" owned four plots ranging from less than half an acre to about three acres in area.

Since that time, however, a new plot has been established, four and one-half acres in size, on which theoretically seven men were to establish rubber stands. The Malayan trees were planted here, as well as self-sown trees from the other plots which were dug up and replanted. These plantings occurred shortly after Rimoldi left. If the new cooperative venture succeeds, it is likely that the new plot--most of which still remains unplanted--will be exploited, but people were clearly waiting to see whether sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly
311 after it was set up in Popondetta and greatly strengthened by the setting up of a coffee cooperative, first under the Higaturu Local Government Council and later independently. First plantings in Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that in 1964, there were 1,100 coffee trees in Sivepa, owned by five growers. Crocombe and Hogbin reported 801 trees in Inonda in 1962, owned by three households. Since that time, Inonda has not added to its plantings, but Sivepa, along with the whole of the Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from five to 14--every able-bodied man in the vigor of life has his coffee garden from which he derives an annual income of between $50 and $100. This increase is the result of vigorous encouragement of plantings by the Agriculture Department, a change of ideology under the impact of the Local Government Councils and a great improvement in the marketing arrangements. In 1966, Sivepa coffee was collected and promptly paid for in Garoubi village, about 15 minutes' walk from Sivepa. I did not take another coffee census

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

22: Schwimmer E-4,5 (1966-1967) 1969 QU23 Orokaiva QU23 Mount Lamington

TABLE 7

FOOD PLANTS PER HOUSEHOLD:
INONDA AND SIVEPE COMPARED

Sources: Crocombe and Hogbin, 1963: 8; Rimoldi, 1966: 17

Crop	Inonda		Sivepe	
	Average	Range	Average	Range
Taro (Colocasia sp.)	1.3 acs.	2.6 - 0.4 acs.	0.97 acs.	0.39 - 2.30 acs.
Sweet Potato	0.2 acs.	0.4 - 0 acs.	0.07 acs.	0 - 0.20 acs.
Corn	72 plants	140 - 0 plants	223 plants	0 - 442 plants
Bananas	81 trees	145 - 12 trees	71 trees	35 - 126 trees
Pitpit (ins)	56 clumps	181 - 4 clumps	88 clumps	0 - 400 clumps
Sugar	71 clumps	167 - 34 clumps	34 stools	11-54 stools
Yams	24 vines	61 - 0 vines	65 vines	0 - 136 vines
Manioc	10 plants	27 - 4 plants	a few	
Taro (Xantosoma sp.)	5 plants	25 - 0 plants	28 plants	0 - 91 plants
Native Cabbage	---	---	22 plants	0 - 100 plants
Pawpaw	---	---	17 trees	5 - 32 trees
Beans	a few		17 plants	0 - 110 plants
Cucurbits	2 vines	10 - 0 vines	13 vines	9 - 28 vines
Saallots	a few		a few	
Ginger	---	---	a few	
Tobacco	---	---	18 plants	0 - 59 plants
Pineapples	1 plant	7 - 0 plants	no data	
Tomatoes	a few	---	no data	

241
311

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading. Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamington slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

511 Only one man owns a mosquito net and there is only one transistor
[207] radio in the village. Some of the older people still wear tapa
291 cloths but new ones are seldom made now. The more common form of
178 dress is a pair of shorts, a skirt or a laplap, the skirts being
[777] mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75.
411 These are the only items in the village representing large capital
[435] outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style,
342 but all are built wholly of local materials. They contain no
178 raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

•312 A creek running beside the village provides the water for bath-
487 ing, cooking, laundering, washing dishes and pulping coffee. Paths
514 are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 Inonda lands run from the low plains (200 feet above sea level),
134 beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with
[311] the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 25]

only permissive rights at Inonda or any nearby place. He has been living at Inonda for some years on a temporary basis and is dependent for gardening land on his relatives by marriage at Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

- Informants claimed that a man in need has the right to make gardens on the land of the mother's brother though this is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

Hunting and foraging rights: Any primary member of the Andiriha and Jego'undi sub-clans in Inonda can hunt or forage on any portion of the Inonda land which is covered with virgin bush, kunai grass, or second growth. Likewise any villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

[313]

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

CHAPTER 3 - OTHER PROPERTY

Housing

342 319 423 All materials for building the Inonda village were acquired from land and trees in which the people hold rights of one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 422 Very few agricultural implements are used. Each adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 495 The axes and knives were bought from local trade stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

434 [513] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

43C The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepe as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 454, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have
[555] taken over some of the functions of traditional valuables and in
some situations one is exchanged for the other. In the past it
[301] was recognized that skill and initiative in hunting and trading
[237] were necessary to acquire di hambo but today, with safer communi-
[321] cations and better hunting equipment, they are more easily obtained.
People are willing to buy some of the more valuable items or some
[439] cheaper items of European manufacture which can be adapted to
serve as a novel decoration.

Although they constituted the greater part of the goods changing
[428] hands on traditional ceremonial occasions, di hambo are evidently
not now circulating rapidly. A little less than half of these
valuables held by members of the sample had been inherited and
nearly a quarter had been acquired by the owner by hunting or
collecting.

A complete adjustment between the roles of money and of non-
monetary valuables has not yet been made. They circulate in the
same exchanges and both are considered essential; it may now be
[583] accepted practice that each should be contributed by or distributed
amongst different categories of kin on these occasions.[1] But the
opinion was widely expressed that as people are increasingly
demanding cash as a large part of bride price payments, the
intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely inter-
changeable, we collected details of the prices paid for any items
of di hambo which had been purchased by the sample,[2] and by using
these in conjunction with the unitary scale of value on which
informants could readily place all items, we assessed the possible
cash equivalent of non-monetary valuables acquired by the 12 house-
holds from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[46] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[621] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[289] The traditional body covering for both men
[171] and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-making. They used to trade their *tapa* for pots
439 from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P11-A]

[TEXT CONTINUED ON PAGE 12-A]

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous [124] villages. I collected the kindreds, up to two degrees removed, of 51 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9 shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; [794] meeting them less than once a year would not be quite right. Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

Section 4: Other Contacts with the Waseta "Tribe"

. . . . While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matriline, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Isivita villages and with Togahou. The links with Soroputa and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Awala (three miles from Sivepe) also has a special explanation beyond [438] common clanship: Sivepe people were dependant upon Awala clay [323] for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

A [See Cat. 116, p. 214--Analyst]

177 Housing and village improvement: The changes in this aspect of culture
are capable of fairly precise description, which has been provided in
Table 10.A This table applies to Sivepe only; I shall refer to some
minor differences between Sivepe and Inonda at the end of this section.
335 The changes may be analysed into several main types. First, there is
412 the extent to which European materials and tools are used. Here, we note
177 that nails were a building material as early as 1951 (and therefore
also hammers), but a significant change has been the extent of their
use. The introduction of nails was partly a time-saving device, as
framing can be efficiently lashed together with the bark fibres
traditionally used. On the other hand, the "timber" walls might not
be easy to lash together and nails are probably necessary here. On
the other hand, the blackpalm or betelnut which is used for the floors
does not take nails at all well and the lashing is a superior technique,
177 used in almost all the houses. Secondly, there have been changes in
342 house design, and the use of materials. The increase in house size,
which was the most striking of the innovations, was general throughout
the village, according to a standard set by the leader and adhered to
by everybody. The change from betelnut to blackpalm flooring is
towards a superior, toughter material, harder to work and comparatively
rare in the Sasembata district. The change from sago to "timber"
walls was purely a matter of aesthetic fashion. I was told by Mr.
Sebire that it started in the early 1950's in the Kokoda district; in
Sasembata district it does not seem to have started until around 1965.
The new houses at the mission station had "timber" walls; so had the
new houses in several other nearby villages. Sivepe, being built on
a new site after the fashion started was wholly built in "timber"
(except for a few houses shifted from the old site and standing on the
new one and gradually replaced). The "timber" looks like weatherboard,
[335] which has been used on Australian houses in the Kokoda district. It
is cut from logs sawed to a length of six feet, which are then split
into shingles with a bushknife, a procedure which takes much time and
skill. The six feet long shingles are generally 3/8 inch thick and
five inches wide. The intention is to overlap them, providing better
protection against wind and rain than the sago walls have. The work of
cutting the shingles is so arduous, however, that the overlap is usually
quite small when the houses are built; as the logs are split green, the
timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European
[342] authorities. (The timber walls, according to administration officers,
were a purely Orokaiva idea.) For reasons of hygiene, the administration
wanted the houses to have windows, which traditionally they did not
have. The new houses have large windows, but they are all blocked up
with boards (to keep the wind and rain out) so that they are not functional,
[36 except in warding off criticism from Australian officials. The village
improvement measures: elimination of pigs, lavatories, rubbish holes,
[351] pens for chickens; are all based on European advocacy. The neat lines
of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.
[824] Some Orokaiva have been employed by Europeans as carpenters;
these men have certain skills upon which a community draws when large
community buildings (for instance, the hospital at Sasembata mission
177 station) need to be constructed. The trained carpenter leads such
335 enterprises in the role of expert. There was one such man in Sasembata
village; he, like most others of his type, learned his skill in
European employment and not in one of the small adult education
ventures which the administration has sponsored from time to time (the
adult education classes at Ilimo camp were probably the first of this
type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but
rather with an increase of understanding of the world outside. While
before the war, only a small minority had school education, the
Anglican Mission spread its operations to several new stations,
including Sasembata, after the war. After the eruption, the scope of
education was again greatly extended and it could be said that the
eruption marked the beginning of universal school education in the
majority of Orokaiva villages. The Sasembata station began to draw
virtually the entire child population of the surrounding villages,
and most students now follow a five or six year course. While this
development had been planned ever since the war, it may be significant
that regular school attendance of all the villages in the district
was experienced for the first time at Ilimo, where a school was
conducted for the whole evacuee child population, and adult classes
as well. It is the objective of present school programmes, as far
as I can see, to make the population literate and the increase of
[212] literacy is a major aspect of acculturation over the period. Literacy
has certainly progressed to a point where letters written in Orokaiva
to any family in Sivepe can be read and understood with the help of
at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation.
In the Orokaiva language, there are no numerals higher than 2; hence,
it is the invariable practise to use English numerals when speaking
[192] the Orokaiva language. The numerals are, in fact, among the main
English linguistic features that have been borrowed. They are used
with remarkable frequency; the number of coffee trees, the value in
pounds of trade goods included in a bride price, the calculation of
money prices, even the number of brothers or men who together played
some role in a mythological tale (a distinctly contemporary touch,
this)--all these phenomena show that "numbers" have become an integral
part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5¾ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*anara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 25]

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966
(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pamba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

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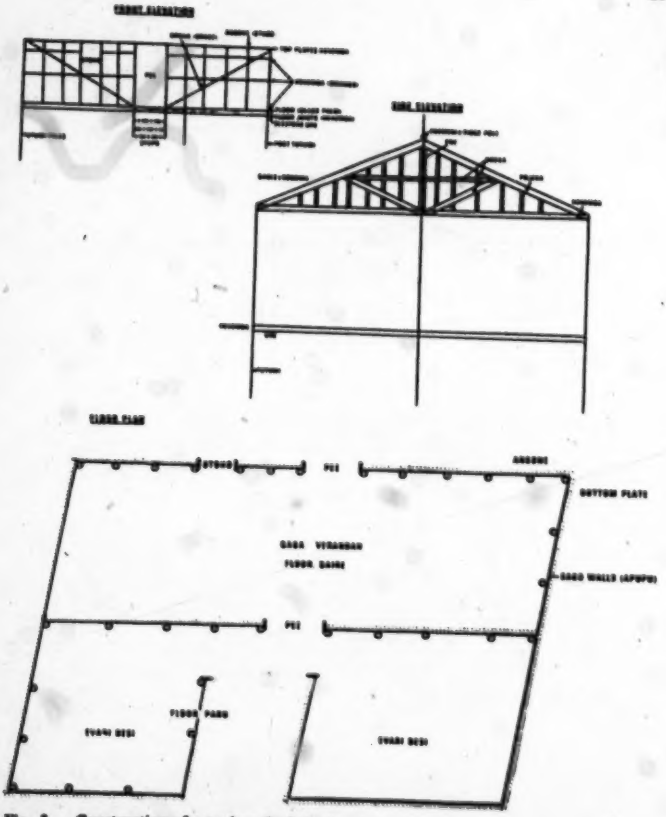

Fig. 3. Construction of a modern Orokaiva house.

(*hawau*) in the heat of the day, and sometimes sleep there at night. Yams are stored under the roof. 343

Plastic Arts. As Mauss (1967: 96) has suggested, the best starting point in the description of plastic arts is the decoration of the body. Even though the elaborate hair dressings described by Williams are no longer seen for everyday wear, every opportunity is taken to decorate the hair in some way, especially with a few feathers. It is at the ceremonial dances that the full range of body decoration is seen: face painting, feather head-dresses, ornaments. The latter are worn on the forehead, held in the teeth, suspended from ears and nose, as necklets and as armlets. 302 301

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together to their gardens, but each household then cultivates its garden [462] alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A, [See Category 461, p. 28--Analyst]

342 [476] required to build the short pig fence protecting the average garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy'' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The [164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey - 461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening [797] was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted 461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during 461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

166 Individual mobility is still high, as we have already noted.
[342] Mobility is facilitated by the fact that material for housing - wange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

36 The patrol of 1948 which found this area 'literally a mass of
[62] small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

36 When people began to leave the evacuation camp there was a
178 spontaneous trend, which was encouraged by officials, towards
62 building larger villages or, alternatively, clusters of 'hamlets'
[177] within sight of each other (Belshaw 1951:5 ff.).

Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

62 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCCS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

A, [See Category 163, p. 307--Analyst] B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

511 [207] [291] [178] [177] Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

411 [435] Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

342 178 None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 487 514 A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 134 [31] Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

Like Sivepe, both sites of Inonda were laid out as line villages. Here the tendency for grouping of kin is more marked but still not rigid (see Map 6). The houses, with a mean size of 282 sq ft, are built largely of local materials, but incorporate some exotic items including nails, and, in certain cases, corrugated iron roofing from nearby wartime dumps. In addition to the residences, there is a rest-house, a copra-drier, a small trade store and a chapel. Brief weekly services are held by a villager who was once a mission teacher and who also owns the store.

In January 1964, the resident population of the village was 35, with 16 adults, a drop of seven since the time of Crocombe and Hogbin's survey (1963:58). The nine households had an average of 3.9 individuals or 1.8 labour units. No births or deaths occurred during the survey but there were three arrivals and seven departures giving a total of 31 people, including 16 adults, in January 1965. In addition, several people from other villages stayed temporarily with kinsmen in Inonda. At first, there were two local clan branches in Inonda, the Andirihaha and the Jego'undi, the latter being represented by a single family.[1] When the village moved in 1964 the Jego'undi man, having virtually no rights to land near the new site, decided to move instead to the nearby village of Mosou, which is built on his land. He, his wife and four daughters were from this point (July 1964) excluded from the daily interviews, which explains the most prominent change, namely the loss of female children, in the age-sex structure diagram (Fig.4:2).[2] In contrast with Fig. 4:1 for Sivepe, Fig.4:2 shows neither males nor females in the 15 to 19 years age group; the largest concentration of adult males is in the 20 to 24 years group, where Sivepe has none. The proportion of long-term absentee adult males was 16.6 per cent in January 1964 (i.e. two out of twelve) and 25 per cent in 1965, the rise being due to the departure of the Jego'undi man. One absentee is normally resident in Port Moresby and seems unlikely to return except on retirement; the other, his brother, lives less than three miles from Inonda at Ijika near Hohota, which is his widowed mother's village, and he constantly asserts his intention to return to Inonda.[2]

The major agnatic links of the Andirihaha people are with Hohota, but extend to Kakandetta and Hanakiro, ten miles away, while

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[1] A third local clan branch, the Horemba'undi, is represented in Inonda by a single household, which is resident through affinal ties and it has no right to Inonda lands, although it is allowed to make food gardens there.

[2] i.e. two of the three 'absentees' continue to reside in subsistence villages, unlike the Sivepe absentees who are all in, or seeking, full-time wage employment elsewhere.

[TEXT CONTINUED ON PAGE 55]

A,[See Category 162, p. 55--Analyst] B,[See Category 162, p. 39--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 3. Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.

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Plate 4. Sivepe - women are responsible for keeping the central area free from weeds and refuse, as part of 'Council work'.

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about [342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431

> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

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[462]
[286]
[285]
[824]
[462]

(ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

[342]

The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

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8: Waddell & Krinks E-4,8 (1964-1965) 1968 OJ23 Orokaiva OJ23

partially counteracts the effect of the reduced travelling time. However, all of the most distant gardens were fully harvested by the time the village move was completed.

Other subsistence activities also show a significantly lower proportion of time spent in travelling from the new site compared with the old: this is because almost all construction, including the copra-drier as well as houses, took place at the new village. Some people reduced their travelling times at an early stage by erecting temporary shelters on the new site to live in while building their homes. By the time of period III, the other subsistence activities were restricted to those pursued in the village, such as making mats or string bags. The reduced time spent walking from the new site to work on cash crops results from a concentration on copra production within or adjacent to the new village at the expense of work in the more distant coffee gardens. The established coffee gardens are about twenty minutes' walk from the old site but forty minutes from the new village and the distance involved resulted in a decision to establish new coffee gardens nearer the new village. As described,[1] the first choice was land about twenty-five minutes' walk away, but eventually all but two men decided to utilise the food gardens only five minutes from the village. The other two planted coffee near the Sambogo river where there is plentiful water for pulping and washing the cherries.

The apparent reduction in travelling times for household chores is illusory. The observers were able to cover activities such as cooking far more completely at the new site; the distance to the nearest water supply was not diminished by the move. The distance to the aid post where the infant welfare clinic is held was, however, considerably reduced.

Three categories of activity show an increase in time spent travelling. This reflects more frequent journeys after the move to places further afield, such as Popondetta, Saiho and Kendata, but this increased frequency was not a function of the move itself. During period I, when most people were still resident in the old village, most of the social occasions took place there or in nearby villages whereas, later in the year, feasts were attended in more distant places.

The performance of individual tasks

On a number of occasions, detailed observations were made of the time involved in carrying out various tasks and the results are shown in Table 7:14. Each activity has been divided into different phases: travelling, resting and eating, performance of the main task,

[1] See p.59.

[TEXT CONTINUED ON PAGE 157]

226 476 branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

342 461 476 Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the householder alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

461 178 [245] It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

166 Isemba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Isemba was absent for 85 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

[461] [464] Isemba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

8: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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[460]

The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two [222] main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a [462] single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods I and II and the move was completed by the beginning of period III. [342] One-third of the assistance in construction was in making roof- [824] sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

[1] See pp.235-44.

CHAPTER 3 - OTHER PROPERTY

Housing

342 319 423 All materials for building the Inonda village were acquired from land and trees in which the people hold rights of one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 422 Very few agricultural implements are used. Each adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 435 The axes and knives were bought from local trade stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

The inheritance of property

342 768 Traditional housing has a life of only about four years. It is simply constructed and does not call for any great expenditure of either effort or materials. If the household head dies, his wife and family may continue to occupy the house, though if there are adult sons they will usually dismantle their late father's house and rebuild nearby. If the wife remarries her new husband must provide her with housing.

428 Replies to questions about the inheritance of tools and equipment were unanimous. Those who had one son (real or adopted) said these things would descend to him alone. Those with more than one son said they would go to the first-born who would divide them among all the sons, though he should make some provision for his sisters if they were living at home. Those with no children or with daughters only said that their chattels would go to the sons of their eldest brother. The one exception was a man with four daughters and no sons. Neither did his brothers have sons, although his late sister has surviving sons in a village about ten miles away. He says that if he does not have a son before he dies, he will leave his property to his eldest daughter to distribute among herself and her sisters.

The proposed inheritance of cash savings and traditional valuables followed the same pattern as that of tools and equipment, though informants state that the first-born son need not necessarily actually divide the estate, but will normally merely take care of it as trustee for his siblings. He is then obliged to meet their obligations in respect of bride-price and other exchanges from the common pool. This practice has in fact been followed in all instances checked with the villagers, though they do say that it is not contrary to custom to share the estate among the beneficiaries.

While it is said that a man's dogs are usually inherited by his eldest son, pigs and fowls appear generally to be consumed during the feasting associated with the death. One exception noted during our stay was a large pig which had been "earmarked" as part of a bride-price exchange. When the owner died this pig was in fact reserved for the bride-price, though his other pigs were killed for the funeral feast.

	Men	Women	Average
Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Humu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

372 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the house). The floor is of split lengths of limbom palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets and bags hang from the ceiling and in every house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

(824) (824) (417) 252 354 352 353 415

353 [415] *tapa* cloths, also worn on ceremonial occasions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A [392] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet [227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 [461] [614] [627] [584] A *gaga* is simply a talking platform where men sit for a chat, a chew (of betelnut) or a smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

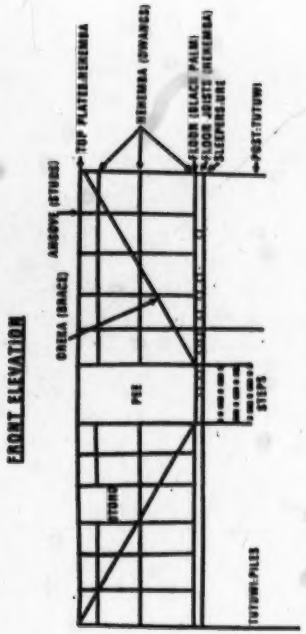
291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women. [287] The traditional body covering for both men and women was beaten out bark-cloth of the [171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to 323 church on Sundays. The Yega and their neigh- [289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and [178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

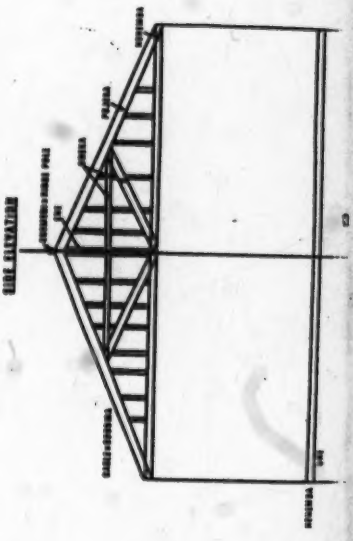
[P-11-A] [TEXT CONTINUED ON PAGE 12-4]

342

XII
House Plan

FRONT ELEVATION

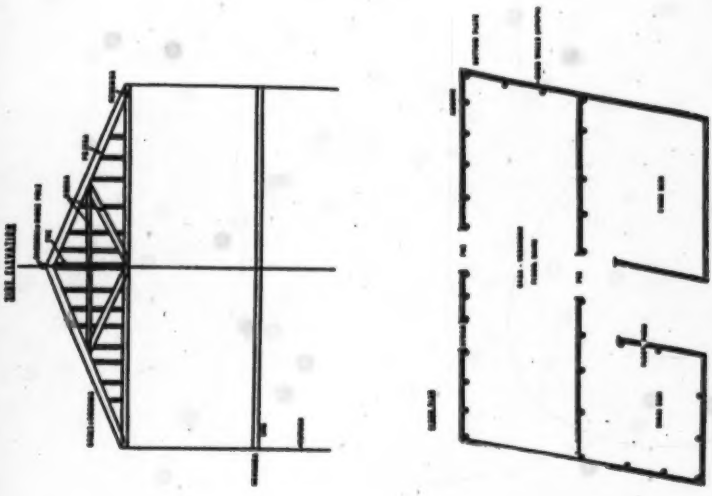




[End Map 11(A)]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

342



[End Map 11(B)]

657 Kumusi Division in which both Sivepa and Inonda are situated. It
364 would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922:
[462] 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

364 Beaver, in the report already cited, sets out his concept
361 of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

342 The Pre-contact house was invariably built with a pig
231 enclosure so that man and pig spent the night together. The
657 Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under
231 the houses, or elsewhere, as they wished. Since the Local
657 Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepe was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

657 Belshaw makes the following remarks about village development:
361 "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

177 Housing and village improvement: The changes in this aspect of culture are capable of fairly precise description, which has been provided in Table 10.A This table applies to Sivepe only; I shall refer to some minor differences between Sivepe and Inonda at the end of this section. 335 The changes may be analysed into several main types. First, there is 412 the extent to which European materials and tools are used. Here, we note 177 that nails were a building material as early as 1951 (and therefore also hammers), but a significant change has been the extent of their use. The introduction of nails was partly a time-saving device, as framing can be efficiently lashed together with the bark fibres traditionally used. On the other hand, the "timber" walls might not be easy to lash together and nails are probably necessary here. On the other hand, the blackpalm or betelnut which is used for the floors does not take nails at all well and the lashing is a superior technique, 177 used in almost all the houses. Secondly, there have been changes in 342 house design, and the use of materials. The increase in house size, which was the most striking of the innovations, was general throughout the village, according to a standard set by the leader and adhered to by everybody. The change from betelnut to blackpalm flooring is towards a superior, toughter material, harder to work and comparatively rare in the Sasembata district. The change from sago to "timber" walls was purely a matter of aesthetic fashion. I was told by Mr. Sebire that it started in the early 1950's in the Kokoda district; in Sasembata district it does not seem to have started until around 1965. The new houses at the mission station had "timber" walls; so had the new houses in several other nearby villages. Sivepe, being built on a new site after the fashion started was wholly built in "timber" (except for a few houses shifted from the old site and standing on the new one and gradually replaced). The "timber" looks like weatherboard, [335] which has been used on Australian houses in the Kokoda district. It is cut from logs sawed to a length of six feet, which are then split into shingles with a bushknife, a procedure which takes much time and skill. The six feet long shingles are generally 3/8 inch thick and five inches wide. The intention is to overlap them, providing better protection against wind and rain than the sago walls have. The work of cutting the shingles is so arduous, however, that the overlap is usually quite small when the houses are built; as the logs are split green, the timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European [342] authorities. (The timber walls, according to administration officers, were a purely Orokaiva idea.) For reasons of hygiene, the administration wanted the houses to have windows, which traditionally they did not have. The new houses have large windows, but they are all blocked up with boards (to keep the wind and rain out) so that they are not functional, [364] except in warding off criticism from Australian officials. The village improvement measures: elimination of pigs, lavatories, rubbish holes, [351] pens for chickens; are all based on European advocacy. The neat lines of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

part of village layouts, are a blend of Papuan tradition (the Orokaiva have always been very fond of flowers and planted ornamental shrubs) and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

The changes are to some extent due to the experience of Ilimo camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

Tools and skills: Traditional agriculture has undergone considerable change, as elsewhere in New Guinea, by the introduction of steel axes, bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower at Sivepa has, as far as I know, only one coffee sack. The basic skills needed to bring rubber and coffee to market have been mastered, but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] With regard to interpersonal relations, the evacuation set up
[571] a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bende, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivepa, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[197] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, with a slight
628 decline in population (to 45 in 1962 and 41 in 1967) and a decline in
the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 conceived as part of it. (People spoke of the residents as living "in Sivep," not "in Orinasusu.")

In the new village, the number of houses built outside the regular rectangular plan was even larger. Of the 25 houses, only 14 were strictly where they were supposed to be; a further three dwelling units might be considered "in line" if the term were used very broadly, but eight formed a line of their own, roughly parallel to the two planned rows, with doors facing towards the araha. This line was on more elevated ground than the rest of the village, and about [182] two chains behind the nearest planned row. The decision of all these householders to build outside the regular rows is in part explainable by features of the kinship structure, to which I shall refer later. We should not ignore, however, certain historically and psychologically determined attitudes which resisted the regular village pattern. In this connection it is significant that in only five out of 11 cases the irregularly placed houses were built on land to which the occupants had some special claim. Houses that were out of line were at first all of much lower standard in size and construction.

Because of the very close scrutiny the inhabitants of a village give to one another, as well as the numerous regulations that are now being enforced in villages, Orokaiva feel the threat of regimentation implicit in the large resettlement villages. Even the small distance of two chains provides a valuable measure of detachment for people many of whom used to live in much smaller villages and managed to evade most of the modern regulations. One man ceded to pressure and built a house in the "line" in which he placed his daughters-in-law and their offspring but he stayed in the old house on the hill. There was much criticism too of the unwillingness of one man on the hill and the owner of the detached house No. 8 to clear the tall weeds between their houses and the rest of the village. I feel sure they let these weeds grow with the specific purpose of emphasising the distance. It was generally agreed (and confirmed by Mr. Waddell's data) that these two men were among the most diligent gardeners in the village, so that "laziness" provides no explanation.

● [342] A further dimension of freedom is always available to Orokaiva by the institution of the "garden house." A garden house is a rough shelter where people can sleep in the heat of the day while they are at their gardens. Some garden houses, however, are good, sound structures suitable for semi-permanent residence. Sometimes people stay at them overnight, sometimes for several nights in succession. This is done at times when there is a great deal of garden work urgently needed; by staying at their garden houses people save time and avoid distractions. It is also done when there has been a quarrel and people like to stay out of sight for awhile; finally, it may be done simply for reasons of privacy. Some men stay at garden houses far more frequently than others. One Sivepe man is staying there constantly and has no village house at all, nor did he have one in Old Sivepe. Generally, stays of more than one week at one time are most unusual. Most people never stay away for longer than one night.

22: Schwimmer E-4.5 (1966-1967) 1969 QU23 Orokaiva QU23 Mount Lamington

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahambo (pre-war)	2. Pambe (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5¾ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*anura*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 25]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/4

CHANGES IN HOUSE DESIGN, HOUSE CONSTRUCTION AND DOMESTIC AMENITIES IN SIVEPE, 1936–1966
(Comparison between standards reportedly applied on four successive village sites)

Elements	1. *Pusahambo (pre-war)*	2. *Pamba (between war and eruption)*	3. *Old Sivepe (after eruption, until 1965)*	4. *New Sivepe (1966)*
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnuts, no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	'Timber'
Nails: Framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Cocunut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	'Very Small'	'Bigger'	'Much bigger again' (200 sq. ft.)	'Big' (375 sq. ft.)

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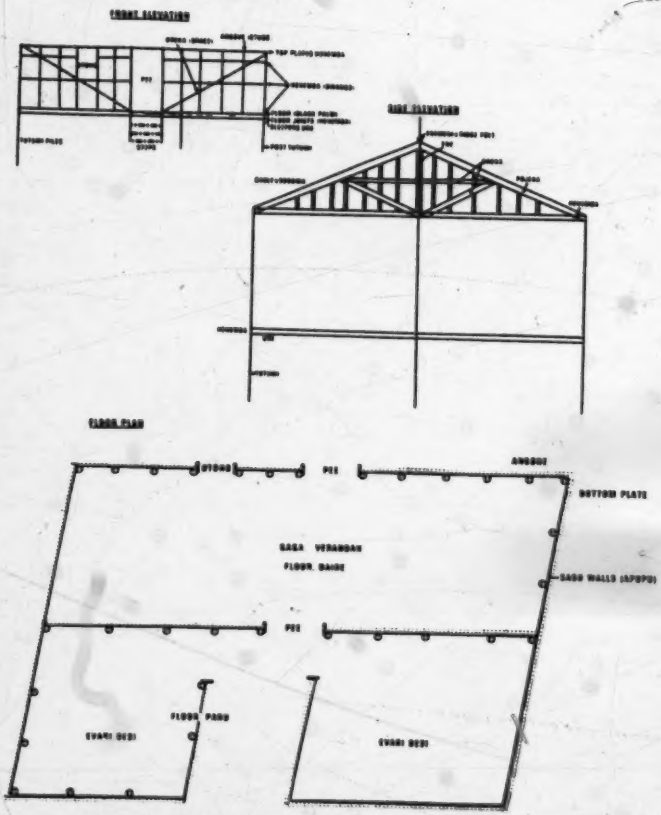

Fig. 3. Construction of a modern Orokaiva house.

(*haraa*) in the heat of the day, and sometimes sleep there at night. Yams are stored under the roof. 343

Plastic Arts. As Mauss (1967: 96) has suggested, the best starting point in the description of plastic arts is the decoration of the body. Even though the elaborate hair dressings described by Williams are no longer seen for everyday wear, every opportunity is taken to decorate the hair in some way, especially with a few feathers. It is at the ceremonial dances that the full range of body decoration is seen: face painting, feather head-dresses, ornaments. The latter are worn on the forehead, held in the teeth, suspended from ears and nose, as necklets and as armlets. 302 301

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [177]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is here that quarrels are settled, marriages arran-
[584] ged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the
[191] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[198] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.U-A] [TEXT CONTINUED ON PAGE 12-A]

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahambo (pre-war)	2. Pambs (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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351
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514
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22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

Section 3: Social Services: Health Assistance

657 Social services were provided partly by the government, partly by the council and partly by the mission. The services provided by the different organisations were so tightly interlinked and so systematically complemented one another that it will be convenient to present, in the present chapter, the overall system that was operating. This system was a product of government planning, while council and mission made specific contributions in their special areas of competence. In the next chapter, I shall look at these services again, from the viewpoint of general mission objectives.

657 In this interlocking of services, it was the government which 743 met the bulk of the expenditure, as Table 13 clearly shows.[A] On the other hand, over Papua as a whole 60% of the hospitals were conducted by the missions and over one quarter of the aid posts. In the year 1964-1965, in the Northern District, the three administration hospitals had 3,671 admissions and 13,176 out-patients while the corresponding number for mission institutions was 3,286 admissions, 255,460 out-patients. It is therefore clear that the mission contribution to health services in the Territory is, in terms of patients treated, far greater than its budgetary contribution (2% of total expenditure on public health) would suggest. This disproportion is only slightly lessened if we consider the value of grants-in-aid and drugs supplied by the government to mission hospitals. Clearly, it costs a great deal less to treat a patient in a mission than in a government hospital.

743 The Saiho Hospital, which served all Orokaiva territory, was a sprawling settlement of a great many buildings, almost all made of native materials. Only one building, as far as I remember, was in [344] Australian style, with weatherboard walls; this contained the doctor's office, some other administrative offices, and was used for the few non-Papuan out-patients who occasionally called. The wards were all built of bush materials. Although the statistics show 2,500 admissions and 5,000 out-patients per year, there was only one physician at the hospital who at the same time functioned as superintendent and had a heavy administrative burden. He had a small expatriate administrative staff, and a few expatriate nurses. In the beginning of 1967, a second physician, a Papuan woman, joined the staff. The superintendent was also in charge of the training of aid post orderlies. Increasingly, Papuan nurses, trained in a three-year course at Port Moresby, are being used. A substantial number of hospital orderlies are employed.

758 It is not the policy of the hospital to offer ambulance services, 743 so that the village people are expected to make stretchers out of bush materials and carry in their sick. In practise, hospital and administration vehicles will frequently carry sick people to hospital and I have never actually seen the stretchers made. People would certainly know how to do it. Upon arrival, the sick person is interviewed by a hospital orderly; usually he is accompanied by a number of

A [See Cat. 116, p. 218--Analyst]

756 743 government scale in 1965 was $1000-$1800, per annum. The orderlies assisting the AMO received $1 per month. This did not necessarily mean that the AMO lacked the qualifications to get a government job; he could easily have obtained one.

Every day some dozens of people would present themselves with minor and sometimes major ailments. They would be bandaged, given a pill or some other simple treatment. Very sick cases were referred to the hospital; most days, a car would come to the mission station and the AMO could get transport for his patients. The beds were occupied for the more serious cases who could not well go home but who did not need the more specialised treatment of Saiho. The nursing aid never stayed in the hospital overnight but one or two relatives of the patient usually did; if the patient's condition deteriorated, the AMO could always be called over as he lived on the mission station. (See Map XI.)A

743 Inonda was served by one of the medical aid posts which are being built all over the district. This was at Hohota, next to the mission school. Such aid posts are built of milled timber and paid [349] for by the Ngaturu Council; the government may subsidize these posts. The salary of the aid post orderlies, who work on a part time basis, is paid by the Council also, but in 1966, the government paid a 50% subsidy on these. Most of the large resettlement villages (Hohorita, Knipa, Kiorota, etc.) had them, or were getting them, three posts being added in the year 1966. The smaller villages had to share aid posts; thus, there were no plans to build one at Inonda, and people were expected to walk the three miles to Hohota for treatment.

758 743 The standard of aid was not always as high at these posts as it was in Sasembata. Hohorita had much trouble replacing an orderly who had left. Inonda found it difficult to get service; on one occasion when we went to the aid post, we heard, upon arrival that the orderly had just gone to town for the day. On another occasion, he was in his house; he had been hunting, was tired and would not see anybody. This would have been a rare occurrence indeed at Sasembata. The orderlies regarded themselves as part-time employees who chose their own working hours. This would have been reasonable (for average cases) were it not for the distance between Inonda and Hohota. How often will a man walk six miles to collect a single malaria pill? A more serious problem is that the orderlies are not nearly as well trained as the AMO; hence, they can hardly be expected to carry out diagnosis.

755 People were greatly taken with the medical services available; they were not a replacement but an addition to traditional magical practices. When my interpreter was sick he was very pleased to swallow the pills I gave him, but his house was full nonetheless with numerous herbs collected for his complaint and these were being boiled in a pot or otherwise ingested simultaneously with my medicine. The Orokaiva view is that medicine, given for the purpose of curing, will be effective if it is stronger than the sorcerer causing the illness. It has been noticed that this is sometimes the case with Western

A [See Cat. 116, p. End Map 10--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that it be there for his mother and father to eat. As he slept that night before the feast, Ombota stole the food. That man's garden was empty. He had no food, so he had nothing for the feast. Therefore, looking for food, he had stolen that taro for his mother.

The day broke, the feast was in progress and Gasi's mother and father were very hungry. Then Gasi looked about for them. Straight away his parents asked: 'Where did you prepare food for us? We are now very hungry.'

That boy asked in reply: 'Where is the taro I fetched for you?' – 'We have no taro and we are very hungry.' Upon returning inside the house to look, Gasi then saw that the taro had gone. So he went round the houses to look for that taro and saw it lying in Ombota's house.

As Ivi and Gasi quarrelled with Ombota, the mother and father went down to Erehata creek, taking with them their entire small house, as it stood on its posts. They floated down that stream until it met the river Embara. The woman's name was Jomiko and her husband was Sirere.

They stopped when they had reached a place called Sorovi-Ereremba. Meanwhile their sons, about to give the feast, inquired where their parents were but could not find them. When the battle (*isoro*) was over, Gasi and the oldest son, Havurure, went away to find their mother and father. Upon arriving at the place called Sorovi-Ereremba, they saw them where they had come to a stop. Their parents told them: 'We are staying here but you must go back and feast.' The sons then went back, but their mother and father stayed behind.

At that time, their parents' words were as follows: 'We are staying here. In bad times you will hear no speech from us but if times are good, and you intend to hold a feast, then listen to our speech.' Thus they spoke.

Sirere turned into a stone which is still there today. In time of hunger we do not hear his speech. In good times, when a feast is about to be held, we hear his speech.

My small tale about feasts is finished.

Before discussing the meaning of this tale, I should explain briefly some ethnographic details. It is customary to hold a feast on the occasion of a departure, so the brothers' decision to hold one agrees with modern custom. On the other hand, it is irregular indeed to hold a feast unless it is known in advance that there is enough food for all the guests. A feast is always preceded by elaborate and highly ritualised checks to make sure that the supply of taro is abundant. We may regard the tale quoted here as a mythological charter for these ritualised checks which are discussed in detail in Chapter VII. It is still usual, however, for guests at a feast to be fed in the individual households where they are staying. Thus the taro used for cooking would be kept, as in this tale, in individual homes. The gift taro, laid out on platforms, falls in a different category.

The house in which the parents floated away must be understood as the prototype of the feast house. This is a small structure placed at one end of the central plaza (*araha*) of a village. It is built a few weeks before the feast and it is in front of and in the feast house that rituals are performed during the whole of the period that ceremonies last. We may take it that Jomiko and Sirere are

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 574 demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a [345] person occupying the office of feast leader who is charged with the ritual as well [554] as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

361 cultivating gardens that are more than a mile or so away from his village.

241 311 When Rimoldi made his careful notes of cultivated gardens, these seemed to be predominantly in the Northeastern part of the village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepa is again in that area.

731 361 Inonda experienced three shifts since the eruption: first to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).[A] The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 659 While the layout of Pamba was traditional--with the houses close together and little space between the rows--both post-eruption settlements of Sivepa and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend [364] to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [575] which the Americans laid down during the war. Sivepa got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including [591] Sivepa, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepa villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing 659 standards, village sanitation and roads. We find Wilfred Beaver, 364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 9. The chapel constructed on the new Inonda site. The material in the foreground has been set aside for the construction of an Administration rest-house. Note the preponderance of non-traditional materials - gathered from military dumps.

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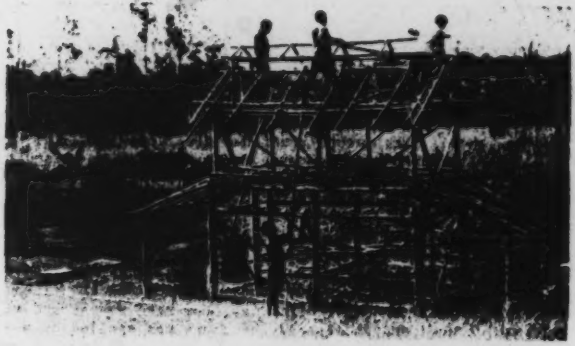

Plate 10. Erecting the copra-drier at Inonda - a communal effort.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income
[242] received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[659] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

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Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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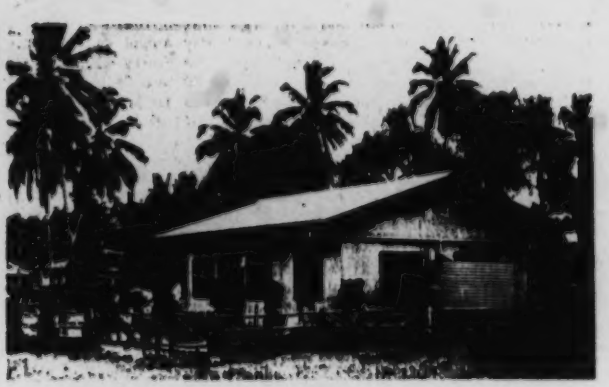

Gona villages co-operative store at Cape Killerton.

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½ d. to 4 d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 9. The chapel constructed on the new Inonda site. The material in the foreground has been set aside for the construction of an Administration rest-house. Note the preponderance of non-traditional materials - gathered from military dumps.

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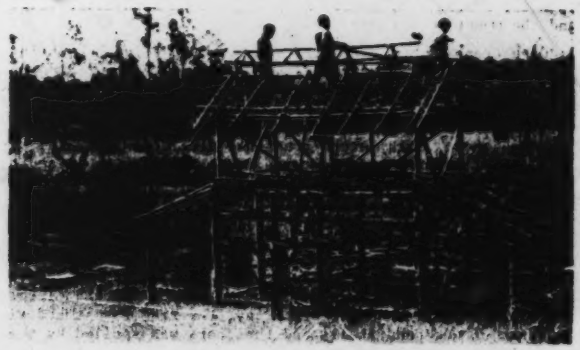

Plate 10. Erecting the copra-drier at Inonda - a communal effort.

support is an essential prerequisite to land reform in a democratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

From its inception the council expressed the view that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

177 Housing and village improvement: The changes in this aspect of culture
are capable of fairly precise description, which has been provided in
Table 10.A This table applies to Sivepe only; I shall refer to some
minor differences between Sivepe and Inonda at the end of this section.
335 The changes may be analysed into several main types. First, there is
412 the extent to which European materials and tools are used. Here, we note
177 that nails were a building material as early as 1951 (and therefore
also hammers), but a significant change has been the extent of their
use. The introduction of nails was partly a time-saving device, as
framing can be efficiently lashed together with the bark fibres
traditionally used. On the other hand, the "timber" walls might not
be easy to lash together and nails are probably necessary here. On
the other hand, the blackpalm or betelnut which is used for the floors
does not take nails at all well and the lashing is a superior technique,
177 used in almost all the houses. Secondly, there have been changes in
342 house design, and the use of materials. The increase in house size,
which was the most striking of the innovations, was general throughout
the village, according to a standard set by the leader and adhered to
by everybody. The change from betelnut to blackpalm flooring is
towards a superior, toughter material, harder to work and comparatively
rare in the Sasembata district. The change from sago to "timber"
walls was purely a matter of aesthetic fashion. I was told by Mr.
Sebire that it started in the early 1950's in the Kokoda district; in
Sasembata district it does not seem to have started until around 1965.
The new houses at the mission station had "timber" walls; so had the
new houses in several other nearby villages. Sivepe, being built on
a new site after the fashion started was wholly built in "timber"
(except for a few houses shifted from the old site and standing on the
new one and gradually replaced). The "timber" looks like weatherboard,
[335] which has been used on Australian houses in the Kokoda district. It
is cut from logs sawed to a length of six feet, which are then split
into shingles with a bushknife, a procedure which takes much time and
skill. The six feet long shingles are generally 3/8 inch thick and
five inches wide. The intention is to overlap them, providing better
protection against wind and rain than the sago walls have. The work of
cutting the shingles is so arduous, however, that the overlap is usually
quite small when the houses are built; as the logs are split green, the
timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European
[342] authorities. (The timber walls, according to administration officers,
were a purely Orokaiva idea.) For reasons of hygiene, the administration
wanted the houses to have windows, which traditionally they did not
have. The new houses have large windows, but they are all blocked up
with boards (to keep the wind and rain out) so that they are not functional,
[364] except in warding off criticism from Australian officials. The village
improvement measures: elimination of pigs, lavatories, rubbish holes,
[351] pens for chickens; are all based on European advocacy. The neat lines
of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepe. The changes found in New Sivepe are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[192] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepe if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes, bush knives, grubbers etc. Thus the preparation of the soil for
[412] gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepe has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepe growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahambo (pre-war)	2. Pamba (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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22: Schwimmer E-4,5 (1966-1967) 1969 QU23 Orokaiva QU23
Mount Lamington

11: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega

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Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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Gona villages co-operative store at Cape Killerton.

372 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando*, *dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the house). The floor is of split lengths of limbom (824) palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing (824) any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. (417) The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. 252 Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses 354 have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on ● 352 three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets 353 and bags hang from the ceiling and in every 415 house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

[P.10-B]

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353 [415] *tapa* cloths, also worn on ceremonial occasions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A [302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet [227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 [461] [614] [627] [584] A *gaga* is simply a talking platform where men sit for a chat, a chew (of betelnut) or a smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women. [289] The traditional body covering for both men and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout [191] the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year singsings, while many older people wear *tapa* to 323 church on Sundays. The Yega and their neighbours are expert tapa-makers but they did not [289] have either the suitable clay or the art of pot-making. They used to trade their *tapa* for pots 439 from Ambasi, thirty miles to the north, and from Wanigela, 100 miles to the south. This [178] trade has now declined because everybody can

[P-11-A)

[TEXT CONTINUED ON PAGE 12-A]

trade stores and wartime dumps. Most of the tools used regularly were purchased, but those in less constant use, such as picks, rakes, hammers and saws were mostly salvaged. The 'swimming glass' (goggles for fishing) is the only common piece of equipment not used in Sivepe.

Inonda differs from Sivepe in household goods in that hurricane lamps are in common use, partly perhaps because kerosene is available at the trade store. More people own torches, which are often used when hunting by night. Mosquito nets also are far more common in Inonda (although many are in poor condition) and this in part is due to a higher incidence of mosquitoes. Four households possess 44-gallon drums to collect rainwater.

Several women make their own dresses and skirts and one has a flat-iron (which was not used during the survey). Laplaps are much less common in Inonda than in Sivepe.

The different environments of the two villages are illustrated by various items in Table 4:14.

Table 4:14

Inonda: household property derived from the subsistence sector

Household no.	16	17	18	19	20	21	22	23	24
Item									
Sago-beater	4	1	-	3	-	1	1	-	2
Fishing net	1	1	1	-	-	1	1	-	-
Spear	3	7	-	3	2	4	3	2	2
Sleeping mat	7	3	2	2	-	2	1	4	2
Tapa cloth	1	-	20	1	-	2	-	-	5
Comb	-	-	-	1	-	-	-	-	-
Lime pot	-	-	1	1	1	-	-	-	1
String bag	5	2	4	1	2	4	2	6	6
Drum	-	2	-	1	-	1	1	1	1
Di and hambo	-*	28**	-	-**	7	-***	5	-***	-#
Clay pot	-	-	-	-	-	-	-	1	-

* Kept by relative in another village; quantity unknown.
** Given to household 17 by household 19 who retains right of use.
*** Some given away in exchanges, others stolen.
# Unknown quantity kept by daughter in another village.

In Sivepe there are no hunting or fishing spears or fishing nets, nor are there any sago-beaters whereas most Inonda men possess both spears and sago-beaters. The greater number of tapa cloths in Sivepe is probably related to its greater distance from Popondetta, and so to the general level of acculturation. This likewise accounts for

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HOUSING AND VILLAGE LIFE

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

subsistence shifting agriculture alone. This leaves hardly any margin for land unsuitable for cultivation, for bush land needed as a source of building materials etc., or for unequal distribution of land as between families.

We may divide the land occupied by Orokaiva into two broad sub-regions. The first is made up of the foothills themselves which have an 8 to 12 inch very dark brown top soil, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. This sub-region coincides approximately with the Saiho census division which had a population of 8,211 in 1966 giving a density of about 55 per sq. mile. The second sub-region, situated to the north and east of the first, consists of poorly drained but readily improvable plains. Here the population is very much sparser. Most village domains contain only a fraction of immediately utilisable good cultivation land and even this does not have the special fertility of the volcanic loam on the mountain slopes. The soils of Inoda, a village situated in this sub-region, have been discussed in much detail by Crocombe and Hogbin 1963, quoting the Commonwealth Scientific and Industrial Research Organisation (C.S.I.R.O. [1954]). This sub-region forms part of the Sohe-Popondetta census division which, as a whole, has a population density of about 20 per sq. mile. Villages are smaller and more dispersed.

The boundaries of what we may call the Orokaiva tribal area are probably best determined by the criteria used by the Papuans themselves, namely linguistic criteria. Orokaiva is part of the Binandere group of eight languages (see Wurm 1960) spoken in most of the more densely populated parts of the Northern District; of these languages, Orokaiva is spoken by the greatest number, but only about half the population in the Ovokaiva-Binandere area. The only language of this group for which a reasonably full description (grammar and dictionary) has been published is Binandere (Copland King 1927), a language spoken around the lower part of the Mambare and Gira rivers. Other languages of this group are: Orokaiva, Notu, Aiga, Huniara, Yema, Taindaware. While there are considerable vocabularly differences between these languages, there is a close resemblance in grammar and enough resemblance in vocabularly to make a very limited degree of intercommunication possible. (Chinnery and Beaver 1916 and an unpublished manuscript by Capell [n.d.]). We do not know much more about the Binandere group of languages except that it is a Papuan grouping (Grace 1968).

It seems to me that dialect divisions within the Orokaiva language area which have been noted at various times (Beaver 1916, Williams 1930) are rather minor. A fairly accurate idea of the boundaries of the Orokaiva language area may be obtained by ideptifying this area with the district administered by the Higaturu Local Government Council which covers the Saiho and most of the Sohe-Popondetta census divisions.

Williams (1930: 157–9) attempts to distinguish the Orokaiva language speakers from other tribal groupings by listing cultural differences (notably in dress and ornaments) but these are not pronounced and, under modern conditions, may be observed only on ceremonial occasions when headgear and bark-cloth are worn.

Prior to European contact, the normal mode of settlement was in hamlets containing 6 to 12 houses and surrounded by land used for shifting agriculture.

[TEXT CONTINUED ON PAGE 18]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional. Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5¾ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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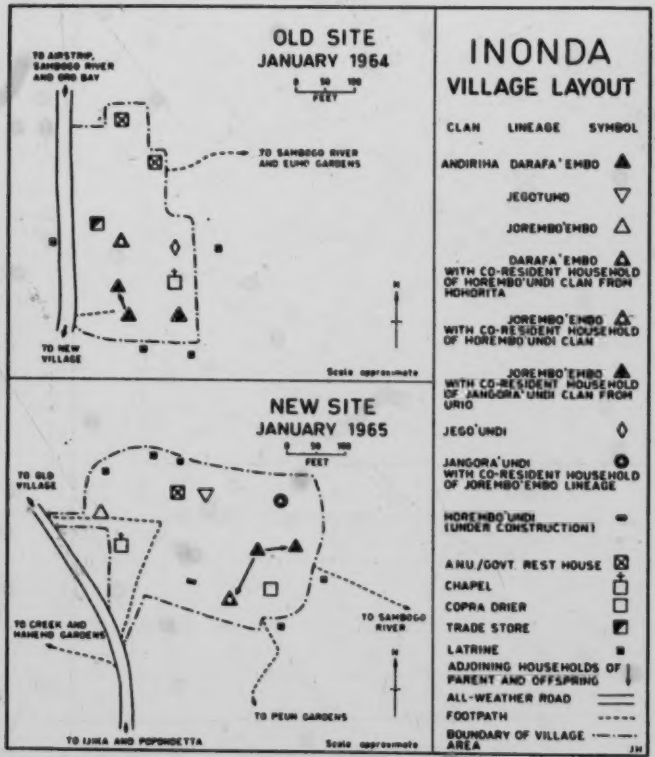

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
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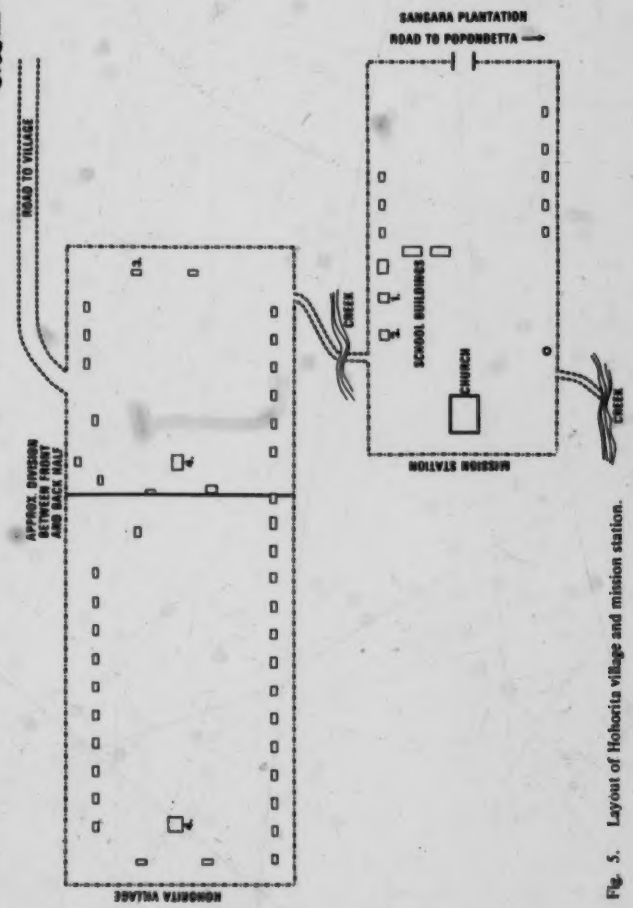

Fig. 5. Layout of Hohorita village and mission station.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and
105 Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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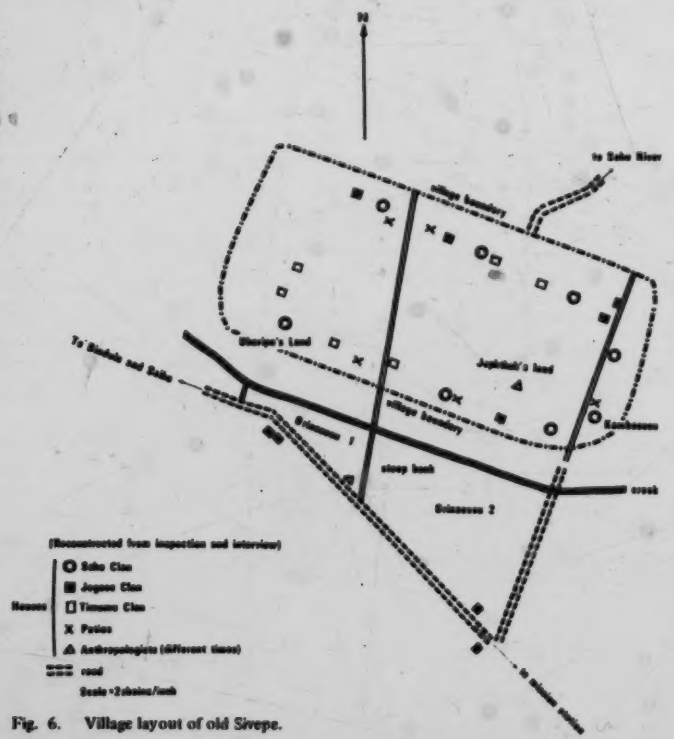
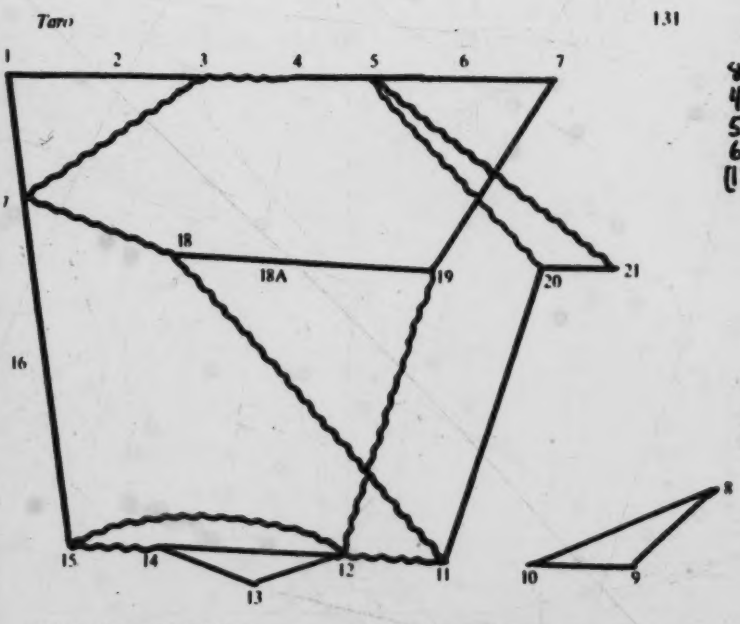


Fig. 6. Village layout of old Sivepe.



824
431
571
621
[128]

Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

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[361]

In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . ,Hn) is defined as a set in which H2 has a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 571 621 128 'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

361 209

824 431 571 621 128 614 The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

824 431 571 621 128 It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognizable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *arara*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and
[423] Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a single clan and comprised little more than six households. The Australian
621 authorities used a good deal of pressure to make the Orokaiva consolidate their
361 hamlets into larger villages which could be more easily patrolled, but by 1951
177 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE X/1

VILLAGE POPULATIONS AND CLAN ORGANISATION

Number of villages investigated: 15

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Name	*Population*					
(*a*) *One-Clan Villages:*						
Ajoro	50	Tandai'undi				
Inonda	42	Andiriha				
Irihambo	30	Oripa				
Sombou	70	Pangaripa				
Kakita	24	Hatopa				
(*b*) *Two-Clan Villages:*						
Binduta	100	Jegase		Usohu		
Garombi	132	Sorovi		Betu		
Hamburata	91	Ehirari		Ohuru		
Kongohambo	96	Pugege		Ameti		
Sivepe	137	Jegase		Seho		
Torogota	65	Jeipa		Jaumbi		
(*c*) *Four-Clan Villages*		ve/ih	ih/av	av/so	so/ve[1]	
Hohorita	348	Oripa		Besupa	Sehopa	Horeppa
Sasembata	162	Garoha		Pekuma	Ato	Takone[2]
Soroputa	200	Seraopa		Jaja	Java	Timumu
(*d*) *Multi-Clan Villages*						
Kiorota	429				12 clans[3]	

Notes

[1] ve/ih etc. are made up of abridgements of the Orokaiva terms *veari, ihane, avunu, sose.* for which see Chapter X, 5.

[2] No marriages between Seraopa and Jaja are permissible today, but both clans marry preferentially into the Hamburata clans. [582]

[3] This village was settled in 1958 by refugees from the Mount Lamington eruption who previously occupied a number of smaller villages, according to the following pattern: [166]

Homumuta	1 Haripa	2 Penonupa	
Isivita	3 Jegase	4 Berekipa	
Bosisepa	3 Jegase	4 Berekipa	11 Seraopa
Tambore	5 Oetopa	6 Ahungata	
Taremuturu	5 Oetopa	7 Pusaripa	
Pinda	8 Isivupa	9 Juvaripa	
Kandata	10 Jepuripa		
?	12 Omborapa		

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
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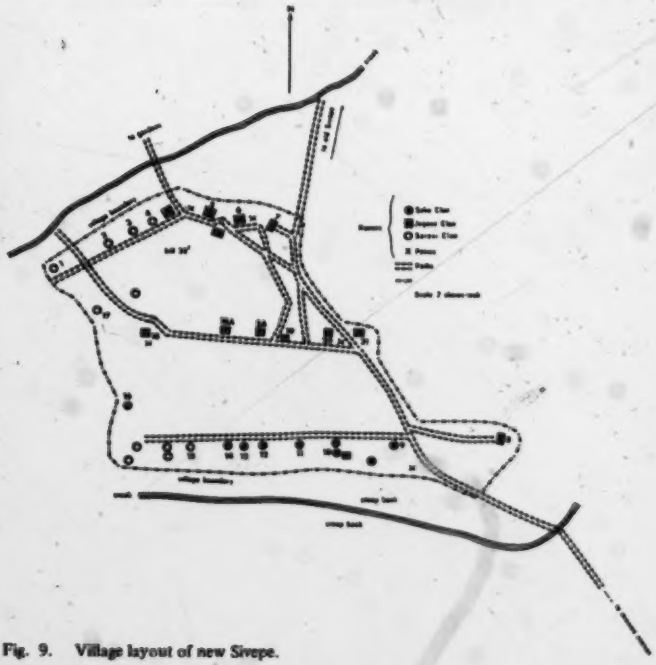

Fig. 9. Village layout of new Sivepe.

361 616 614 621 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in 1963 and 1964 show no formal separation between the clans. Some neighbouring villages, such as Garombi, however, did allocate one side to each of their two clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 616 121 I have now shown most of the evidence for direct marriage exchange and forms of dual organisation. The question that remains to be answered is why this system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

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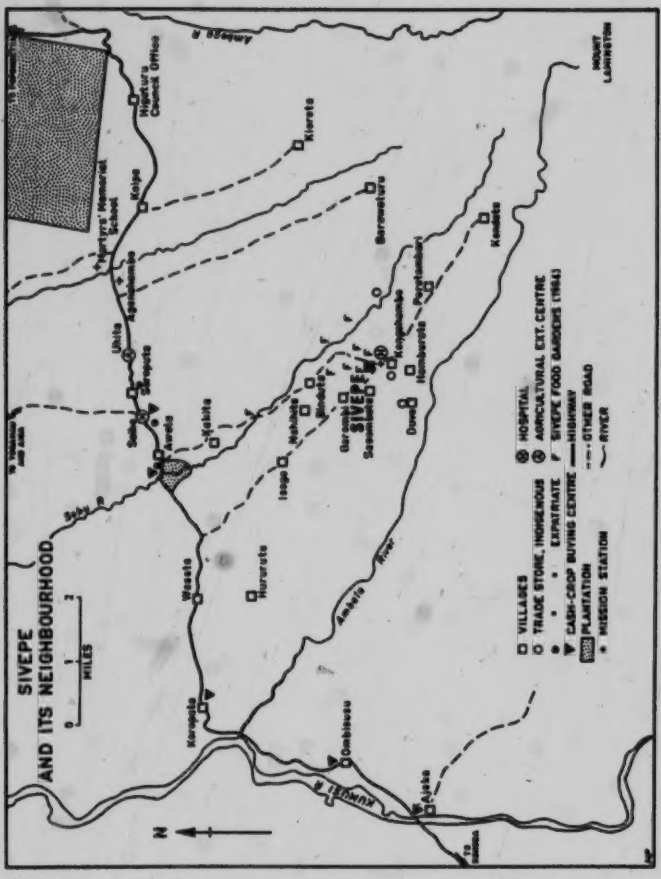

Fig. 10. Sivepe and its neighbourhood.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

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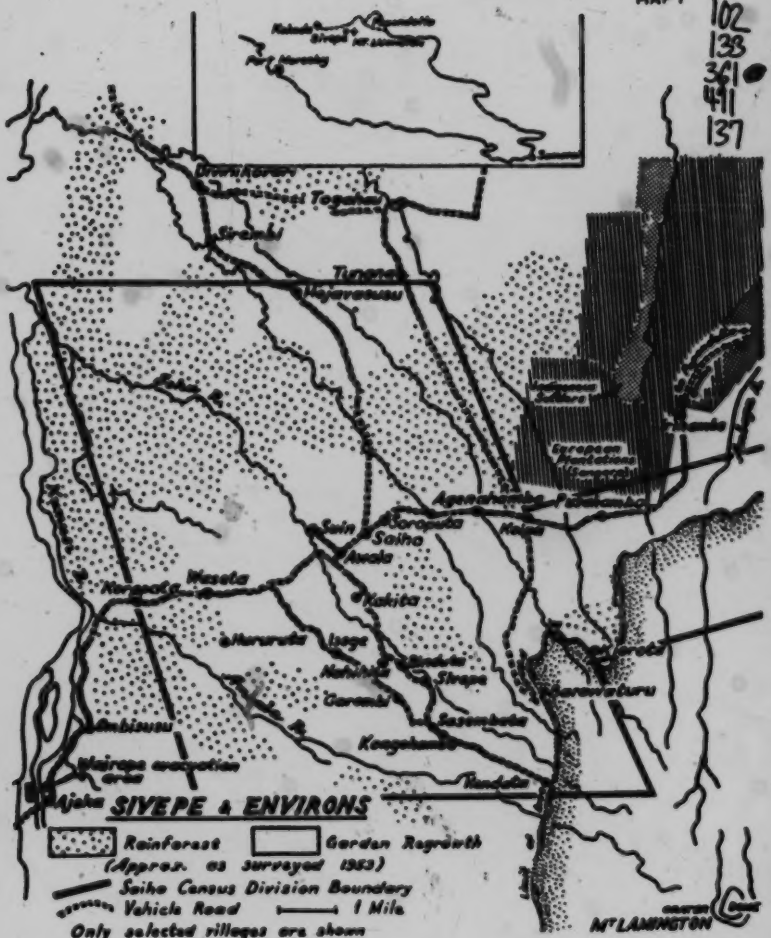

tribe, which included Sivepe. It occupied the volcanic slopes under fairly uniform and distinctive ecological conditions. The mountain Orokaiva now include roughly the 8,000 people in the closely-settled Saiho Census Division areas, that is, the people who have been called 'Wasida' or 'Periho'. They also include the members of the few adjacent villages who are the only 'Sangara' people surviving the 1951 eruption of the volcano.

Belshaw (1951:2) reported that among the mountain Orokaiva until 1951 'the residential group...consisted of a number of separated hamlets.... Hamlets grouped themselves together under a common name, such as Wasita 1, Isivita 1, Isivita 2 etc.... Each hamlet group, or "village" in administrative parlance, was separated geographically from its neighbouring hamlet group'. The two 'villages', Isivita 1 and 2, had comprised 19 named 'hamlets' and represented the Isivita 'native district' which, Plant[1] (1951: Appendix 4) says was joined with the Sasembata (8 hamlets), Koropata, Wasita, Awala, Soroputa, Sairopi, Mumuni and Wairopi districts[2] to form the Periho tribe. This 'closely approximates to' what Williams called the Wasida tribe.

Shortly before the eruption of Mt Lamington in 1951, Sivepe, Binduta, Mahihita, Pusahambo, Korinasusu and Heherita[3] were grouped under the name of Awala 2 and had a total population of 250,[4] compared with the range of 150 to 400 which Belshaw (1951:2) attributes to 'hamlet groups' in the area. There is a radical difference in size between the small hamlet described by Belshaw and the characteristic nucleated village of post-eruption years (excluding interim evacuation 'camps'). Nevertheless, we hereafter refer to both as a 'village' when not quoting. This does not

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1 Plant uses the term 'village group' for Belshaw's 'hamlet group' or 'village'. Williams (1930:131) refers to Belshaw's 'hamlet' sometimes as a 'village' and sometimes as a 'village group'.

2 He earlier (1951:3) omitted Mumuni and Wairopi - see p.31. On Map 1 see Hururuta for Mumuni District, and Ombisusu-Ajeka area for Wairopi District; the Sairopi people are about 4 miles south of the Mumuni.

3 The last 3 'hamlets' were not re-formed after the eruption; another which was established about this time took the name Awala No.2.

4 In a sample of 30 nearby hamlets in other groups in the Saiho Census Division the average hamlet size was 36 persons as against 41 in this group. Note also that in 1923 the Awala hamlets (including those in Awala 1) may have numbered 15 (Williams:W.83).

C21 obscure any important differences in structure and our historical
036 data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepo now has a population of 120 and is linked with Binduta, several hundred yards away, and with Mahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

131 Sivepo is situated on the western bank of the Sohu River, a
491 tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepo on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepo it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797 There were very few facilities for formal education in this
871 tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951.:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepo, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepo are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepo children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organization on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [121] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [657] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw 1951.

[2] See Crocombe 1964:31.

361 Moreover, the Yega cocoa project[1] has had a remarkable demonstration effect throughout the Orokaiva area; land development along similar lines as at Ombisusu is nearly everywhere under serious consideration and, whenever undertaken, may be assumed to involve some degree of resettlement on individual blocks. It is now government policy in the district to foster this spread of smallholder projects as a matter of high priority.[2]

121 We have attempted some comparative discussion by introducing material on another area of closely settled populations, Chimbu.[3] Firstly, this provides contrasts in patterns of residence and mobility, the intensity of subsistence cultivation and in the results of changes in land use. The Chimbu example is an appropriate test case regarding arguments for certain necessary connections between local systems of agriculture, the stability of settlement and the potential for schemes for land development among these Orokaiva. The settlement pattern eventually formed after the eruption affords data for instructive but not conclusive comparison with the pre-eruption situation. Secondly, a consideration of Chimbu land tenure and local organization throws some light on our Orokaiva data.

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1 This is fully discussed by Dakeyne 1965.

2 In late 1964 the many individuals interested in these schemes showed considerable interest in the new Land Tenure (Conversion) Ordinance, 1964 (Edric Eupu: personal communication).

3 See p.72 ff.

clan distribution can be obtained from the following summary of diverse information from the mountain Orokaiva and the Aiga.

The people grouped under the names Isivita 1 and 2 and Sasembata 1 and 2 numbered more than 1,600 in 1948 and occupied 44 villages. By the time of the eruption in 1951 the number of villages had been reduced to 27 (see Plant 1951: Appendix 3) and 40 clans had branches in one or more of them - there were at least 17 clan branches in villages other than these, representing 6 of the 40 clans. Eleven of the Isivita and Sasembata villages consisted only of members of 1 clan, although only 3 of these villages constituted a whole clan.

Williams (1928:124; 1930:101) suggests that a periodic increase in the 'multiplicity of small clans', caused by subdivision, is only 'in part neutralized by the dying out of older clans'. He says that there is a marked consistency in clan organization throughout the Orokaiva area (1925:406)[1] and in 1923 the generalisation that 'local and lineal groups seem to be largely coincident' was true of the Jegasi-Sarahu, i.e., the Wasida group of villages (W.10, 31). In this context he adds that this pattern was altered somewhat by the dispersal caused by a special factor: an attack by the first government patrol on Wasida and neighbouring villages. He does not record the relevant clan branches present in local groups other than the 15 Jegasi-Sarahu villages of the tribe, but 5 of the 7 clans listed are seen to be represented in more than one village. However, only 2 of the 15 villages contained 2 clan branches. The average village consisted of 6 houses (normally nuclear families) and a single-boys' house (W.1), perhaps 25 people in all.

Data collected in 1924 among the Aiga show that there were 37 clans among the 50 villages of the tribe, with an average of about 35 members, or perhaps 'a dozen families', in each clan (Williams 1930:7, 101; 1925:418). Williams says that the 'normal', 'typical' or 'original' residential group was the 'clan-village' - clan and village were coextensive (1925:407; 1928:124; 1930:103, 310; and 107, 131) - but notes that in the larger villages there were 'often two clans or more' (1925:407). In fact, 12 of the 24 clans listed in 36 of the Aiga villages had 2 or more branches there (0.19, 20). Yet Williams might then have argued that in such instances fission would soon be completed and 'the normal conditions restored, viz. the clan locally unified and in

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[1] Cf. Reay 1953:110: Williams' information on the Aiga, Binandele and Tain Dawara tribes reveals 'a social organization practically identical with that of the Wasida people'; see also Williams 1930:7.

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
614 temporary 'confederacies of clans', which conducted raids upon
[701] the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

[634] However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Pariho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

621 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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[721] [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo jawo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Horton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

7: Rimoldi et al. E,I-S (1962-1963) 1966 OJ23 Orokaiva OJ23
Mountain Orokaiva
Sivepe

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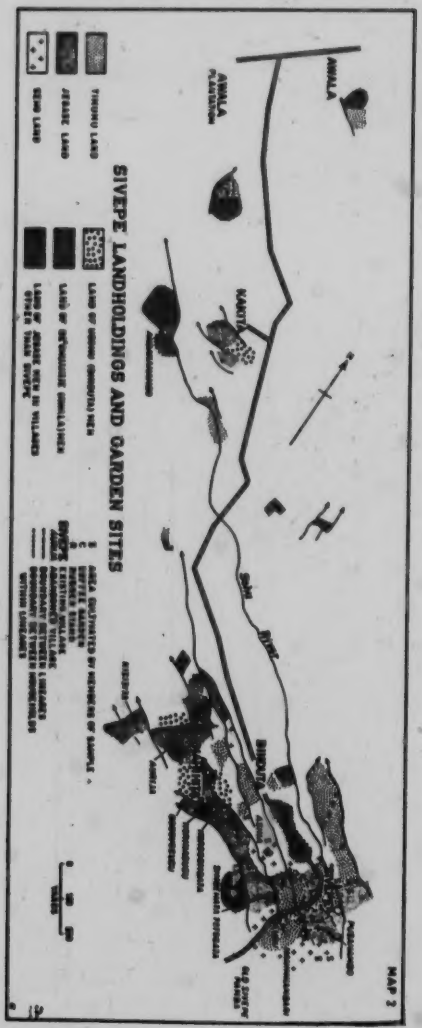

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

166 In about 50 years preceding the establishment of their present
361 village the groups now represented in Sivepe had between them
177 been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in
[621] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(i) Migration 1900-50: The Bebehupa moved from Simbehata to Korogombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Nahihita nearby.

[657] In 1930 the Administration instructed the Bebehupa of Korinasusu and Nahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

A,[See Category 102, p.40--Analyst]

166 the Jegase people had no land on the Awala-Kendata road nearby,
36 where they decided to build, they acquired rights to house-sites
613 on the road on the land of the Be'ohuahije[1] in return for rights granted to some members of that clan to build on Jegase land 3
425 miles away at Awala No.1. The Jegase people had begun to move to
731 the new village, now Binduta, when Mt Lamington erupted. Although they were outside the limits of the area of destruction the people were evacuated for safety.

The Sesewopa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepe had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sohu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

682 The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timumu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohuahije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepe (d3J). This man's son is the third Berekipa household head (e2J).

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1 The Be'ohuahije formerly lived in the nearby villages of Saunhambo and Hehereta and their land adjoins Sivepe village.

2 See Genealogy, p.52. A

3 For relationship between namesakes (tato) see Williams 1930:96.

4 See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A, [See Category 601, p. 52--Analyu]

166 Neither the man nor his son has every cultivated his patri-
●361 monial land at Hamburata although they hunt and fish there. The
613 man makes these periodic visits to affirm his rights as he claims that constant surveillance is necessary to forestall encroachment on his land. His father's brother controls the land in his absence.

By 1950 the members of the Berekipa households who numbered 12 had thus acquired only 5 parcels of land (totalling 9 acres) near Sivepe since the lineage returned from Hamburata 30 years before, [657] and had to rely on other lineages for access to adequate land. After the war the Berekipa were asked by the Administration to move from Pusahambo to a village called Pamba where Arehu lineage was living. They seem to have been largely dependent on the Arehu and on affines elsewhere for planting rights since then.

The Arehu people had founded Totogata next to Simbehata and remained there after the other Jegase people had moved on to Euru and Korogombata. Some members of Bebehupa lineage, in refusing to recognize Arehu as a genuine Jegase lineage, explain that it is an immigrant group descended from a Togahau man of Arehu clan[1] who was adopted as a child after a Jegase raid on the Togahau. The land the group now holds is centred on Simbehata and the Bebehupa, although they take little interest in it, allege that it was acquired when the Jegase man from Simbehata was killed at Divinikovari. The Arehu have retained and strengthened their rights over the years and to all effects have become absorbed into the local branch of the clan, extending their effective ties there by intermarrying with other lineages. When pressed, the only resident male (d4J) even answers questions about the position ascribed to him as one of the agnates in the local group by [578] stressing that he and his father married Jegase women, as if no more need be said. The grandson of the alleged original landholder has disputed the rights of the Arehu man to the parcel of land on which the old village Simbehata was situated.

[657] Several years after the ancestors of the Bebehupa left Simbehata the Arehu were told by a government officer to amalgamate with other Jegase people and with the members of Timumu and Seho clans from Euru and Asina. The village formed on Seho land was old Sivepe with its satellite, Pamba; most of the people stayed there until they fled the Mt Lamington eruption in January 1951.

The Pakuma and Hajejopa lineages of Timumu clan had both joined the Jegase and Seho people in founding old Sivepe. The fathers

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[1] This clan today is represented in Sirembi village in Togahau Census Division and possibly in other villages there. In 1923 Williams (O.1) noted that they were also present in the villages of Pororí and Ohamba.

[TEXT CONTINUED ON PAGE 45]

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7: Rimoldi et al. E,I-5 (1962-1963) 1966 OJ23 Orokaiva OJ23 Mountain Orokaiva Sivepo

SCHEMA OF MAJOR LOCAL MIGRATIONS 1900-1950*

● Extant Village ○ Village now abandoned

[8] Original Centre of Dispersal of Jegase

Double lines on arrow indicating a movement means that village was thereby abandoned
Movements with same date and destination were directed by administration, as was Berekipa move in 1948

*Excluding wartime movements

Relative positions of villages are distorted for the sake of clarity. (See Map 2.) Most prewar dates have a margin of error of at least 5 years: Figures are given only to indicate sequences. Dates most in doubt are marked ?

166 of the 2 senior men of Sivepe had divided their allegiance between
•361 branches of the clan at Euru and Soroputa and had exercised rights
613 to land near both places. Since the death of his father the Pekuma man (d1T) has lived first in Euru and then Sivepe with his mother's kin and later his wife's kin. He and his adopted son (e1T) hold 28 acres nearby but he has never cultivated the land his father used at Soroputa; he sometimes obtains the permission of his father's brother to collect the produce from trees his father planted (see p.24).A

About the time the older Hajejopa man (d15T) established his household at Euru, he was involved in a dispute with his father's kin from Soroputa who wanted him to return or else relinquish his rights to the land his father had cultivated there before settling permanently at Euru. Like the Pekuma man he preferred to settle on the comparatively large landholdings (18 acres) near Sivepe and severed most connections with Soroputa.

739 (ii) Changes following the 1951 eruption. Sivepe-Pamba and
361 Binduta were a few miles outside the area destroyed by the major eruption. Referring to the population of these marginal areas Keesing (1951:3) says that 'after the first panic of scattering... local groupings were in the main able to reassemble in the regional camps with such official aid as was necessary'. Refugees from the west side of the mountain were collected from emergency encampments along the Kokoda road and taken to a regional camp first at Wairope and then at Ilimo near the Kumusi River. The villages of the Jegase and Timumu were included in the danger zone which was defined about 4 months after the first eruption. They were about 7 miles from the summit and the danger area extended for 8 to 12 miles around the active crater.

When the limits of the zone were determined about 3,000 people whose villages were not closed off or who could find kinsmen to live with in resettlement areas outside the zone left the refugee camps. Most of the 2,000 who remained for some time at Ilimo were from the villages such as Sivepe on the more fertile land higher up the west and north-west slopes. Members of our sample however left to live with clansmen or other kin at Awala No.2 on the main road. In the chain of fairly continuous settlements which grew [578] along the road great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among leaders from different local and kin groups.

Most of these villages were still partially dependent on emergency rations issued to them while breaking in new gardens. Some of the Jegase people in Awala had their own small pockets of land nearby where they planted emergency crops and foraged; some made excursions during the day into the closed area to collect

A.[See Category 428, p.24--Analyn]

73| food from their abandoned gardens which they found in good
361 condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

613 It was not long, however, before the Timumu people became
361 involved in a protracted dispute with members of Kongahambo
[578] village (a new resettlement concentration near Sasembata), over
[177] garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

Meanwhile the Bebehupa had returned after the eruption to
[754] Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

614 (iii) The distribution of other clan branches. One Jegase
361 clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Wahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondobe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

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[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

614 •36 their previous location[1] and the territory of their traditional enemies, the Divinikovari and Togahau, but informants disagreed as to whether this occurred before or after Europeans had established control of the area.

Timumu clan had also originated well to the south near Sasembata (according to its members at Sivepo) but fairly early in the century part of this clan too occupied land around Soroputa nearer the Togahau. Other members of the clan live at Sasembata, Hamburata and Kakita and possibly other villages.

The ancestors of members of Seho clan in Sivepo are said to have moved to the nearby village of Haninkambari from an area closer to the source of the Sohu River on Mt Lamington. While at Haninkambari they clashed with the first government patrols in the area. About 1910 some of the Seho people established another village, Asina, nearer the present site of Sivepo, later moving to join Timumu and Jegase groups at Euru. These old villages have now been abandoned but Seho clan is represented in numerous other villages in the area.

c. Localised descent groups

621 Our comments on the clan and village have emphasized that the typical village consists of several groups from different clans. Migrations also have usually been by representatives of particular groups. We now turn to an account of the individual's kinship and affinal relationships within the village. This aspect is best approached with an examination of post-marital residence.

591 (1) Residence. Post-marital residence is ideally patrivirilocal. But where residence is found to conform to the ideal, any reference to this norm should be supplemented by further data on the links between co-resident kin if we are to give an adequate account of the kinship composition of local groups; moreover, adults have a wide choice of residence. In fact, of the 12 householders in our sample, 5 were not living in their father's village, although 1 of these was living with his adoptive father (his mother's second husband who was a member of her natal village); the other 4 were living only with matrilateral or affinal kin, or both in one of these instances.

It is significant that only 1 of the 7 men remaining had established his household in a village to which he was affiliated

[1] This location may not in fact have been near Sivepo. It may have been Ombisusu (near the pre-contact village of Wasida) which Williams (W.10) says Jegase people abandoned to establish Suin after the arrival of the government. This may have involved a move down the slopes.

613 Overall the land of Berekipa lineage is more fragmented, though less scattered than the holdings of the Bebehupa, which are larger.

From detailed accounts of completed land transfers between the Berekipa and Arehu, whose present holdings are mostly interspersed[1] near the sites of Simbehata and Pusahambo, and from other historical data we infer that this land previously formed far more continuous tracts belonging to descent groups such as these. To a noticeable extent the spatial relations between the shares of the Bebehupa, Berekipa and Arehu in the extended tract of Jegase land marked by the sites of former settlement can be construed as a teritorial correlate of the pattern of each lineage's ancestors' migrations to or from local groups there. The shifts of residence relevant today are remembered in some detail.

e. Land use and mobility

241 Williams (1928:156) advocated a change from shifting to sedentary agriculture for the Orokaiva on the grounds that the former was wasteful of land and labour, and that the tendency to form small independent settlements resulted from the 'lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site'. He considered shifting agriculture to be 'one of the most potent causes of village and clan disintegration'.

[36] Keesing (1951:8) noted that the mountain Orokaiva had generally resisted the post-war movement to consolidate into larger villages. So long as the 'mobile economic base' persisted, he considered that resettlement into larger permanent villages after the Mt Lamington eruption would be unlikely to succeed. The Orokaiva showed no inclination to adopt more intensive sedentary cultivation and he predicted that a return to shifting agriculture would involve 'seasonal movement' outward from the environs of the settlements to new cultivation areas, and later the resumption of settlement in scattered hamlets. In view of these assertions about the connection between agricultural practice and settlement patterns, upon which Williams and Keesing based their discussion of economic development, it may be useful to examine the relations in Sivepe between mobility and village stability on the one hand, and traditional land use on the other.

62 [36] [72] Keesing suggests that the tendency, mentioned by Williams, for the Orokaiva to disperse into smaller residential units since pacification had been particularly marked on these heavily populated slopes. The suppression of intertribal feuding probably

[1] To a lesser extent they are also interspersed with parcels of other lineages' land.

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepo. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepo people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

166 Individual mobility is still high, as we have already noted.
[342] Mobility is facilitated by the fact that material for housing - wange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

36 The patrol of 1948 which found this area 'literally a mass of
[621] small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

361 When people began to leave the evacuation camp there was a
178 spontaneous trend, which was encouraged by officials, towards
621 building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

[177] Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

621 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

621 At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[154 166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [166] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

171 241 361 Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as Williams says, the Orokaiva move their garden sites frequently. Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Hahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous holdings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepo on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepo. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
M result in repeated changes of residence as it does among the
425

[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Chapter 5

The land and economic development

433 a. Shifting cultivation and residential stability

Under the present system of horticulture the amount of land surplus to current subsistence needs is small and imposes limits to expansion of commercial agriculture.

Williams (1928:154) regards the system of subsistence cultivation as wasteful because it requires such a large area per person. However, the practice of shifting gardens frequently and for short periods on scattered plots does give maximum yields and maintains soil fertility. Brookfield and Brown (1963:166) point out that no successful alternative to land rotation has yet been proven for subsistence agriculture in the tropics. Population pressure and soil fertility are not sufficiently serious problems on the slopes of Mt Lamington to warrant the measures which Fisk (1962) recommends in other circumstances.

●[361] Keesing (see Chapter 3, Section e) argued that the rotation of land adversely affected social stability. But the settlement pattern which developed after the emergency shows that there is no necessary connection between dispersed settlement and either the local population density or the method of bush fallow rotation. Some very large villages formed after the eruption (e.g., Soroputa and Kiorota) retained large groups of immigrants who owned no [166] gardening lands near at hand. The present high rate of mobility between other villages, most of which are much larger than before, is not closely correlated with the shifting of garden sites. Among the Chimbu, by contrast, land use is more intensive, but frequent shifts of residence between scattered hamlets are related mainly to gardening needs.

178 With the introduction of cash cropping the Chimbu pattern of
361 settlement is becoming more permanent (Brookfield and Brown
166 1963:98). There is little significant evidence either to support
241 or oppose our belief that the planting of individual coffee plots since the mid-1950s has not been associated with a drop in

178 individual mobility among the mountain Orokaiva. We especially
361 doubt the generalisation that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups hold proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Norton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing [241] since 1956. Our evidence, however, shows that the significant [178] change has been rather the introduction of a new method of cash [177] cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 Norton expresses a view widely held among government officers[3]
614 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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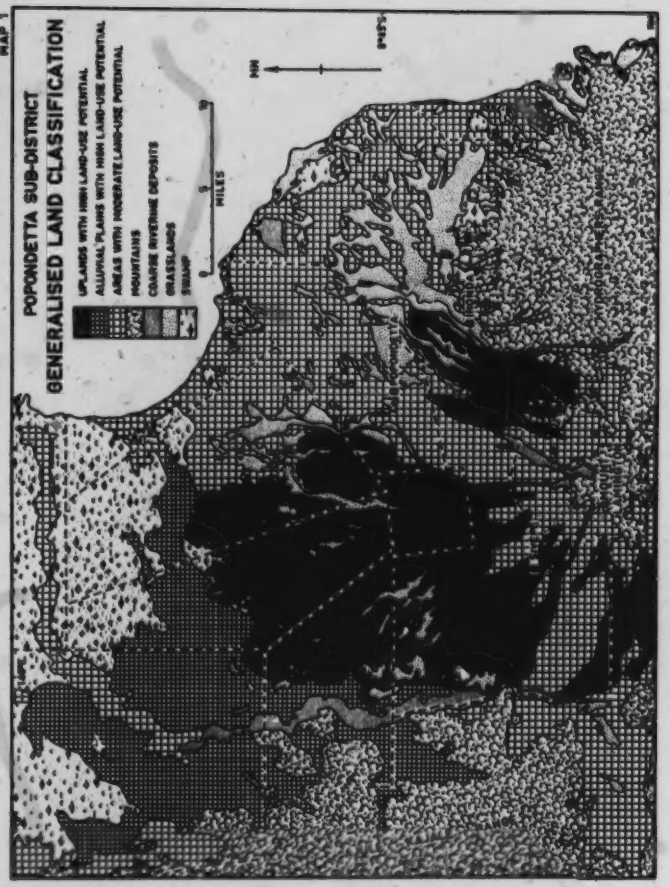

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MAP 2

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0123 Orokaiva 0123

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Togohau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huburindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Cona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

Chapter 3

The village economy

This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

(a) The subsistence sector

(i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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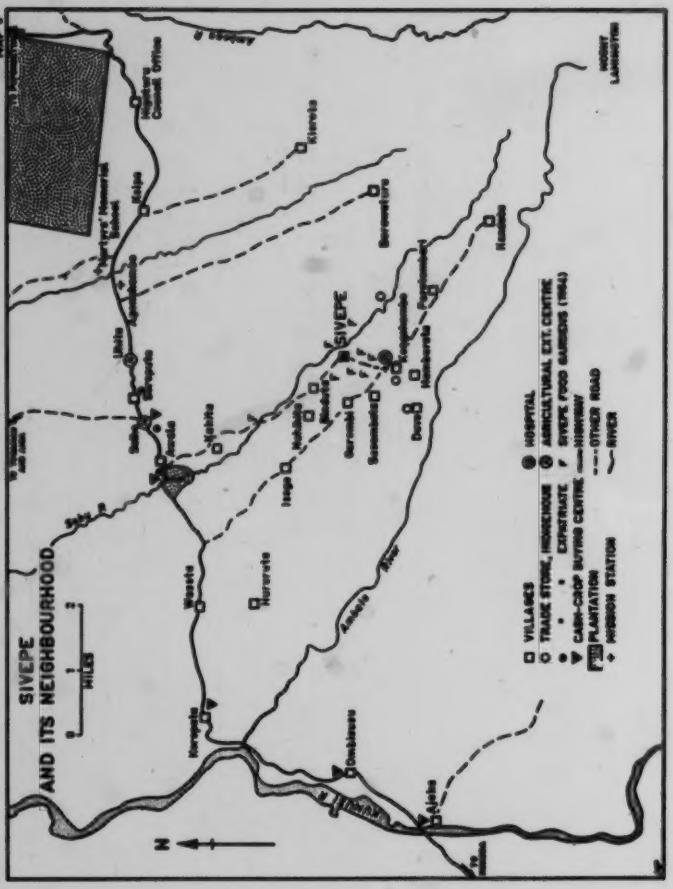

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is characterised by fertile loam topsoils and a close-textured drainage
137 system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-
311 use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

301 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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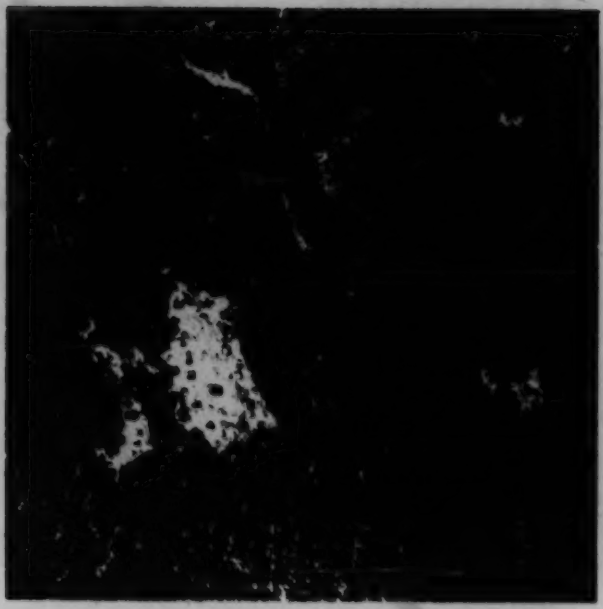

Plate 1. Sivepe - a 'line' village located in a forest clearing adjacent to the Sohu river and a minor vehicular road linking Sasembata and Awala. (Vertical photograph, scale 1:2,200.)

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of mails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

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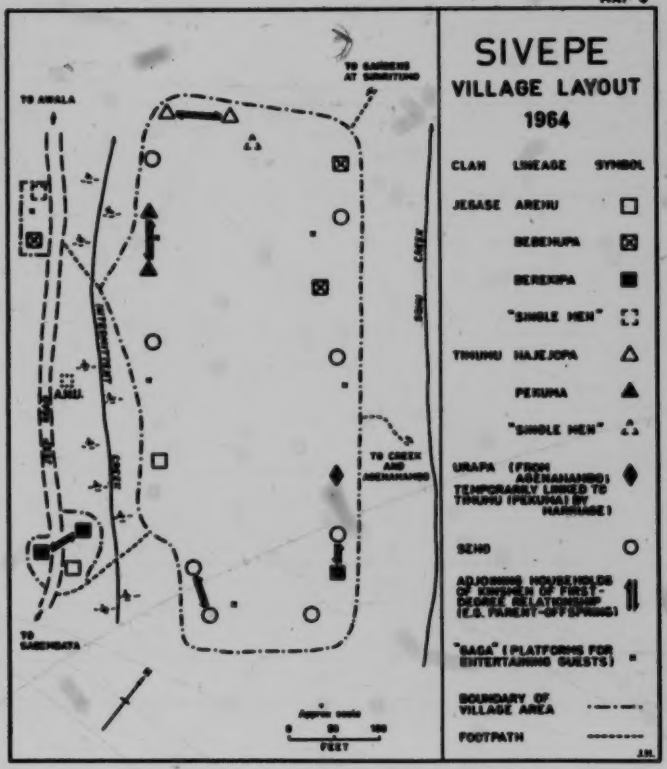
MAP 4



man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in clearing the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 491, pp. 34-37--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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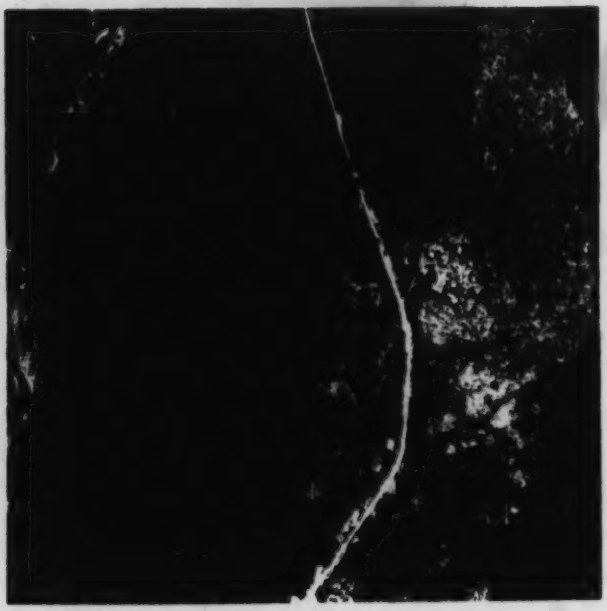

Plate 2. Inonda - the new village situated close to the grassland/forest boundary. The main Popondetta-Oro Bay road runs between the village and the Girua river.
(Vertical photograph, scale 1:4,200.)

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Muhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 The village is about ten miles from Popondetta, to which it is
368 linked by a good all-weather road. About three miles towards
131 Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them
366 by a former resident of Inonda and several others from nearby
368 villages. There are five trade stores on or near the blocks, two
133 of them expatriate-owned, and a new Administration school. This
508 latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was
494 closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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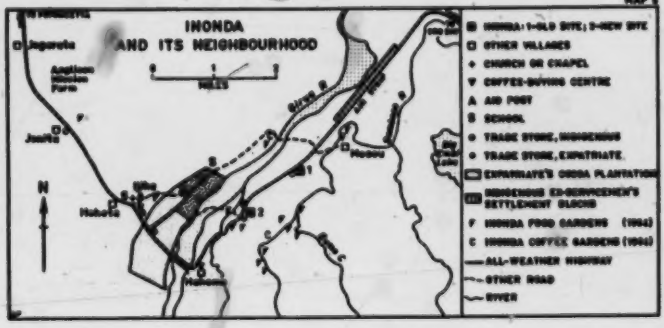

361 Like Sivepe, both sites of Inonda were laid out as line villages.
621 Here the tendency for grouping of kin is more marked but still not
342 rigid (see Map 6). The houses, with a mean size of 282 sq ft, are built largely of local materials, but incorporate some exotic items including nails, and, in certain cases, corrugated iron roofing from nearby wartime dumps. In addition to the residences, there is a rest-house, a copra-drier, a small trade store and a chapel. Brief weekly services are held by a villager who was once a mission teacher and who also owns the store.

162 In January 1964, the resident population of the village was 35, with 16 adults, a drop of seven since the time of Crocombe and Hogbin's survey (1963:58). The nine households had an average of 3.9 individuals or 1.8 labour units. No births or deaths occurred during the survey but there were three arrivals and seven departures giving a total of 31 people, including 16 adults, in January 1965.
166 In addition, several people from other villages stayed temporarily with kinsmen in Inonda. At first, there were two local clan branches in Inonda, the Andirihaha and the Jego'undi, the latter being represented by a single family.[1] When the village moved in 1964 the Jego'undi man, having virtually no rights to land near the new site, decided to move instead to the nearby village of Hosou, which is built on his land. He, his wife and four daughters were from this point (July 1964) excluded from the daily interviews, which explains the most prominent change, namely the loss of female children, in the age-sex structure diagram (Fig.4:2).[2] In contrast with Fig. 4:1 for Sivepe, Fig.4:2 shows neither males nor females in the 15 to 19 years age group; the largest concentration of adult males is in the 20 to 24 years group, where Sivepe has none. The proportion of long-term absentee adult males was 16.6 per cent in January 1964 (i.e. two out of twelve) and 25 per cent in 1965, the rise being due to the departure of the Jego'undi man. One absentee is normally resident in Port Moresby and seems unlikely to return except on retirement; the other, his brother, lives less than three miles from Inonda at Ijika near Hohota, which is his widowed mother's village, and he constantly asserts his intention to return to Inonda.[2]

621 The major agnatic links of the Andirihaha people are with Hohota, but extend to Kakandetta and Hanakiro, ten miles away, while

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[1] A third local clan branch, the Horemba'undi, is represented in Inonda by a single household, which is resident through affinal ties and it has no right to Inonda lands, although it is allowed to make food gardens there.

[2] i.e. two of the three 'absentees' continue to reside in subsistence villages, unlike the Sivepe absentees who are all in, or seeking, full-time wage employment elsewhere.

[TEXT CONTINUED ON PAGE 55]

A, [See Category 162, p. 58--Analyst] B, [See Category 162, p. 39--Analyst]

8: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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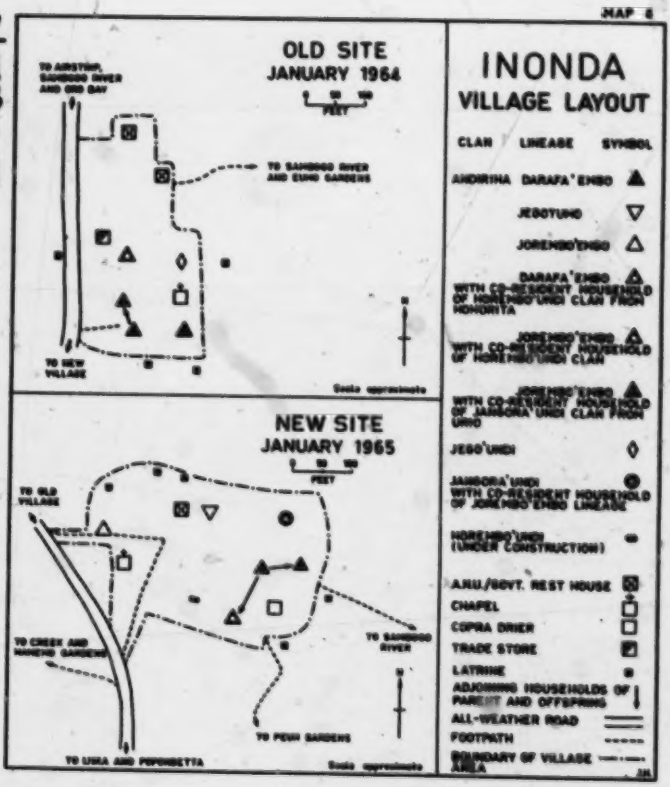
MAP 6



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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 5.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivepe is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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[48]
[482]

In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

[491]
[36]

One of the stated aims behind Sivepe's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 110]

484 produce could be sold directly to buyers at the village.[1] Nothing
[491] in Table 6:11 suggests that this move is related to the changing
[361] location of gardening activities since the percentage time spent on travelling in connection with clearing activities is actually less than that in connection with subsistence gardening.

Table 6:11

Sivepa: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

[361] [1] Other reasons given for the move included, firstly, that the new
[824] village would be an amalgamation of four existing ones and this
[825] enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

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> village to food gardens and to cash crops. An individual had only a small amount of land on each plot, preventing large-scale planting in one area. Since conversion each man's scattered holdings have been brought together into one large easily accessible block. (Morawetz 1967:18)

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In Sivepa, travelling to and from the point of work accounts for 18.2 per cent of activity time.[1] Household tasks, being mostly sedentary, involve little travelling. These apart, the lowest proportion of time consumed in travelling is for cash cropping - only 8.3 per cent. Since coffee and rubber are permanent tree crops every effort is made to establish such holdings close to the village, and extensive planting may result in the stabilisation of settlement. However, because the cultivation system associated with subsistence crops is entirely different from that associated with the cash crops, any periodic need to relocate the village in relation to areas currently being exploited for food gardens can easily negate initial economies relating to the journey to work. Rimoldi (1966:41) states:

> In about 50 years preceding the establishment of their present village the groups now represented in Sivepa had between them been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Soku River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units.

Whatever the real reasons for such moves, the effect on cash crop holdings is clear. The proposed move of Sivepa to a new site will double, at least, the time spent in travelling to these gardens.

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Even other subsistence activities, which are essentially village based, require 10.1 per cent of total time in travelling to and gathering the raw materials. However, miscellaneous activities apart, social obligations involve the highest proportion of time being spent in travelling - 36.7 per cent. The wide scattering of clans into a number of branches and the pattern of patrivirilocal residence largely account for the distances travelled in connection with social activities, although the scale of movement has undoubtedly increased following contact through kinsmen employed by the external agencies active in the District and others with settlement blocks at

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[1] While the corrected figure of 15 per cent shown in Table 6:11 reflects the actual time spent travelling during the course of the survey, 18.2 per cent is a more normal figure on account of the journeys made in the researcher's vehicle during the survey. The high figure of 40.7 per cent for other activities largely reflects missions undertaken specifically at the researcher's request, but in terms of actual time these are of little significance.

8: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

1133 M9

attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

1133 M8

Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of [illegible]-cash crops' (Johnston 1967:60).

[565] [71]

361 M8 IGC

Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites.

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector.

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine.

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work.

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

311 by the dispersal of suitable agricultural land over a wide area, creating a large 'journey to work' component in all productive tasks. After moving the village to its new site, an area about twenty minutes' walk away was selected for extensive new coffee gardens (partly on the grounds of proximity to an ample supply of water), but it was eventually rejected and seedlings were planted instead in harvested food gardens only five minutes away from the village.

433 For the indigenous producer transport is a major consideration. Clark and Haswell (1964:157) state that

> The methods of transport available to subsistence agricultural populations...are so costly that produce only has to be carried a limited distance before most of its value, from the point of view of net returns from the sale, has gone.

Porterage is arduous work requiring a good diet, and the minimum cost measured in terms of kg. grain equivalent/ton km., is high compared with other modes of transport.[1] The lower the value of a good per unit weight the more critical this factor becomes. In the case of coffee and copra, where initial processing results in a weight loss in excess of 80 per cent,[2] considerations of distance from the planting to the village (where the processing is carried out) are [36] particularly important. The Sivepa people market their parchment coffee at a point about one hour's walk from the village but they consider the distance excessive and hope to eliminate it by relocating the village on a road accessible to buyers' vehicles. If a journey of one hour's duration is considered the maximum they will carry their parchment coffee, it is reasonable to suggest that one-fifth of this time, or twelve minutes, is the maximum they are prepared to walk from village to garden to harvest the crop. Certainly it is evident that, given the means of transport available, the marginal utility of cash cropping decreases rapidly from village to garden and to point of marketing, with the rate of decrease considerably higher in the former direction.[3]

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[1] See Clark and Haswell 1964:160-3.

[2] Among the Chimbu of the New Guinea highlands it is estimated that 5.48 lbs of arabica cherry produces 1 lb of parchment (Brookfield: personal communication) - a weight loss of 81.8 per cent. It is assumed that the kernel comprises one-third of the total weight of a coconut and, of this, 50 per cent is water. In good quality copra the moisture content is reduced to 6 per cent - i.e. a weight loss of 81.6 per cent is effected in the production of copra (Department of Commerce and Agriculture 1953:1).

[3] While the ratio may remain constant the actual time involved will, of course, vary greatly from point to point, according to such considerations as the utility of money, expectations from cash cropping, etc. Thus the Aiga must walk for 3 hours or more to sell their cocoa (Rimoldi: personal communication).

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blockholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

Changes in the Yega settlement pattern after 1960

361 178 Influenced by rapid changes in land use, the location of Yega residences radically altered after 1950. Figs 1, 2 and 3 illustrate the evolution of settlement up till 1950. In 1950 the Yega lived in small villages spread along four miles of coastline. In 1952-3 occurred the major amalgamation of dwellings into Beporo (166) village already mentioned (p. 29). Members of all clans took part in this move. Although none of the other villages went out of existence at this time, all diminished in size while Beporo grew 161 rapidly. Table 4 shows the estimated distribution of population 162 [TEXT CONTINUED ON PAGE 42]

Table 4

Distribution of total Yega population by villages in 1960, 1962, and 1964

361 162 103 161

Village name	1960 estimated	1962 November	1964 July
A. Coastal			
Surilai	60	52	61
Niniyanda	44	9	5
Kanaunje	15	17	11
Basabuga	17	19	14
Tarebosusu	7	10	Nil
Banumo	14	8	10
Gombe	19	15	19
Siumbago	9	13	Nil
Beporo	335	275	164
Gona Mission	7	6	18
Subtotal	527	424	302
B. Inland			
Gatara	6	6	6
Konje	Nil	6	97
Otobejare	Nil	8	13
Imangada	Nil	3	8
Humburada	Nil	17	47
Ononda (D.A.S.F.)*	Nil	5	1
Ononda	Nil	41	66
Binjapada	Nil	51	61
Jamberoda	Nil	Nil	15
Subtotal	6	137	314
Total	533	561	616

* Department of Agriculture, Stock and Fisheries indicated that these informants had made no attempt to build houses of their own but were using the facilities available at the D.A.S.F. Ononda settlement.

A. [For figs. 1, 2, & 3, see Category 361, p. 41--Analyst]

Figure 1

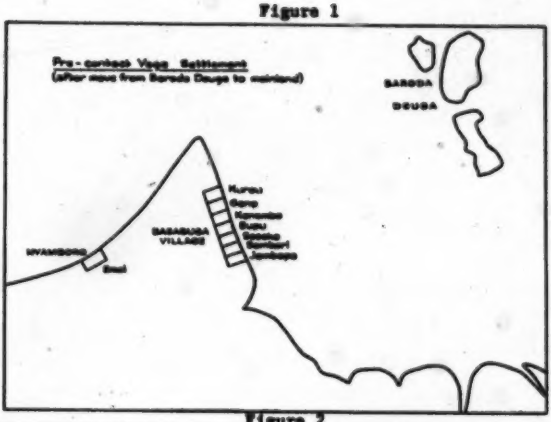

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Figure 2

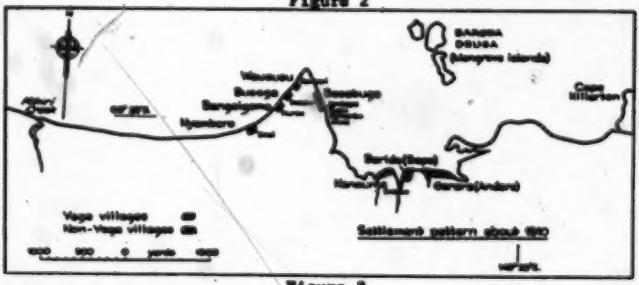
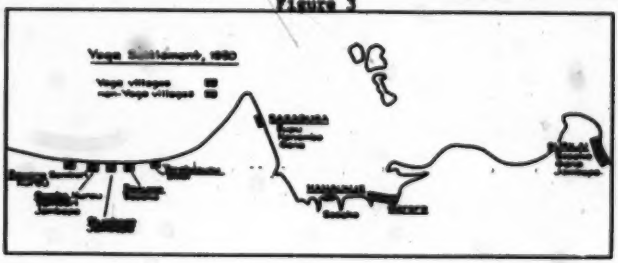


Figure 3



161 162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

361 166 242 245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed (423) hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.3). Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6).

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

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Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	H/S	Seseko	M
26	"	0	Beporo	Basabuga	Kupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

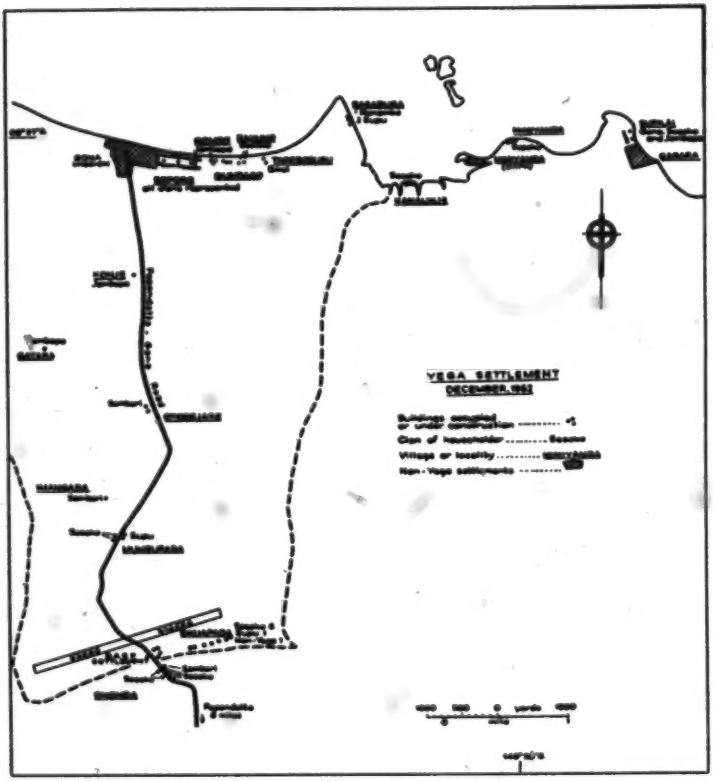
[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

[423] ** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[425]

10: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

Figure 4



102
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Figure 5

102
361
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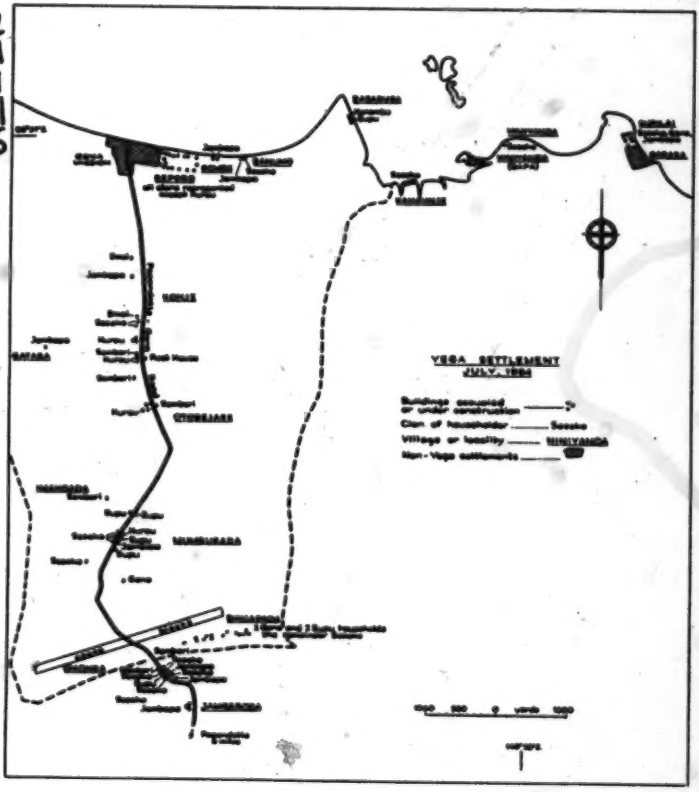

10: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda

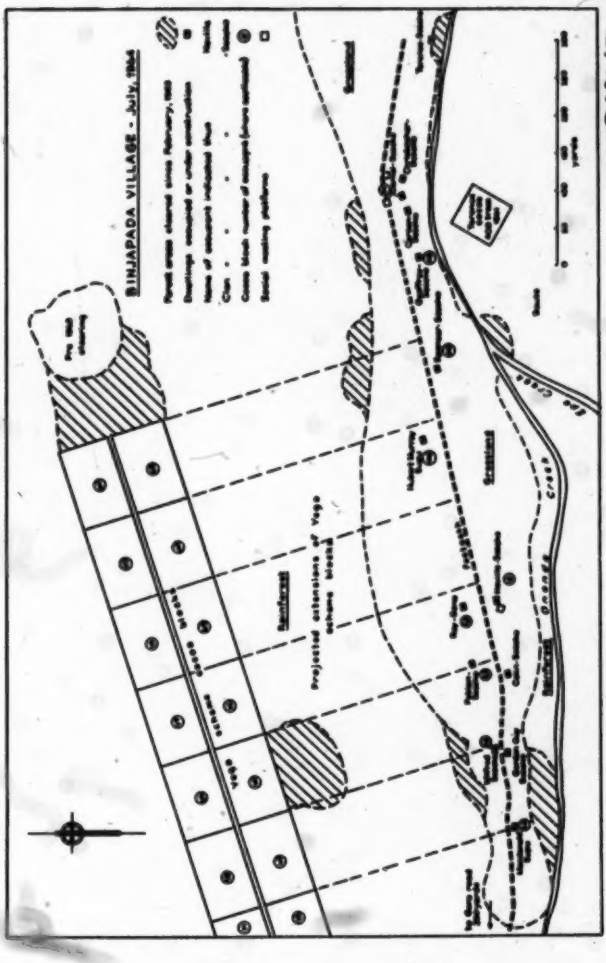
BINJAPADA VILLAGE - July, 1964
Projected extensions of Yega
Boundary
Boundary
Boundary

Figure 7

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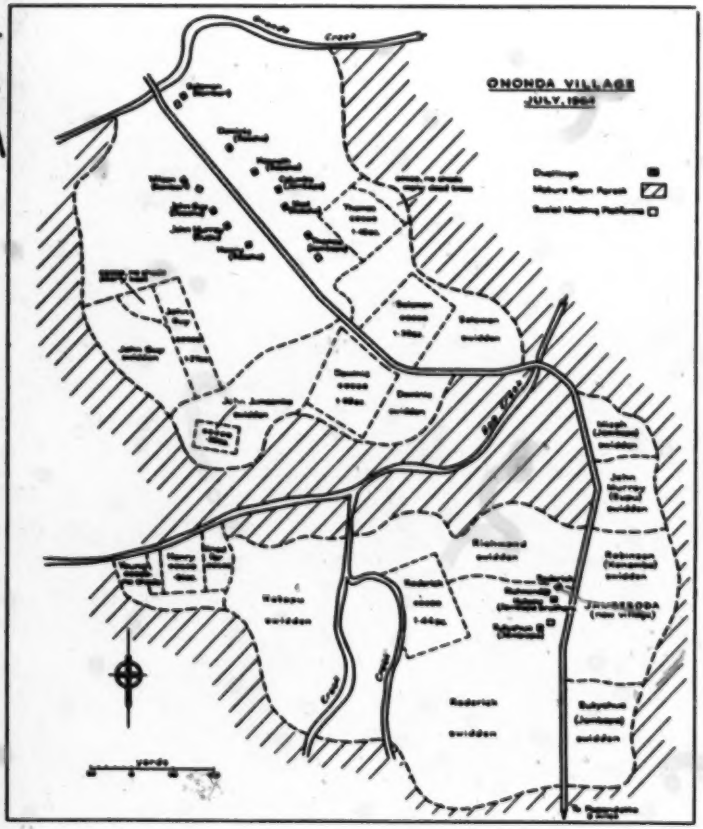
245
311
491



followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa blocks. After establishing their homes in Ononda village most of these villagers cleared rain forest in the Ononda area, thus establishing their cultivation rights to nearby areas of land. Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 All plantings were made on the south side of Ononda Creek in
423 the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 A large area of rain forest was cleared for food gardens in
245 addition to the cocoa blocks planted. Permission to clear was in
423 all instances given by the land controller, Nixon Kairembora.
[614] Swiddens were cleared by members of Sambori (1), Jambapa (5),
[613] Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 One instance of change of residence as a result of these new
361 clearings was noted. Three Jambapa brothers built their homes on
245 Jamberoda grassland near which they had cleared a swidden and
241 planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 In March 1964 a group of 23 Yega men, only one of whom had been
423 allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 The Berojou scheme differs in two major respects from the
423 earlier Yega schemes at Ononda. Firstly it was sited on land
614 over which certain clans, Jambapa and Kurou, had recognized rights
602 of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 496 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [247] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 361 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 214 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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(423) (iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

[433] (ii) the production of crops for sale;

[242] (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

[361] (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organisational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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423 The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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(423) The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

continues, a pattern of farmsteads set in consolidated, individual holdings may well replace today's villages and hamlets with their fragmented, widely-scattered landholdings.

Acknowledgments

This paper is portion of a wider study of Yega land use and settlement. The author gratefully acknowledges assistance and advice from colleagues in Australia, from officers of the Administration in Papua and from members of the A.N.U. New Guinea Research Unit. Field work was financed by research grant from the University of Sydney.

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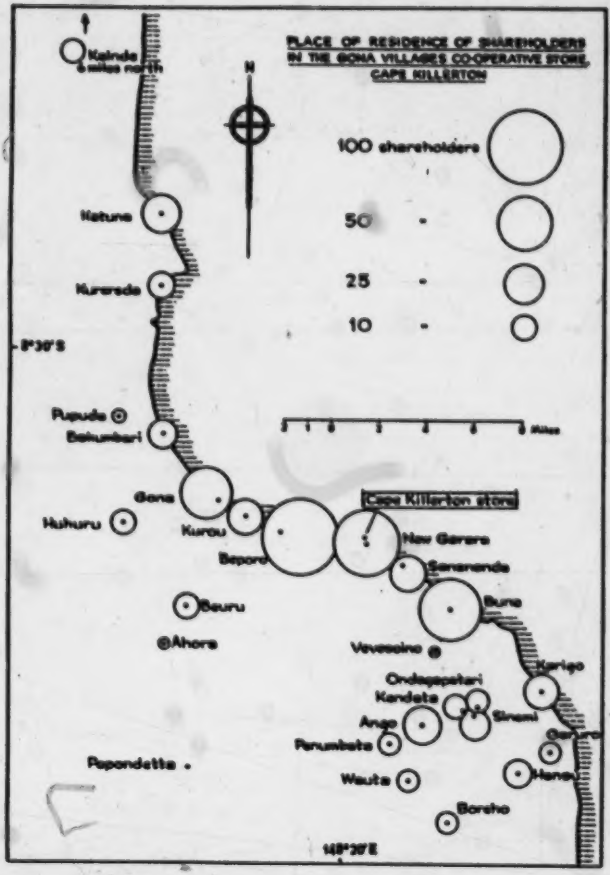

Note. At the time of joining the society Yega members lived in eight small villages but total Yega membership is shown as Bepora. In 1964 the Yega were dispersed throughout their territory in 17 localities varying in size from 30 houses to single homesteads.

12: Crocombe E-5 (1962) 1966 OJ23 Orokaiva OJ23
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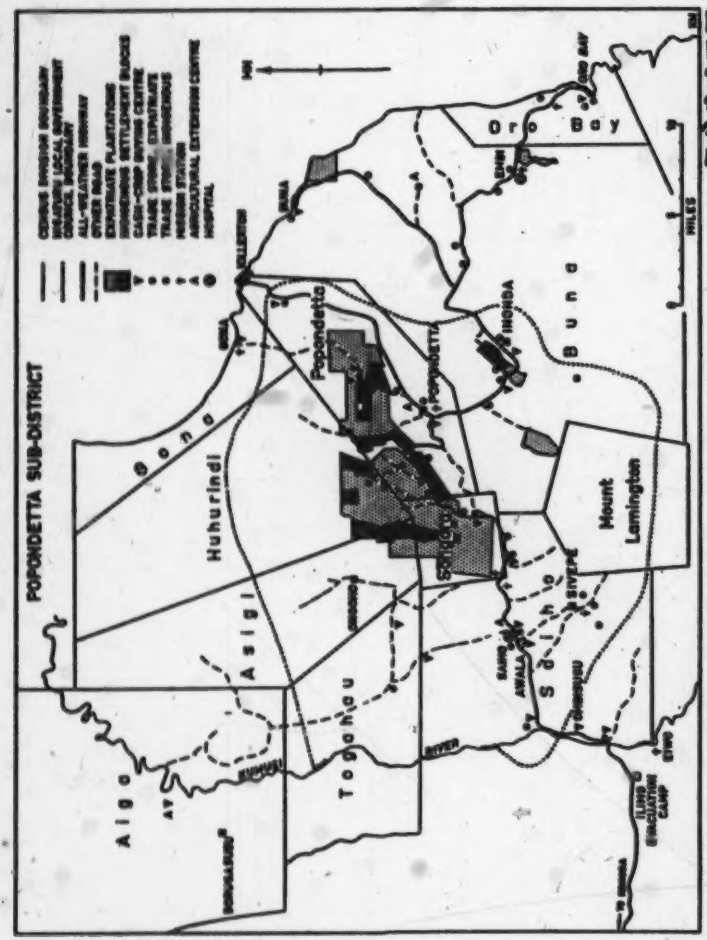

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13: Hogbin E-5 (1962) 1966 QJ23 Orokaiva QJ23
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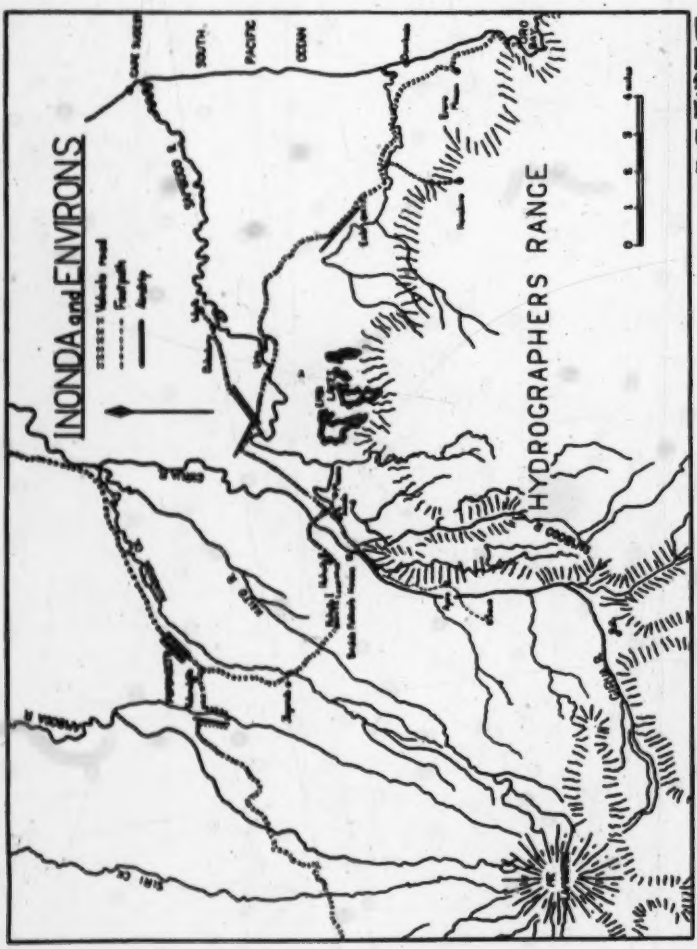

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inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha subclan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

14: Crocombe & Hogbin E-S (no date) 1963 OJ23 Orokaiva OJ23
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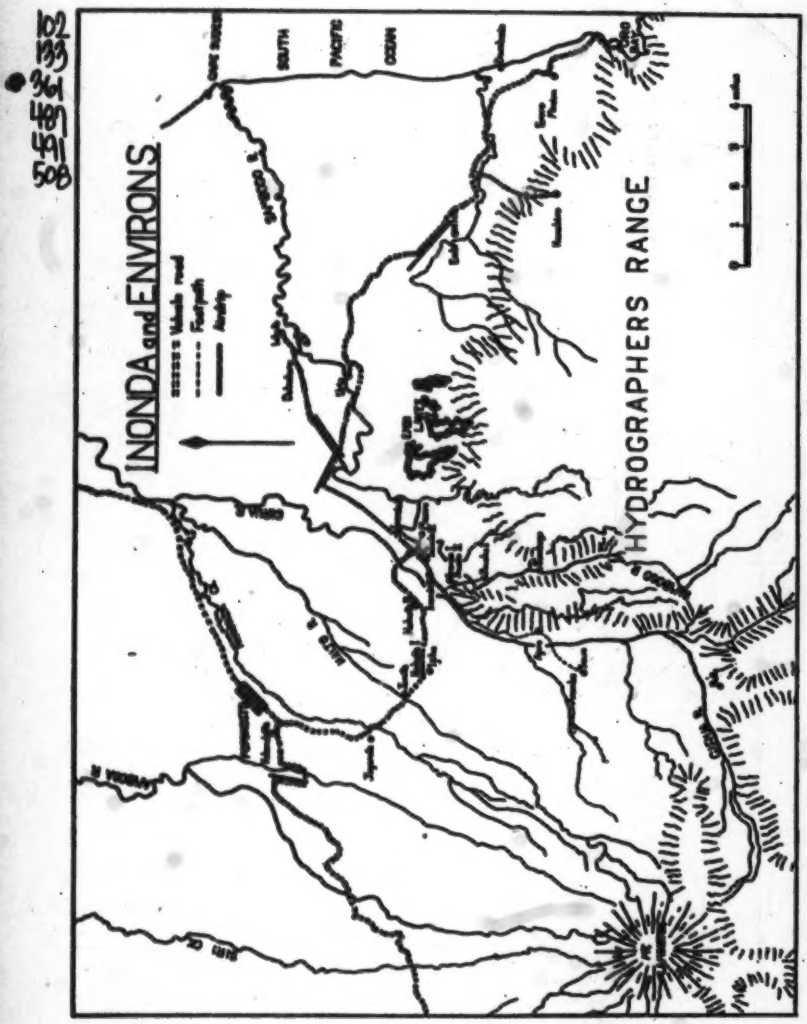

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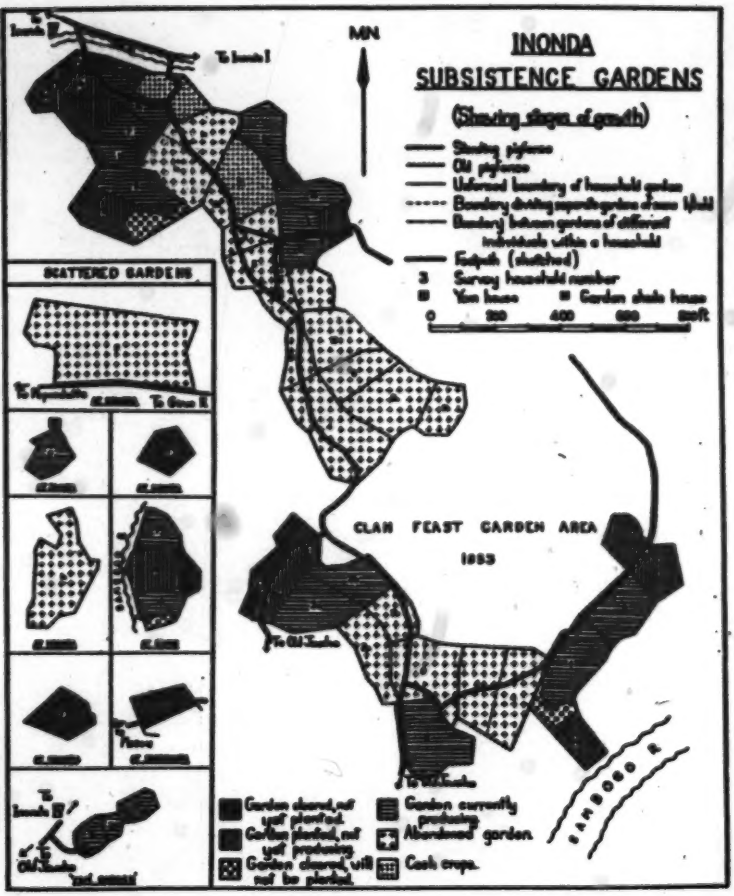

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
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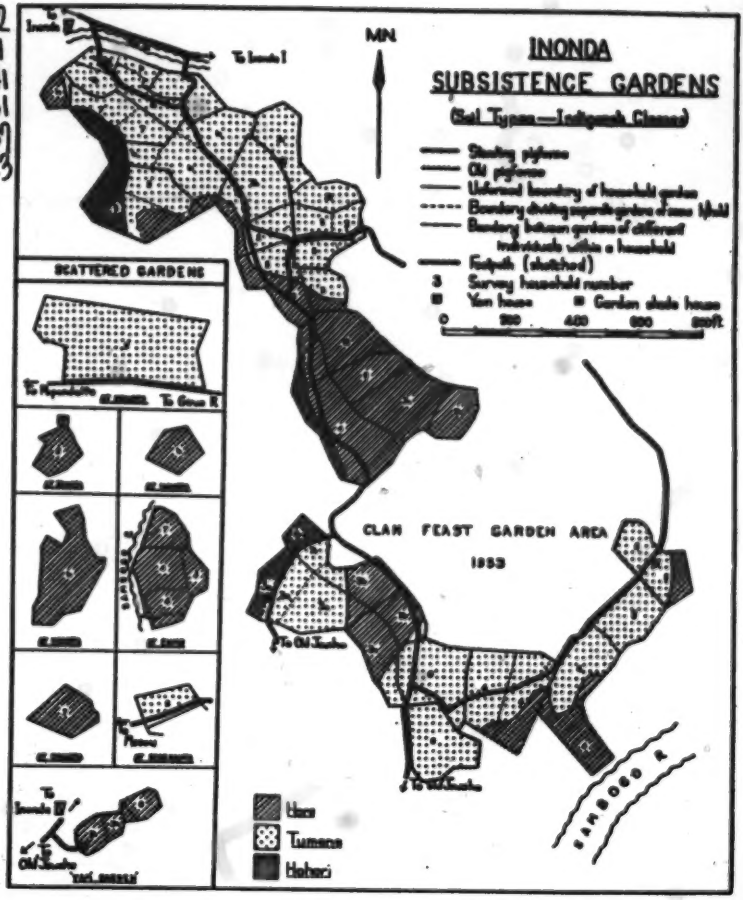

241 423 472 [427] it reverted to the Crown, C, as grandson of the main original vendor, regarded himself as having a right in the abandoned property. After some years of negotiating he now has a ninety-nine year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a [654] [426] resettlement block with a development loan of $1,500 that he decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 423 Few Orokaiva are short of land in the area east of Popondetta where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 472 184 The entrepreneurs appear to be more efficient food gardeners than many Orokaiva, for even though they average less time gardening (see Table 6), they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet comprising himself, his brothers and some of his married children. [592] The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda [361] is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were
[621] large, probably because clan members clustered together for mutual protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Post-war tenure innovations in the Northern District

659 654 423 The Higaturu Local Government Council land registration scheme, begun in 1956, was one of the earliest attempts to rationalise tenure in the Northern District and to increase agricultural productivity. Under this scheme all lands on which cash crops were being planted were to be registered by the Council after a survey by chain and compass. The individual in whose name the land was registered could transfer it or nominate heirs to it without reference to the clan or any other group. The scheme was superseded by the tenure conversion legislation of 1962-63.[1]

A second post-war tenure innovation in the Northern District was the Yega agricultural scheme[2] under which in 1960 a group of villagers agreed to set aside a portion of uncultivated land for use by individual members of the group. External boundaries were agreed upon and individual blocks were marked out and plotted. The 1962-63 land legislation has enabled persons holding title under native custom to convert to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963 and on 16 December 1965 fifty-six applicants from Yega were granted individual titles to blocks averaging ten acres in area (Smith 1965).

No conversions were made under the 1962-63 legislation until late 1964. Following a recommendation from the Land Development Board it was decided that conversion under the new legislation should be confined in the first instance to the Northern District in order to test and refine procedures. Applications for conversion were being received at a rate of over one hundred per month in the Northern District during 1965. At the end of December 1965, thirty-four tenure conversion schemes[3] were under way in the Northern District, covering 1,725 blocks (i.e. farms) and 33,566 acres. By 10 February 1966 Land Titles Commission hearings had been completed for five schemes, covering 219 blocks and 4,328 acres.[4]

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1 (continued)
361 themselves in small groups over the face of the country is growing in the land.' Feinberg (1956) suggests that the tendency to spread in this way is common in recently contacted societies.

1 For details of the Higaturu Council registration scheme see Crocombe and Hogbin 1963:89-96.

2 For a detailed discussion of the Yega scheme see Dakeyne 1965.

3 Each of which comprised up to sixty or more blocks (each of which would become one farm).

4 In addition, 120 blocks (3,148 acres) had been formally surveyed; 269 blocks (2,960 acres) were awaiting survey; and 596 blocks (12,370 acres) were awaiting investigation by officers of the Department of Agriculture.

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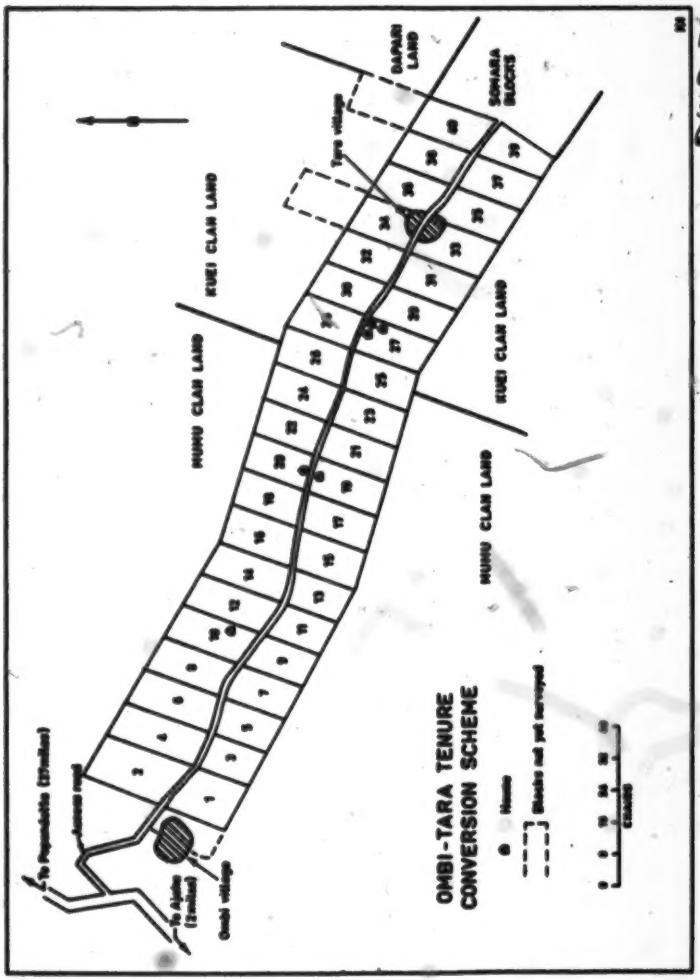

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Security of tenure

423 It is often suggested that the main benefit from tenure conver-
241 sion is the provision of security of tenure for villagers who wish
to plant cash crops. The Ombi-Tara people, however, did not con-
[182] sider security of tenure as a major benefit of conversion. They
[829] explained that each man had previously held individual rights to
land which were sufficiently secure for him to plant cocoa and
coffee. A man could plant such cash crops without consulting the
clan leader or other members of his clan, and without others
disputing ownership of the crop or distribution of the proceeds.
[578] Fourteen people did mention that conversion and the introduction
of cement and wooden corner pegs would help to prevent disputes;
but they felt the disputes to have been caused by the previous
small size of individual plots which sometimes made it difficult
for a man to extend his planting (because he would be encroaching
on another's land); and to vagueness of boundary lines. Some also
referred to the need to clearly mark out land boundaries to fore-
stall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 Most Ombi-Tara people saw consolidation of their previously
311 scattered holdings as the main benefit from tenure conversion.[2]
Many people drew finger diagrams on the ground to explain how
361 conversion led to consolidation. Under the traditional tenure
[829] system cash cropping involved long walks from village to food
gardens and to cash crops.[3] Consolidation not only reduces walk-
ing time, but also allows an individual to undertake large-scale
planting in a single area. He was previously unable to do this
because of the small amount of land he held in each plot, and in
some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to
361 all blocks and people are more easily able to help one another.

491 Paradoxically, conversion to individual holding of land appears to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Musu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Musu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

659 Since conversion the blockholders have each planted an average
423 of three and a half acres of high yielding rubber and some have
182 cleared a further two or three acres in preparation for further planting.

311 Most households are interplanting their food crops with the
241 rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

659 Those people whose blocks are closest to the village have tended
423 to remain in the village. Those with more distant blocks have
182 either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land
[361] close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
●361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

657 The Local Government Councillor presumed the Administration
423 wanted people to stay in the village. He said that he would prefer
182 to live on his block but would not move as he might be gaoled for
0361 doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 The land tenure system lies at the heart of social organisation
423 and 'may actually define the social and economic status of indivi-
182 duals in an agrarian economy' like that of Papua-New Guinea (Parsons 1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [198] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

Appendix B

The Ombi-Tara environment and population

131 Ombi village is in the Kokoda sub-district about twenty-seven
[133] miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 The Kumusi River flows close to the Popondetta-Kokoda road,
[361] about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 The nearest school is conducted by the Administration at Ajeka,
972 about two miles away. Most children of the appropriate age attend
[368] school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 The nearest trade store is at Ajeka but this is seldom open,
438 and most purchases are made from the store operated by a European
439 planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 The most important features of the climate are the generally
137 heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

000 rates of pay than do the plantations. There is, however, disagreement between the indigenes and the mining company regarding the future distribution of profits from the copper.

361 171 Although there is a marked similarity in the structure of buildings in the two areas, settlement groupings are dissimilar, partly because of topographical differences but particularly as a result of the recent changes which have occurred in the Yega pattern of settlement.

121 The third area of study, that of the indigenous community in Port Moresby, is distinct. It has been included because more and more village people, particularly young educated men, are choosing to live and work in towns and it is rightly recognized that, although the towns contain only a small fraction of the Territory's population, the people living in them are the most politically sophisticated, vocal in their dissatisfaction of their present status and, of all the country's inhabitants, most susceptible to propaganda. The distinction is made in this section between those indigenes who are the traditional inhabitants of the land where Port Moresby now stands, and those whose lands are elsewhere but who now live and work in the town. It is this latter group that is classified as indigenous migrants.

[P4-B)

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and hornbill beaks.]

THE YEGA OF NORTHERN PAPUA

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THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

139 The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

132 replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

175 The first reported contact between Europeans and Yega was during an expedition
177 along the coast by the Lt Governor of Papua,
799 Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission

177 school on Waususu Point in 1909. From this
464 time until the outbreak of World War II,
466 Yega men began leaving their villages to work [p.5-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

[P 7-B) NEXT CONTINUED ON PAGE 8-B]

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Fig. 4. Yega territory. Bagawa Village and school in foreground. Light grey patches are grassland; patches of mature rain forest can be easily distinguished from the lower secondary growth

[P.8-11]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

[P.12-A]

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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

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[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male

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614 members of a clan lived together with their wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare un-

361 doubtedly contributed. The movement westward along the beach continued until about 1930. People were encouraged to move by the

[657] increasing effectiveness of Government control
[791] and by the establishment at Gona Mission of a school and hospital staffed by Europeans.

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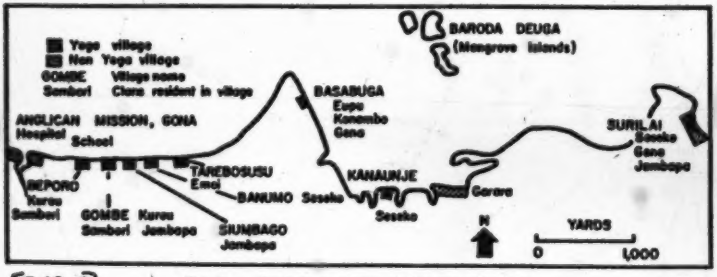

[P-12-C]

Fig. 9. Settlement pattern of the Yega in 1950

361 The new village sites also reduced walking time to the gardens.

618 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

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178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14]

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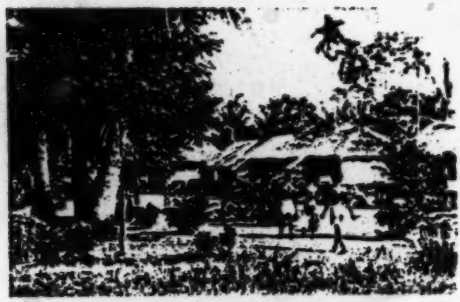

Fig. 10. *Scene in Bapore village. In left foreground are coconut palms. The tall slender palms behind the houses produce areca nuts, one of the ingredients of betelnut*

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Fig. 11. *The new village of Onanda under construction near the cocoa blocks five miles from the coast. (Picture taken in January 1962.)*

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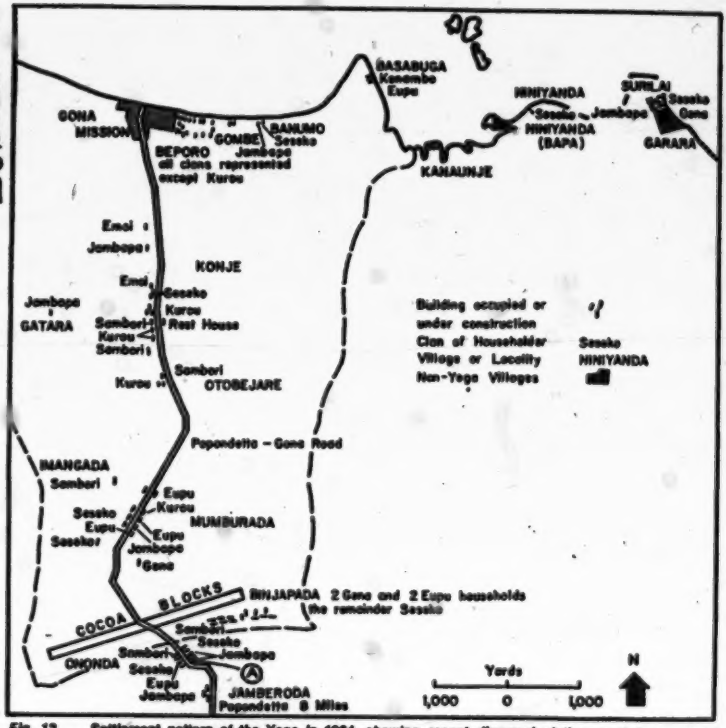

Fig. 12. Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11

[P.14-A]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P.15-B]

361 423 He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 458 [439] Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 178 The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

245 178 423 a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

461 [476] b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 177 Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being æsthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Bosiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

main road, or even facing each other on opposite sides of it. Although this is clearly the wish of the majority of the people, it does not suit all of them. There is some talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

The inheritance of land is mainly patrilineal; but a man may work his wife's land, and even, with the assent of her relatives, inherit a share in his mother's land. This means that individual members of a clan, instead of inheriting land jointly from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

At the time of my visit to the area in April, it was confidently expected that once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

PREFACE

[21] The following report presents data designed to be used in
"A Comparative Study of Cultural Change and Stability in Displaced
Communities," a project directed by H. G. Barnett. The report
follows closely a list of topics specified as variables in the
study. In a preliminary statement on the project, Professor
Barnett (n.d.) states the reasons why the Orokaiva, living on the
[731] slopes of Mount Lamington, were included in the project. In 1951,
Mount Lamington erupted, some 4,000 people were killed, and the
survivors were resettled under close governmental supervision.
This resettlement, as a consequence of a natural disaster, makes
the Orokaiva case comparable to the other 11 cases included in
Professor Barnett's study. The focus of our attention must
therefore be the social and other cultural consequences of this
government-sponsored resettlement.

[731] I should at once note certain differences between this
[101] Orokaiva case and most of the others included in the study. Mount
Lamington forms the centre of a rather populous district which is
[133] segmented into very small units socially and politically, but
which forms a definite unity in cultural respects. (See Map I.)
[361] Differences in language, social structure, political and economic
organization and material culture, in a wide area North of Mount
Lamington, and included in the Popondetta, Sohe Popondetta and
Saiho divisions of the Northern District, are so small as to be
almost insignificant. Only one of the refugee camps established
immediately after the eruption was outside this culture area, and
its occupants were shifted back to the Orokaiva district within a
few weeks. From that point onwards, people were no longer separated
from their culture but only from their land. As resettlement
proceeded, even separation from traditional land holdings was soon
terminated, so that the typical "resettled" village, though in a
different spot from the pre-eruption village, still had access to
the same land holdings.

[21] In these circumstances, many of the traumatic experiences
[731] which are the subject of the other case studies in this project are
not replicated in the Orokaiva case. There is no question, however,
about the serious social consequences both of the eruption and of
the large-scale government intervention that followed. To trace
these consequences at the present time is no easy task. As all
the Orokaiva returned to their own land a number of years ago, a
great part of this report is an historical reconstruction and the
Orokaiva are neither devoted nor accurate historians. Most
happenings are covered over in their memory just as the jungle
rapidly covers over past cultivations and past settlements. Some
songs, some myths, and the harrowing personal experiences remain.

that the Orokaiva explained these cases not by sorcery (as they regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

The government had long followed a policy of consolidating hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepe many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

On the other hand, there were several factors favouring such a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

either new or of far greater size than before the eruption. Some of these still exist today and still stand out by their unusual size. When one finds a village with a population of over 200, this is almost invariably (I know of no exceptions myself) a village set up near Mount Lamington after the eruption--either immediately after the eruption, such as the present Hamuni, Awala, Soroputa, Agenahambo, Koipa, or set up a few years later, when most of the restricted area near the volcano was made available for settlement, such as Hohorita, Kiorota, Bagavaturu, Kendata (see Table 2). These more recent villages are made up of people who, immediately after the closing down of the evacuation camps, were placed in resettlement villages such as Irihambo, Koipa, Agenahambo, Kongohambo and then resettled again closer to the mountain when this became possible. In all these cases, the unusually large size of the villages is due purely to government action.

The case of Sivepe, though atypical, may illustrate this. Before release from the Ilimo camp, it was arranged that the Sivepe people would be settled at Awala, which was on the main road and at a respectable distance from the mountain. The Awala people agreed to this; the Sivepe people agreed. Thus they went to Awala and the government intended that they should stay there in a large consolidated village. One of the two main clans now making up Sivepe expressed a strong desire to return home and, as Sivepe was outside the restricted area after May, 1951 (the boundary being at Kongohambo), no objection was made but the consolidation of Sivepe with another village was insisted upon. This did not bring Sivepe anywhere near the size of one of the major resettlement villages, but some measure of consolidation was achieved nonetheless. Here we see the operation of several administrative principles. First, we see the pressure towards large villages; Awala has 250 inhabitants even now; if Sivepe and other villages in the vicinity had been added to it, as had been intended, Awala would now have something like 600 inhabitants. On the other hand, Mr. Kaad, who administered this resettlement, evidently did not believe he should exert very strong pressure. He therefore allowed the settlement of Sivepe and several other villages between Sivepe and Awala. The one Sivepe clan which had stayed behind in Awala in 1951, returned to Sivepe a year later.

We may therefore distinguish two types of post-eruption settlements: (1) very large villages created with government encouragement; (2) medium-sized villages (generally still larger than pre-eruption villages) created with government connivance. What were Orokaiva attitudes to the necessity of this kind of relocation? I find this question hard to answer because the term "necessity" (employed in the questionnaire to which this report is the answer) does not fit what I understand to be Orokaiva logic. Settlements such as Irihambo, Awala, Kongohambo were certainly regarded as "necessary" for the mere reason that the government

657 (or in the case of Irihambo, the Bishop) had decreed them. Had
361 these people been Westerners rather than Orokaiva, they might have
731 asked themselves the question whether the decision of the government to prohibit the Kongohambo people, for instance, to go and live further East in their old villages was a reasonable one. However, there is nothing self-evident in the asking of such a question. Criticism of an administrative decision is, i.e., a calculation of probabilities, fiduciary responsibilities and expediencies. For the Orokaiva, the problem was not whether the government decision was a "necessary" one, but rather: what was the most advantageous action they could themselves take in the circumstances. The advantages of going back to their old village sites were obvious.
[784] But these were clearly outweighed by two grave disadvantages: first, the probability of punishment by Australian authorities and secondly, the chance (to which I shall refer in detail later) that the whole eruption might have been a punishment by the Christian God for their earlier disobedience to government and Church demands, and that further disobedience might elicit a further eruption. It seemed foolhardy indeed to challenge both the government and the mountain at the same time. In this sense, we may confidently say that the Orokaiva felt the necessity of relocation.

133 Sivepe lies on an altitude of 1,300 feet, seven miles from Mount Lamington. Although the mountain rises to a height of 5,634 [361] feet, most present settlements are on the lower slopes, rarely very much higher than Sivepe. A wide range of annual and perennial [241] crops, including taro, on which the Orokaiva depend, do not grow [731] well at altitudes much above 1,500 feet. Thus, the eruption has had no appreciable permanent influence on the location of village [361] sites. The restricted area is at present a circle of two miles' radius from the crater of Mount Lamington; there are not now, nor were there before the eruption, permanent settlements closer than four miles from the crater.

The Sivepe terrain (if I may borrow the terminology of the CSIRO report) is characterised by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepe (see Map III) is on a soil association of the Awala land system which has an 8 to 12 inch very dark brown topsoil. Chemical tests suggest that these loams are fertile, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 [823] to 22 inches in depth. Rimoldi points out that this dominant soil type, which the Orokaiva call mume (a word whose principal meaning is night, darkness), is only one of five found in the district and distinguished by Orokaiva by colour, texture and moisture. The others are hohori (red), which is popular for cultivation if it is not sandy; gindiri (stony, with high sand fraction); pusu (clay) and pegara (swamp). Mume is the most widely used soil for gardens.

133 In contrast, Inonda (see Map IV) is no more than 200 to 300 feet above sea level. It lies partly (to draw on the CSIRO report again) on the flood plains of the Girua and Sembogo rivers and partly in the moderately sloping foothills of the northern side of the extinct strato-volcanic Hydrographers Range. The Sembogo and Girua Rivers flow in a northerly direction draining from the Hydrographers Range and Mount Lamington respectively. They are swiftly flowing, rocky-bedded rivers which, together with their numerous tributaries, give the area a moderate to good drainage system. To the east the drainage system in the vicinity of the Embi Lakes has been blocked by recent volcanic activity and drainage is much poorer. A vast coastal plain between 20 and 30 miles wide stretches north-westwards from the Hydrographers for over 60 miles. Inonda lies at the southern end of this plain, about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of five soil associations listed in the CSIRO survey: (1) the Popondetta Association, with black to very dark topsoil underlain by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relation- [578] ships and social relationships outside the village. The first of [628] them, in 1952, seems to have been precipitated by a quarrel between the Timunu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a 361 superfluity of reasons. Rimoldi was told of almost all the shifts 657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths attributed to sorcery and because of quarrels between neighboring 361 villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his [764] ghost. The population of this village shifted to nearby Hohorita, a move which was in any case favoured by the government. A reason [715] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens,
241 these seemed to be predominantly in the Northeastern part of the
311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepe is again in that area.

Inonda experienced three shifts since the eruption: first
731 to the vicinity of the airstrip (1951), then to the village
361 described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

While the layout of Pamba was traditional--with the houses
361 close together and little space between the rows--both post-eruption
657 settlements of Sivepe and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend to belong to different clans. A modern village will contain, in
[364] addition to residences, privies for each family, while some have
[345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete
[575] which the Americans laid down during the war. Sivepe got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including
[591] Sivepe, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepe villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing
657 standards, village sanitation and roads. We find Wilfred Beaver,
364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

Kumusi Division in which both Sivepa and Inonda are situated. It would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922: 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

Beaver, in the report already cited, sets out his concept of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

The Pre-contact house was invariably built with a pig enclosure so that man and pig spent the night together. The Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under the houses, or elsewhere, as they wished. Since the Local Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepe was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

Belshaw makes the following remarks about village development: "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

three sides of it. (Administration) attempts to introduce such villages in the Higaturu sub-district had largely failed and the standard of housing was much lower. Further, the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their houses in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing" (1951: 245).

At the time of Belshaw's research the only resettled areas were those West of the Waseta-Sairope line, and the villages Belshaw visited appear to have been in the Sairope area. As it turned out, the Kokoda village plan was in fact adopted in a great many villages in the Higaturu sub-district, though by no means as an immediate result of any decisions that may have been taken at Ilimo. In the Sivepe area, it seems clear that the people's first plan was to return to Pemba and only when Pemba became uncomfortable, partly through quarrels, partly through damage done by the eruption and partly through administration pressure, did they decide to build a new village in the new style. Within a radius of three miles from Sivepe, there are still a considerable number of old-style villages even today: Hamburata, Carombi, Torogota, to mention only three larger ones. Others, such as Duve and Bindute, were beginning to adopt the new style only around the time of my visit in 1966. In 1951, only those villages in which the government took a strong direct interest, such as Awala, Kongohambo, and the villages visited by Belshaw (but I could not enumerate them all) adopted the Kokoda style.

There is also a minor incompleteness in Belshaw's data when he refers to the neatly clipped grass and the rows of houses as being innovations due to the Kokoda influence. The neatly clipped grass was in evidence in 1906 and the regular rows of houses were reported by F. E. Williams (1930: 68). This was, admittedly, reported as late as the 1920's but the layout is consistent with the less explicit descriptions of Orokaiva villages given by Walker (1901) and by Monckton in his descriptions of his battles with the Dobudura and Sangara. The novelty of the Kokoda plan lies rather in the wide central field, the house design and use of materials, and the sanitation.

Undoubtedly, credit for the introduction of the plan must be given to the Ilimo experience but the spreading of the plan over the majority of Orokaiva villages must rather be ascribed to the growing influence of the Local Government Council in the 1960's.

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Avala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepo. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
● 361 following it, both Sivepo and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepo villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepo people in Awala. It seems that the Sivepo people did stay in Awala for three months, after which the Jegase and Timunu clan groups received permission to return to their land in Sivepo. The third Sivepo clan group, Seho, stayed on in Awala, but planted gardens in the Sivepo area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepo. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. Now this danger did not come from the other Sivepo clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepo people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Belshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

with some knowledge of anthropology. All these authors, following F. E. Williams, had the impression that Orokaiva clans are corporate groups and that the local clan groups are segments of these. Thus, Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Hunumi in a later chapter.

The closely allied villages, therefore, are not only a source of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoga or Kendata could be found for such a service.

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 The mission at Sasembata formed a kind of community of its own.
361 From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

875 It was traditional for villagers also to supply teachers with
425 land for growing taro. At Sasembata, the mission found it hard to
797 get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely
[731] Papuan. The eruption led to no defection but to a strengthening of
[784] the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst.]

CHAPTER VIII: Selection of Emigrants

731 At the time of the eruption, the whole of the population fled from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

621 657 Recruitment to these villages was therefore non-selective and by government order. The amount of land available at the new location and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Kaad that they wished to form a village together, Mr. Kaad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

361 [628] When self-selection of resettlement sites occurred, the following were among the reasons for choice, as is demonstrated from evidence at Sivepa and Hohorita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hohorita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepa, we witnessed the exodus from Avala, because of land problems; the exodus from Pamba, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garoubi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garoubi, the links are far more complex and will be discussed under the heading of "Internal Influences."

621 The village group was the organisational unit of settlement. No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

PART II: INTERNAL INFLUENCES

CHAPTER I: Size and Distribution of Relocated Community

Section 1: Statement of the Problem

121 This report is intended to answer one general problem: what has been the effect of collective evacuation and resettlement upon one Orokaiva community ((Sivepa) directly affected by the eruption of Mount Lamington. In order to establish this effect, we are studying Sivepa as well as a control community (Inonda) that was not evacuated and resettled. In the first part we have made one assumption which obviously can never be accepted without question and which, in fact, we shall find to be partly false: namely, that the two communities can be regarded as homogeneous. We have tended to speak of "Sivepa" and "Inonda" as though internal variability could be ignored. At the same time, I did stress at various points that I thought one of the differences between Sivepa and Inonda might be that in Sivepa acculturation had proceeded relatively homogeneously whereas in Inonda the range of variation was wider.

A hypothesis of this sort can be tested only by a systematic study of internal variation in the two communities. In this and the following chapters I shall introduce a number of classificatory principles, commonly used in social anthropology. After classifying individuals in Sivepa and Inonda by these principles, I shall be able to compare the two communities in respect of internal patterns. The first principle to be chosen is that of spatial arrangement. Closely associated with this are the principles by which the Orokaiva themselves view their communities as subdivided into bounded social groupings. My procedure will be, first, to state what are the Orokaiva principles of classification, which apply to both communities alike. Secondly, I shall set out how the two communities under consideration can be classified according to these principles and in what respects they exhibit similar or dissimilar patterns. Where patterns are dissimilar, an explanation for the differences will be attempted and I shall consider whether the post-eruption experiences may have been a factor.

Section 2: Spatial Arrangement

121 0361 The Orokaiva concepts connoting residence units that may be found in a village are mainly three: da--village, banda--house and

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[384] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bande, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivepe, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[177] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, with a slight
628 decline in population (to 45 in 1962 and 41 in 1967) and a decline in
the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
abandoned now. Although these two da were less than a hundred yards
628 apart, they were still two socially distinct units. It sometimes
happens, as in the case of Hohovita, to which I shall return, that
two such contiguous villages are later joined together into a single
one, but this is a deliberate act, involving the slashing down of the
intervening brushwood and, ideally, also the removal of houses which
would run through the centre of the combined village. If Sewa people
had taken up permanent residence in Inonda, such fusion would have
occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
further than about 1948 when the village Pamba was built, combining
361 an older Sive and a now defunct village Pusahambo. The census list
current at the time of the eruption still shows the population of the
[162] two villages separately, though in fact they had already fused.
(Sive 58, Pusahambo 41) I do not know how many residential units there
were then, but in Old Sivepe, in 1962, 23 were counted, plus one
belonging to the anthropologist. At that time, the population was
120. When I arrived in Sivepe, the new village was only partly
completed. Some people lived in new houses; some had not yet built
or finished their new houses, but had shifted their old houses from
the old to the new village. Others again were still domiciled in the
old village, but had declared their intention to start building in the
new one "soon." At the time of my arrival, six of the houses in the
old village were still inhabited; nine months later, this number had
dropped to three, two of the houses being inhabited by widows living
alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number
of the village pigs were still being kept in the old village (these
animals being rigorously barred from the new one) but by the end of
my stay, these pigs had all gone to the bush. New Sivepe, at that
time, had 25 dwelling units, plus the one rapidly nearing completion.
The total number of dwelling units included in the study (28) accommodated
137 people. There was occasional discussion of further increments in
the population, as families from Garombi were considering moving in
and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the
village plan that was regarded as ideal. In Old Sivepe 18 out of 23
houses were arranged around the araha in standard fashion, while another
five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The
land on which Old Sivepe was built was lent by three individuals from
different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other
hand, the five houses built outside the village proper were all on
land owned by the residents. Though some of these houses were as
much as four chains away from the village proper, they were still

361 conceived as part of it, (People spoke of the residents as living "in Sivep," not "in Orinasusu.")

In the new village, the number of houses built outside the regular rectangular plan was even larger. Of the 25 houses, only 14 were strictly where they were supposed to be; a further three dwelling units might be considered "in line" if the term were used very broadly, but eight formed a line of their own, roughly parallel to the two planned rows, with doors facing towards the arsha. This line was on more elevated ground than the rest of the village, and about [182] two chains behind the nearest planned row. The decision of all these householders to build outside the regular rows is in part explainable by features of the kinship structure, to which I shall refer later. We should not ignore, however, certain historically and psychologically determined attitudes which resisted the regular village pattern. In this connection it is significant that in only five out of 11 cases the irregularly placed houses were built on land to which the occupants had some special claim. Houses that were out of line were at first all of much lower standard in size and construction.

Because of the very close scrutiny the inhabitants of a village give to one another, as well as the numerous regulations that are now being enforced in villages, Orokaiva feel the threat of regimentation implicit in the large resettlement villages. Even the small distance of two chains provides a valuable measure of detachment for people many of whom used to live in much smaller villages and managed to evade most of the modern regulations. One man ceded to pressure and built a house in the "line" in which he placed his daughters-in-law and their offspring but he stayed in the old house on the hill. There was much criticism too of the unwillingness of one man on the hill and the owner of the detached house No. 8 to clear the tall weeds between their houses and the rest of the village. I feel sure they let these weeds grow with the specific purpose of emphasising the distance. It was generally agreed (and confirmed by Mr. Waddell's data) that these two men were among the most diligent gardeners in the village, so that "laziness" provides no explanation.

[342] A further dimension of freedom is always available to Orokaiva by the institution of the "garden house." A garden house is a rough shelter where people can sleep in the heat of the day while they are at their gardens. Some garden houses, however, are good, sound structures suitable for semi-permanent residence. Sometimes people stay at them overnight, sometimes for several nights in succession. This is done at times when there is a great deal of garden work urgently needed; by staying at their garden houses people save time and avoid distractions. It is also done when there has been a quarrel and people like to stay out of sight for awhile; finally, it may be done simply for reasons of privacy. Some men stay at garden houses far more frequently than others. One Sivepe man is staying there constantly and has no village house at all, nor did he have one in Old Sivepe. Generally, stays of more than one week at one time are most unusual. Most people never stay away for longer than one night.

361 Comparing Inonda and Sivepa, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepa shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 Within a village, two kinds of kinship group larger than the
592 elementary family may be distinguished, namely the javo wahai (clan)
616 and the hae (lineage, or plant emblem group). We may also distinguish
two kinds of residential group, the occupants of a bande or side and
614 of a bande or house. On the nature of the clan I shall be brief here,
reserving detailed documentation for my doctoral dissertation. It
seems to me mainly a political unit, held together by--in some but not
all cases--belief in common descent from a single patrilineal ancestor,
by the common name (javo) by which they call themselves and which they
call out when slaying an enemy or a pig or in other moments of great
stress, by the recognition of obligations towards and claims upon
others who bear the same clan name. Rimoldi (1966: 33) is right when
he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used
to denote collectively all persons sharing the same plant emblem.
The clan name (javo wahai) is transmitted only patrilineally, but the
transmission of the hae is more complex. A person regards his hae,
which may be any plant or part of a plant, or another natural substance,
as a part of his own identity. He may respect it in the manner of a
totem but such avoidances seem always to have been to some extent a
matter of personal choice. (Williams, 1930: 127-218) The hae is
used in a number of social contexts as a mark of identity. Williams
seemed to believe that a hae was the distinguishing mark of a clan,
but later investigators (Crocombe and Hogbin, Rimoldi) take it to be
the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

614 affiliations has changed. In 1962, when Rimoldi did his survey of the
621 community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had
[731] been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

361 One striking characteristic of the village layout of New Sivepe
614 is that all the Seho houses are grouped together on the same bende
616 while the other bende of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss
[582] under the term "diametric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two
[601] sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

361 villages (Garombi, Soroputa, Hohorita). When New Sivepe was built it
614 had become a familiar procedure and was simply copied from other villages.
616 It is an interesting adaptive institution, and the Orokaiva answer to
[177] Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepe but by no means in all the villages.

614 Rimoldi classified the Jegase clan into four lineages (Berekipa,
613 Seseuopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He further distinguished two Timumu lineages (Hajejopa, Pekuma), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

621 Inonda, in the same period, has developed in the direction of
614 a one-clan village. In 1951, out of 12 households, eight were of the Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepe, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
754 walk from Sivepa, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
always a dangerous one; the calling down of spirits with bullroarers
782 in preparation for a feast (viz. Williams) was also, according to
178 Sivepa informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

CHAPTER X: Esprit de Corps

621 731 The problem of developing group consciousness in a new village, created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepe in 1966, though on a much smaller scale. Sivepe, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial [361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in G rombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 [431] In the daily presentations of food between residences, these families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange [578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 684 On the other hand, the hazards were obvious when one looked at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

621 Naturally he was angry that his wife had been molested; his younger
684 brother who was rather fiery and quick to fight, was angrier still.
They both found themselves isolated as the kinsmen of the assaulter
took the opportunity of expressing their heart-felt views about the
two brothers, especially the pugnacious one who had successfully raped
a young Seho woman earlier that year. Both brothers said they would
go back to Binduta and the younger man actually did so. This shows that
their position in Sivepe was still somewhat unstable.

657 One of the objectives Sivepe had during the year 1966-7 was
621 to win a prize for the most improved village. This prize was awarded
by a committee of councillors and paid out of government funds. The
● 361 eagerness to align all the houses in two rows was partly due to this
desire to win the prize, though this was not the only motive. In
these circumstances, it was certainly evidence of esprit de corps to
fit in with the village plan and the objective of winning the prize;
it was also evidence of a lack of esprit de corps to ignore the village
plan altogether and build houses of inferior design in places where
they were extremely conspicuous. Yet this is what the immigrants from
Carcubi and Binduta did. Lawrence, and the others who were keen about
village improvement, accepted this situation with much tolerance,
though Lawrence did go up to the Carcubi houses one morning to talk it
over. No doubt he received assurances that something would be done;
the discussion was amicable enough. Yet this instance shows that the
amalgamating of villages poses organisational problems which place a
burden upon everybody: upon the old residents who must be tactful
and upon the new arrivals who will long continue to feel insecure.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepe and Hohorita

731 123 My subject of study obliged me, both in Sivepe and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepe, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pejetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

731 [165] In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[1] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop'd purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. [621] It was the people who chose the site for the village; the Bishop hoped [361] that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people [425] nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

425 657 The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

trespassing there. Bishop David recalled, in my interview with him, how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which several groups set up new villages independently. Today, the population of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Ssembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the Sangara people had become rather rapidly acculturated. By the criteria used in the present study, acculturation had progressed rather more rapidly than at Sivepe, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepe: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

It was the general hypothesis of this comparative study of ten displaced communities in the Pacific that displacement would lead to accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the relocated community but lacking the experience of relocation. In the case analysed in the present report, the experience of displacement at Sivepe was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A [See Cat. 116, p. End Map 12--Analyst]

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepe) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepe, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepe. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
161 350 live in Hohorita and the rest in the three other villages. The total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepe, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[1] developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission

A [See Cat. 116, p. End Map 13--Analyst]

621 station. The Horeopa leader, who was the owner of this land, then
● 361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they [769] who filled the gap between the rows. The councillor had long been at [775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was [231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees [245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee [166] was normal. Young trees were also being planted at a much faster rate. Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

● 361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant
[161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sonbou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found.
[597] Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages
[423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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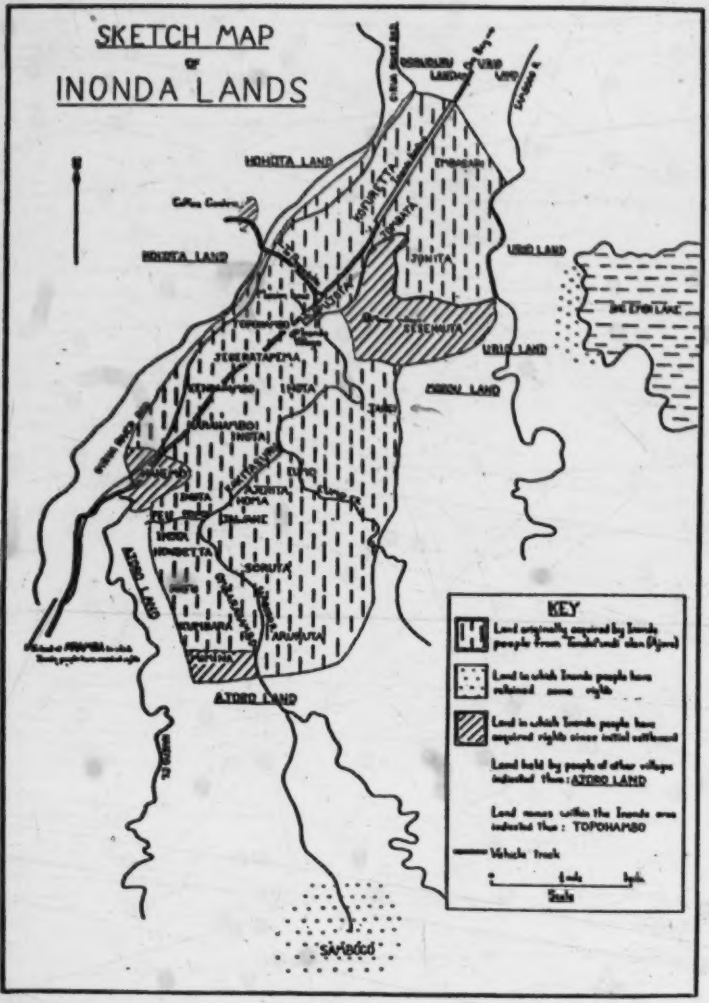
Map III

Source: Rimoldi 1966: 82

[End Map 3]

MAP IV



Source: Crocombe & Hogbin 1963 : 105

[End Map 4]

102
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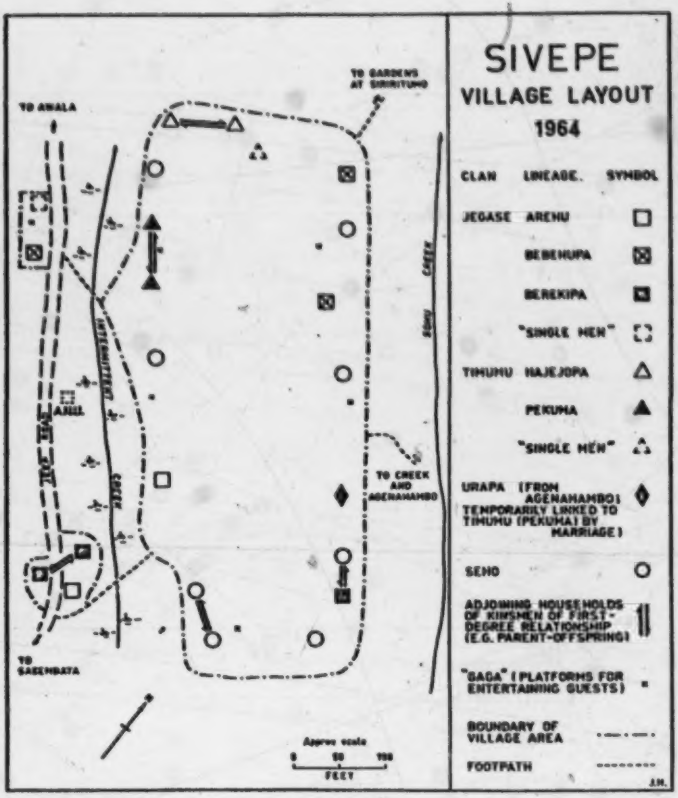
Map V



Sources: Waddell & Krinks 1968: 38

[End Map 5]

Map VI
Plan of New Sivepo

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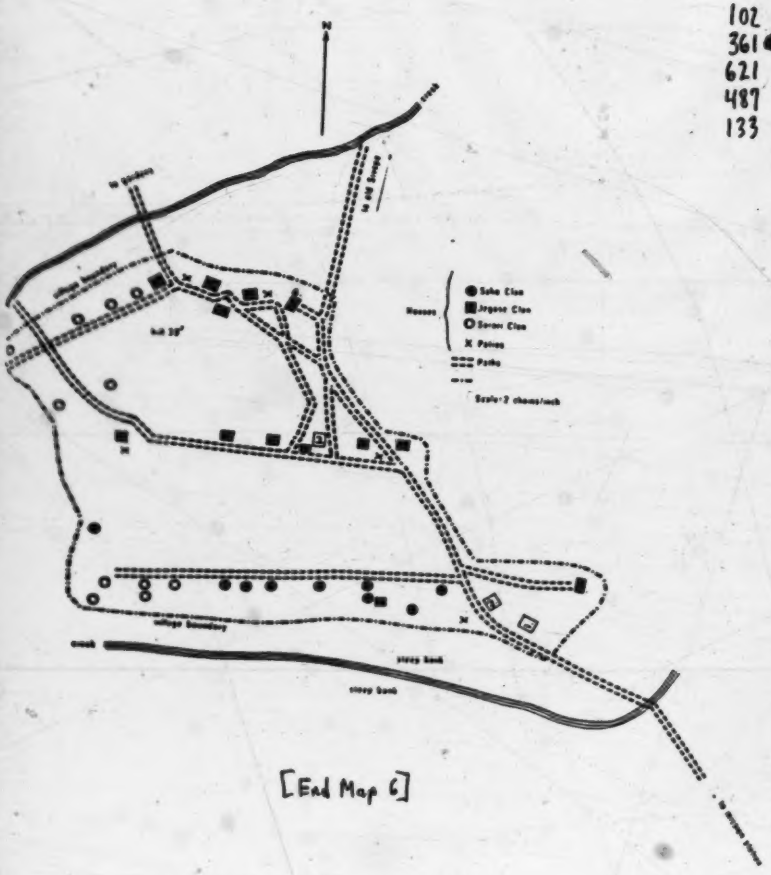
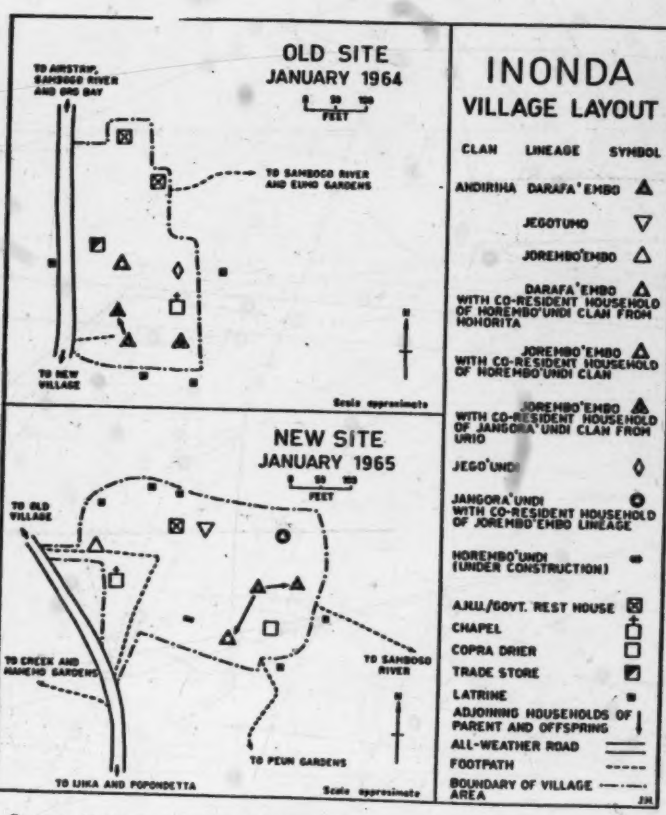


[Ed Map 6]

Maps VII and VIII



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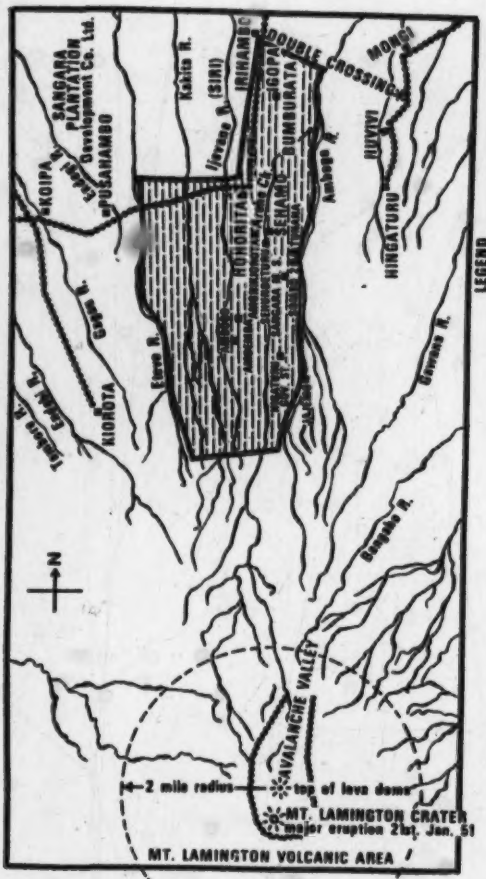
Source: Waddell & Krinks 1968: 54

[End Map 7]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington



Map XIII

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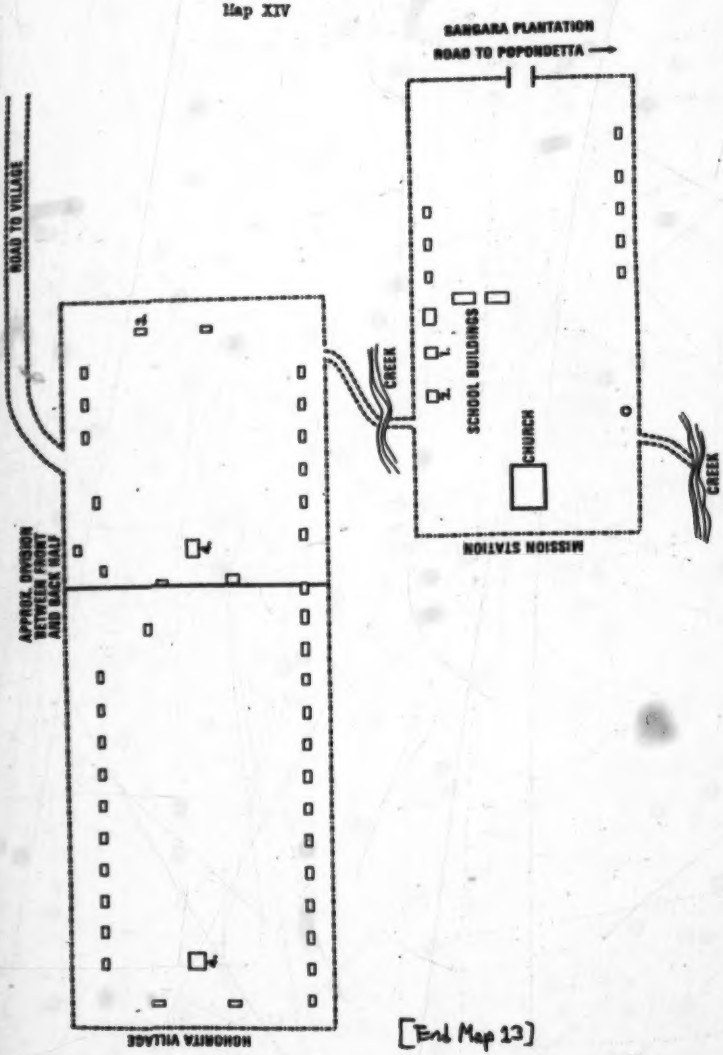
[End Map 12]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map XIV



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[End Map 13]

These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Orokaiva worked their hamlets and gardens high up on the rich soil of its sprawling flanks, achieving perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higaturu.

The first eruption came on a Sunday morning after three anxious days of earth tremors during which official and Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good-

2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

133 eruptions has subsequently continued, and reports as of De-
731 cember, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

731 An observer passing through or flying over destroyed areas
24 was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organized to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

731 Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. Those groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

731 By that time, too, a whole series of policy problems had
657 arisen which both the field staffs and the Australian author-
177 ities at Canberra and Port Moresby were trying to resolve. Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The generally monogamous family units are under the "immediate authority of the father," while the affairs of the local living units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually hostile and resistant to whites. Women were often seen accompanying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes as the result of a "quarrel and the fear of retaliatory magic," but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

Williams and others judge that with the modern pacification, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influence. Over against this greater dispersal, the people have

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement co-operation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona,* or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic,* Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal,* 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamington slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualized bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallized opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organized Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

731 [231] problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

[857] [799] 5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a [799] complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. [178] As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

731 361 On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

731 799 The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a [875] Mission hospital at Oro Bay. "Native" Papuan Mission [872] teachers started elementary vernacular schooling in the camps.

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis,-and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being aesthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Bosiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepe. The changes found in New Sivepe are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[182] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepe if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower

177 at Sivepe has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepe growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

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621
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Map III

Source: Rimoldi 1966: 52

[End Map 2]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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613
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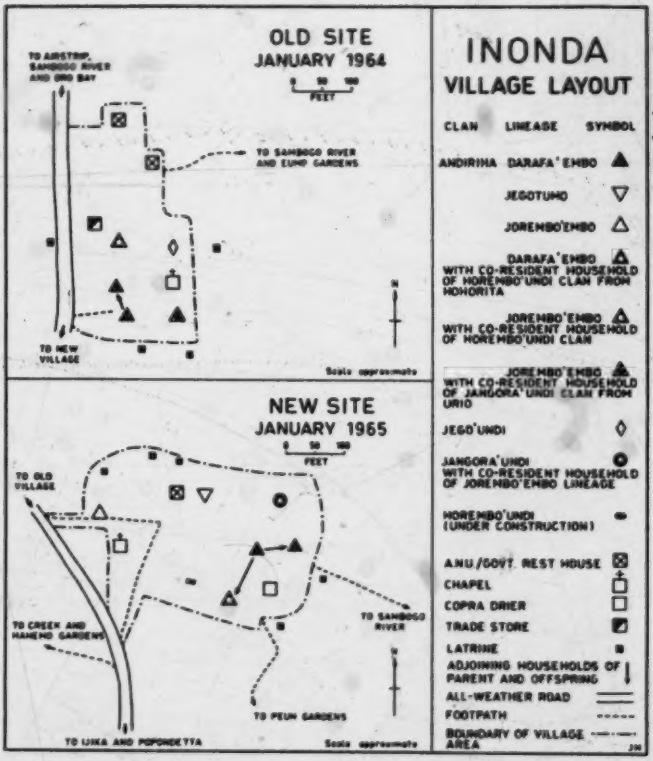

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion.

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers.

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361 cultivating gardens that are more than a mile or so away from his village.

241 311 When Rinoldi made his careful notes of cultivated gardens, these seemed to be predominantly in the Northeastern part of the village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepo is again in that area.

731 361 Inonda experienced three shifts since the eruption: first to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 659 While the layout of Pamba was traditional--with the houses close together and little space between the rows--both post-eruption settlements of Sivepo and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend to belong to different clans. A modern village will contain, in [364] addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [575] which the Americans laid down during the war. Sivepo got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including [591] Sivepo, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepo villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing 657 standards, village sanitation and roads. We find Wilfred Beaver, 364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

Kumusi Division in which both Sivepa and Inonda are situated. It would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922: 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

Beaver, in the report already cited, sets out his concept of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

The Pre-contact house was invariably built with a pig enclosure so that man and pig spent the night together. The Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under the houses, or elsewhere, as they wished. Since the Local Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepa was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

Belshaw makes the following remarks about village development: "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

177 Housing and village improvement: The changes in this aspect of culture
are capable of fairly precise description, which has been provided in
Table 10.A This table applies to Sivepe only; I shall refer to some
minor differences between Sivepe and Inonda at the end of this section.
335 The changes may be analysed into several main types. First, there is
412 the extent to which European materials and tools are used. Here, we note
177 that nails were a building material as early as 1951 (and therefore
also hammers), but a significant change has been the extent of their
use. The introduction of nails was partly a time-saving device, as
framing can be efficiently lashed together with the bark fibres
traditionally used. On the other hand, the "timber" walls might not
be easy to lash together and nails are probably necessary here. On
the other hand, the blackpalm or betelnut which is used for the floors
does not take nails at all well and the lashing is a superior technique,
177 used in almost all the houses. Secondly, there have been changes in
342 house design, and the use of materials. The increase in house size,
which was the most striking of the innovations, was general throughout
the village, according to a standard set by the leader and adhered to
by everybody. The change from betelnut to blackpalm flooring is
towards a superior, toughter material, harder to work and comparatively
rare in the Sasembata district. The change from sago to "timber"
walls was purely a matter of aesthetic fashion. I was told by Mr.
Sobire that it started in the early 1950's in the Kokoda district; in
Sasembata district it does not seem to have started until around 1965.
The new houses at the mission station had "timber" walls; so had the
new houses in several other nearby villages. Sivepe, being built on
a new site after the fashion started was wholly built in "timber"
(except for a few houses shifted from the old site and standing on the
new one and gradually replaced). The "timber" looks like weatherboard,
[335] which has been used on Australian houses in the Kokoda district. It
is cut from logs sawed to a length of six feet, which are then split
into shingles with a bushknife, a procedure which takes much time and
skill. The six feet long shingles are generally 3/8 inch thick and
five inches wide. The intention is to overlap them, providing better
protection against wind and rain than the sago walls have. The work of
cutting the shingles is so arduous, however, that the overlap is usually
quite small when the houses are built; as the logs are split green, the
timber shrinks until cracks appear between the boards.

177 The third type of change is that actually advocated by European
[342] authorities. (The timber walls, according to administration officers,
were a purely Orokaiva idea.) For reasons of hygiene, the administration
wanted the houses to have windows, which traditionally they did not
have. The new houses have large windows, but they are all blocked up
with boards (to keep the wind and rain out) so that they are not functional,
[364] except in warding off criticism from Australian officials. The village
improvement measures: elimination of pigs, lavatories, rubbish holes,
[351] pens for chickens; are all based on European advocacy. The neat lines
of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepe; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
614 which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies
[364] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories.
[751] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I
[627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the
731 village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

bende--"side" of a village. The term da is applied to the total set of houses built in a single jungle clearing. The layout of a da usually resembles that given in Maps V-VIII.[A] There is an empty space in the centre, which is faced by houses, usually arranged in something like parallel rows. The centre is called araha. In the traditional village there is an area, immediately surrounding the da which is given over to sorcery and where the rubbish is thrown. This is called isapa, a word also meaning "small" and it is indeed only a narrow strip, outside which the village gardens begin. The word da is applied equally to a large village and to a settlement of two or three houses, as long as it has the features mentioned. The house or bande, if it is a permanent dwelling, is part of a da and mostly is placed on one of the two sides or rows (bende), though as the village plans show, houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line made by the row or bende. The floor plan is rectangular, as shown in Diagram XII.[B] The long side of the rectangle faces the araha and the door is usually in front in the centre. The house tends to be divided into two halves, a front half and a back half, the division being a wall built directly below the ridgepole. The front half tends to be a space where people sit and talk and where visitors come in the evenings, while the back half, containing the sleeping rooms, is rather more private and not usually for visitors. The back portion is often divided into two separate rooms. I have already referred briefly to some buildings that are not residences: the small ceremonial meeting places that are called arara in Sivepa, jataka in Hohorita or by either name in Inonda; the lavatories, the chickencoops (very often, indeed, the same structure); the feasthouses and visitors' sun shelters, which are temporary; and the women's club houses which are a novelty. None of these are usually placed in the regular rows, though sometimes meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a distance of nine yards, and this distance is precisely measured in the Australian spirit of military regularity. Everyone is always within easy shouting distance of everyone else; nothing in the village goes unheard, unobserved. The two "sides" are under constant observation of one another. Movement between the houses of one side is much less conspicuous, however, than the act of crossing the araha to go to the other side. One never does this unless one has a serious reason. Movement between houses of the same side occurs continuously for ordinary gossip.

Inonda formed one da after some battles early in the century (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there was one da with 48 people and the village stayed together, with a slight decline in population (to 45 in 1962 and 41 in 1967) and a decline in the number of houses from 12 in 1950 to eight in 1962 and seven in 1967. When the Sewa people joined Inonda after the eruption, they did not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahambo (pre-war)	2. Pambs (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

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TABLE 13

TOTAL EXPENDITURE ON PUBLIC HEALTH
IN THE TERRITORY OF PAPUA DURING THE
YEAR ENDED 30TH JUNE 1965

(Source: Territory of Papua Report for 1964-1965: 235)

Administration	$	$
Public Health - General	2,902,012	
Medical Aid to Missions	94,698	
Maintenance of Hospitals, Engineering, Water Supply and Sewerage	320,988	
Construction of Water Supply, Sewerage, Hospitals and Ancillary Buildings	1,098,416	
Building Grants-in-Aid to Missions	31,220	
Purchase of Hospital and Medical Equipment	81,730	
	---------	4,529,064
Missions (Ascertainable Expenditure from their Own Funds)		90,012
Local Government Councils (From their Own Funds)		44,108
TOTAL		4,663,194

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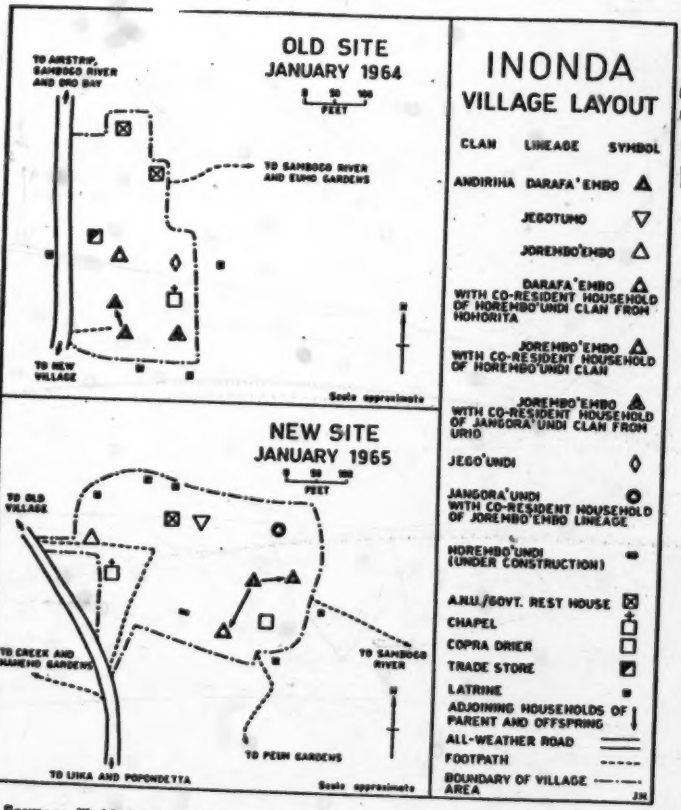
Maps VII and VIII



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Source: Waddell & Krinks 1968: 54

[End Map 7]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

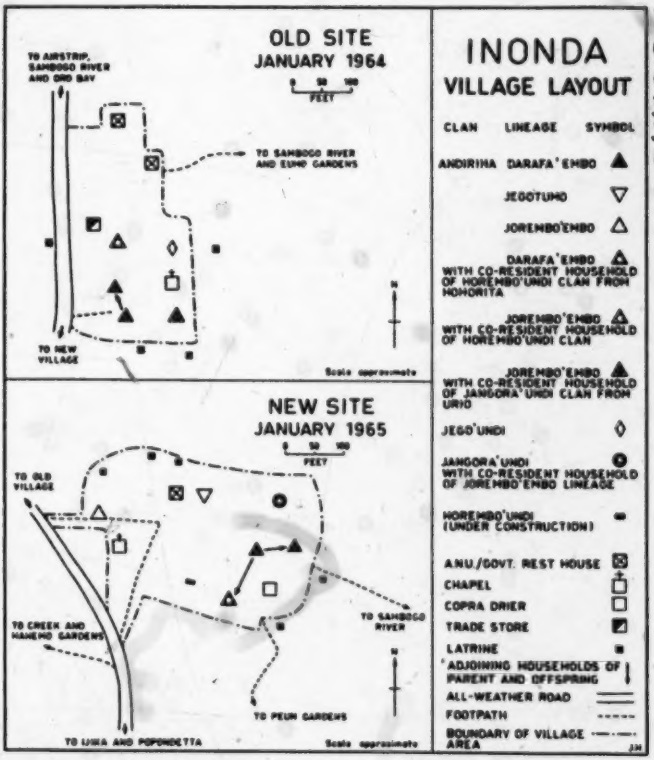

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion.

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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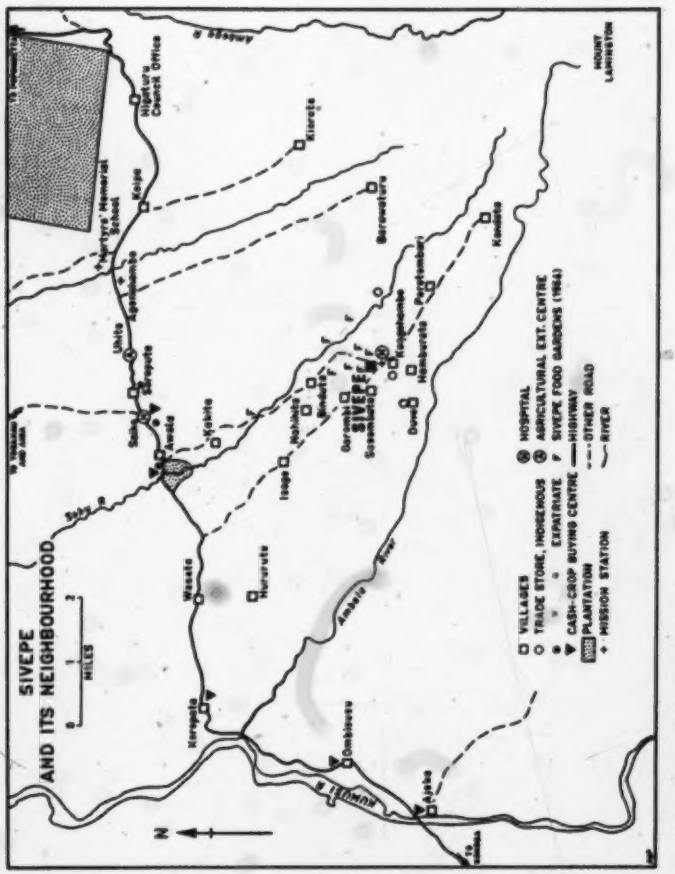

Fig. 10. Sivepe and its neighbourhood.

743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe people in our sample sell vegetables there regularly but seldom buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 648 We could not complete this introductory sketch of local facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had seen close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting of local men for subsequent phases of the war elsehwere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

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[1] Keesing 1951 :8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Iaivita and Awala villages be closed to recruiting.

454 474 teacher who had undertaken part of a co-operatives storeman's course was approached for advice. They decided to attempt to finance training for co-operatives for 2 men, but it was over a year before agreement could be reached on the selection of the trainees, 2 Administration Servants employed in Popondetta.

By this time the teacher had disassociated himself from the scheme and advised the participants to discontinue it on the grounds that they had proved themselves incapable of organizing properly constituted meetings, that the villages had failed to co-operate with one another and that they would not seek the assistance of government officers. He told them that the joint accounts were unworkable and that they would need to buy individual £5 shares if they were to proceed with the scheme.

578 The development of the enterprise up to the date of our survey had been impeded by the failure to agree upon a name, an issue which those involved feel to be fundamental, and by the absence of widely accepted leadership. Meetings have been marked by disputes between local government councillors, teachers and leaders of the various descent groups participating and some decisions arrived at during meetings have not been supported by villagers who did not attend.

However, we have received some indication since leaving Sivepe that more positive co-ordination in the neighbourhood has been achieved in the meantime and concrete plans have been put forward with a view to establishing and operating a co-operative store on the main road to Popondetta (E. Waddell: personal communication). [366] There are at present at least 3 trade stores within easier reach of Sivepe than this.

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454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 461 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1935-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

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[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [65] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [179] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Huhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 368 131 The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two of them expatriate-owned, and a new Administration school. This latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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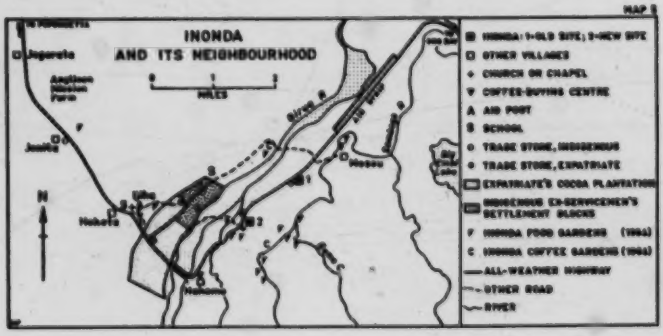

on the western slopes of Mt Lamington some 13 miles away (but 40 miles by road). As will be seen by comparing Tables 11:20 and 11:22, links between Inonda villagers and kin who are in wage employment in Ururu, Popondetta or on plantations are characterised by an outflow of garden produce from Inonda and an inflow of store-bought foods, clothing and cash. Many of the disposals to people from places more than two miles distant take place in Inonda - a string bag of vegetables weighing 35 lbs or more is rarely carried for any great distance and this in itself ensures a comparatively low volume of transactions of vegetable produce over distances greater than three or four miles. One of the main items of long-distance exchange is areca, which Inonda people receive mostly from villages such as Sewa and Kendata higher on the slopes of Mt Lamington.

In general, about half the subsistence transactions with people in the above places is of taro, with sweet potato, banana, sugar-cane and pigmeat also prominent. The bulk of acquisitions from kin in Urio, however, was of sweet potato, which had been planted as a 'catch crop' on land cleared for cocoa trees. The Xanthosoma bought at the market formed two-thirds of the acquisitions from Popondetta and fish and game formed almost half of the disposals, these going almost entirely to the market. Half of the acquisitions from Ururu (the mission station at Popondetta) were bananas - presumably such a crop is most easily grown by mission staff with little time (and land) at their disposal.

(ii) Labour services. The Inonda people receive over half of all labour services from their co-residents while most of the others came from only three other places: Sewa, where the entrepreneur's mother's sister's sons live; Ijika, where there is a branch of one of the component lineages of the Andiriha clan; and Kendata, the home village of the wife of one Inonda man (see Table 11:21). In the case of Sewa and Kendata, young people came to stay with and assist their Inonda kin for periods of a few weeks; the Sewa men assisted particularly in sago-making and construction, but also in some tasks related to the cash sector. Disposals of labour services are mainly to Inonda people but a considerable amount of assistance in cash sector tasks goes to kin in Ijika and to settlers on the Girua block. It should be noted that, although no labour assistance is received from settlers, Inonda people receive more commodities, both traditional and non-traditional, from the settlers than they give to them.

(iii) Storebought goods. The distribution of transacting partners for non-traditional goods differs greatly from that for garden and forest produce (see Table 11:22 and 11:23). The principal factor involved is the presence of trade stores as the main source of such goods. Thus, Popondetta, with several stores and within reasonably easy travelling distance, provides 40 per cent of Inonda people's total acquisitions of non-traditional goods,

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 11:21

Inonda: the geographical distribution of labour service transactions

Item	Acquisitions				Disposal			
	Labour, cash sector	Labour, subsistence sector	Total labour services		Labour, cash sector	Labour, subsistence sector	Total labour services	
Villages	Percentage		hours	%	Percentage		hours	%
Inonda	54	56	350.7	56	54	83	351.2	80
Hahemo and Ajoro	-	1	7.5	1	-	1	4.0	1
Ijika	21	3	27.2	4	19	7	36.7	8
Mosou	-	1	7.2	1	-	3	10.5	2
Sewa	22	29	179.5	28	-	-	-	-
Evundo	-	-	2.0	-	-	-	-	-
Popondetta	3	-	1.5	-	-	1	2.7	1
Ururu	-	1	8.0	1	-	-	-	-
Kendata	-	8	47.6	8	-	-	-	-
Girua block	-	-	-	-	21	4	27.5	6
Banga	-	-	-	-	-	-	3.0	1
Jenita	-	-	-	-	-	1	1.0	-
Urio	-	-	-	-	6	-	3.3	1
Total	100	99	631.2	99	100	100	439.9	100
Total hours	52.8	578.4			53.1	386.8		

although for some items the proportion derived from people or stores in Popondetta is considerably smaller. These latter include items widely-stocked in small village stores and items that circulate within the gift exchange system, such as rice, tinned fish and sweet biscuits. The prominence of Evundo as a source of non-traditional items was due to the opening of a store there in mid-1964 rather than to the links established with the road labourers' encampment. At both Ijika and the Girua block are trade stores where purchases were made, although gift exchanges were also effected with kin living there. Goods obtained from Saiho, Sangara and Ururu are exclusively gifts from kin in wage employment rather than purchases. As a result of the distribution of stores and of wage earning kin, over 55 per cent of the non-traditional goods acquired by Inonda people come from distances greater than five miles. Disposals by Inonda

[TEXT CONTINUED ON PAGE 274]

Table 11:22

Incomes: places of origin of main storebought goods acquired by the sample

Item	Rice	Tinned fish	Tinned meat	Bread	Sugar	Sweet biscuits	Alcoholic drinks	Snacks	Tobacco	Flour	Clothing	Cooking utensils	Other personal goods	Cartridges	Total	
Village	Percentages*														$	%
Inonda	29	30	9	22	20	40	28	18	83	5	7	-	86	12	91.76	25
Ijiki	7	7	30	2	3	11	3	2	1	-	-	-	-	14	18.10	5
Girua block	7	7	6	1	12	6	-	2	5	-	2	-	-	12	14.82	4
Sewa	1	1	-	-	-	1	-	1	-	-	-	-	-	-	3.46	1
Evundo	12	18	5	5	20	10	-	8	2	5	5	16	-	25	30.64	8
Popondetta	22	17	40	62	31	20	26	68	3	87	49	65	14	28	148.68	40
Ururu	6	2	7	3	7	5	29	-	1	2	-	6	-	-	12.58	3
Soiho	9	6	-	-	-	2	-	-	-	-	3	13	-	-	11.04	3
Sangara	5	5	-	1	1	-	-	-	2	-	5	-	-	-	9.60	3
Australia	-	-	-	-	-	-	-	-	-	-	28	-	-	-	21.54	6
All other places**	1	4	3	2	5	5	13	1	1	-	2	-	-	8	19.62	3
	99	97	100	98	99	100	99	100	98	99	101	100	100	99	372.84	101
Total in $	56.74	29.98	17.00	17.50	17.84	15.56	8.60	10.46	21.24	13.80	77.04	9.76	21.58	7.22		

* Columns may not add to 100 due to rounding.

** Sixteen in all.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0323 Orokaiva 0323

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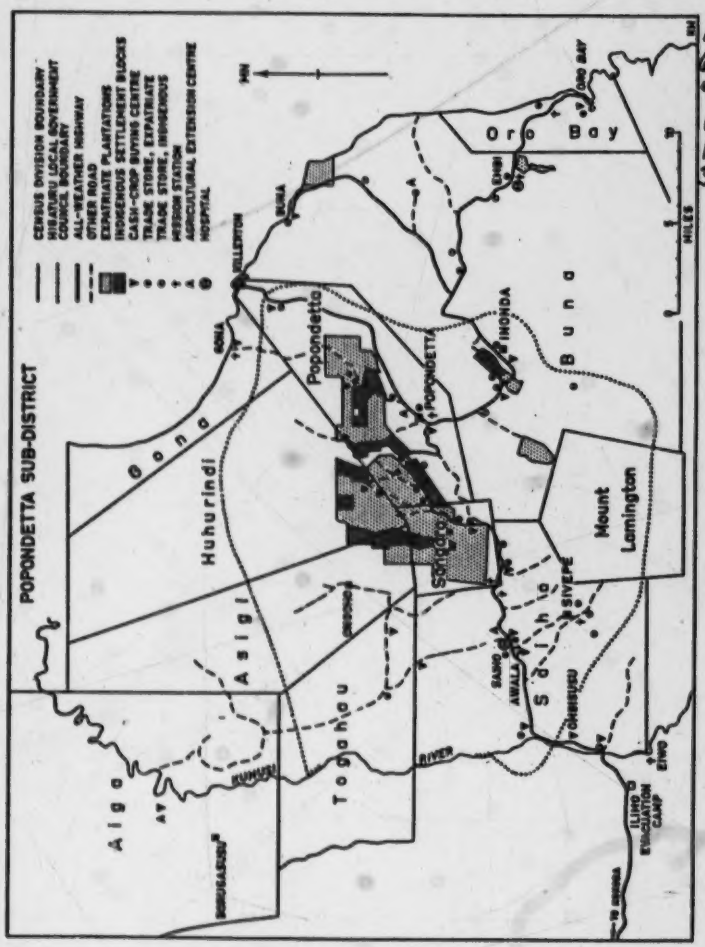
9: Kearney P-5 (1965) 1966 QJ23 Orokaiva QJ23

11: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega



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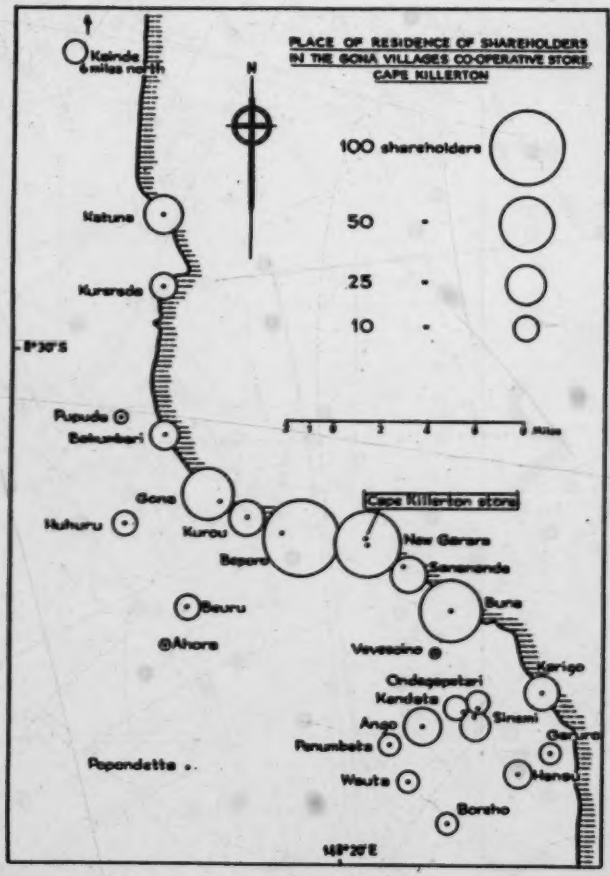

Note. At the time of joining the society Yega members lived in eight small villages but total Yega membership is shown as Beporo. In 1964 the Yega were dispersed throughout their territory in 17 localities varying in size from 30 houses to single homesteads.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a falloff in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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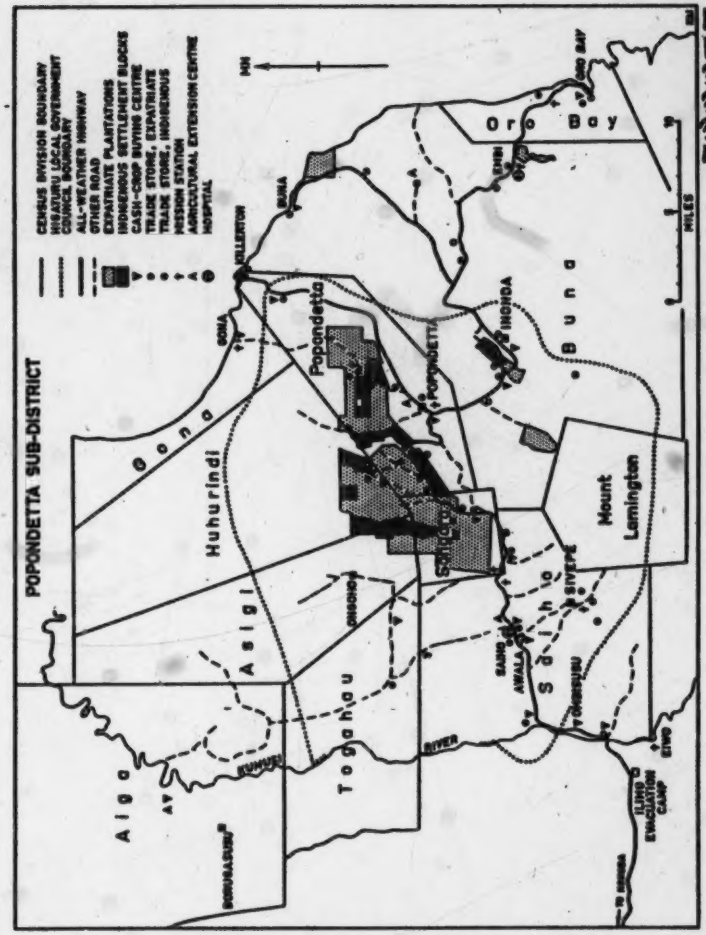
12: Crocombe E-5 (1962) 1966 OJ23 Orokaiva OJ23
Inonda



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CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

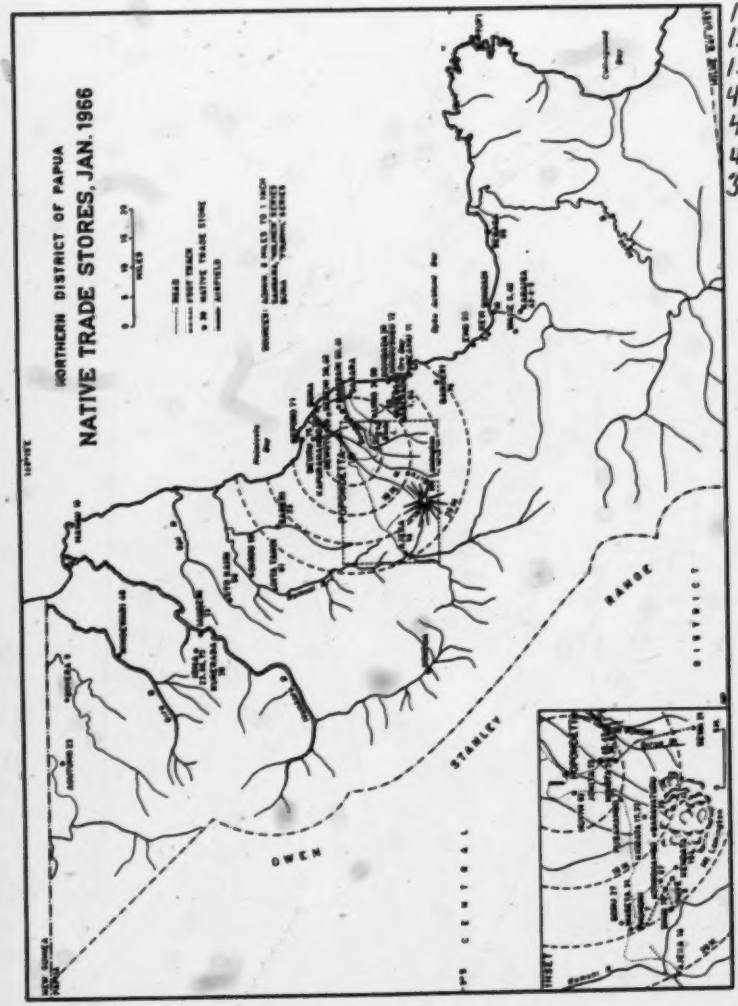
368 [811] [787] The nearest school is about six miles away across the river at Hobota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 439 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

16: Oostermeyer & Gray U-5 (1965-1966) 1967 OJ23 Orokaiva OJ23



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463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that
592 it may.

Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
derives from the land and social security from the fulfilment of
[366] obligatory ties which bring reciprocal returns in times of sickness,

463 old age or other need. The system was not geared toward capital
472 accumulation, nor was the bulk of material reward retained by the
602 man who made the effort. To achieve maximum economic efficiency a
366 modern entrepreneur must disengage himself to some extent from his kinship obligations. As Table 9 shows, a number of the entrepreneurs studied have physically removed themselves from the village to live near their cash crops, or have built close to, but outside, their villages. Thus while the vast majority of Orokaiva people live within a village, most entrepreneurs among them do not, and all the most successful live outside their home villages.[1] Independence, however, may place the entrepreneur in a vulnerable position. He has reduced access to the security provided by traditional ties, reciprocal obligations and religious rites within the village community, and there are at present no alternative provisions for social security.

Table 9 suggests that there may possibly be advantages in trading away from one's own village and where one is not dependent on one's villagers as customers. All three traders within their own village have had little or no success, and all the most successful groups are outside or away from their home village.

Table 9

Location of store

Location	A	B	C	D	E	F	G	H*	I	J	K	L
Away from own village (i.e. own villagers not usual customers)	'			'				'	'			'
Close to but outside own village		'					'			'	'	
Within own village			'		'	'						

* H's village is to be shifted to the present location of his trade store. He resides within his own village.

[166] Half of the least successful traders were still living in the village of their birth, whereas 75 per cent of the traders in both groups II and III were not living in the village in which they were born.

463 Of the sixty-seven indigenes in the Northern District holding
472 trading licences, twenty-three are shown in the government records
366

[1] Likewise all four entrepreneurs studied by Crocombe (1967:5) lived outside their villages.

16: Oostermeyer & Gray U-5 (1965-1966) 1967 OJ23 Orokaiva OJ23

463 to be trading within their own village and twenty-six outside their
472 village.[1] In eighteen cases store location is not specified. The
only indication of success provided by the licence is the period of
366 operation for each store. This index is not wholly reliable,
because a store licence is sometimes renewed when the store is no
longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 Labour. The Orokaiva commonly enlist the help of relatives to
472 establish and maintain cash crops. These relatives are rarely
476 regarded as paid labourers, and are compensated with random gifts of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [368] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

563 More important was the encouragement given by the Chinese
437 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Tsupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepa village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is
177 more often Popondetta. Another difference is that whereas Sivepa,
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Map IX

[End Map 8]

Source: Waddell & Krinks 1968: 34

22: Schwimmer E-4,5 (1966-1967) 1969 0123 Orokaiva 0123 Mount Lamington

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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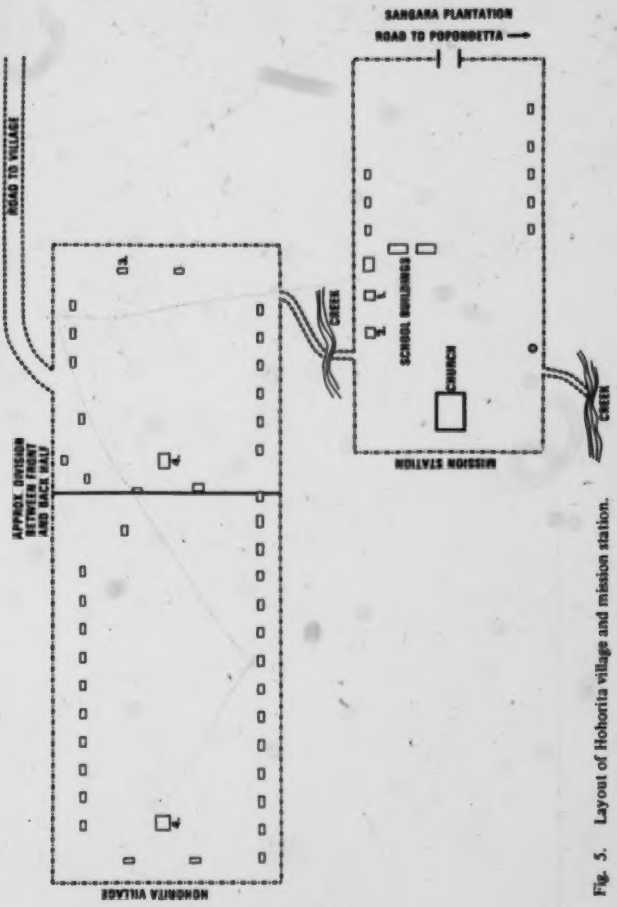

Fig. 5. Layout of Hohorita village and mission station.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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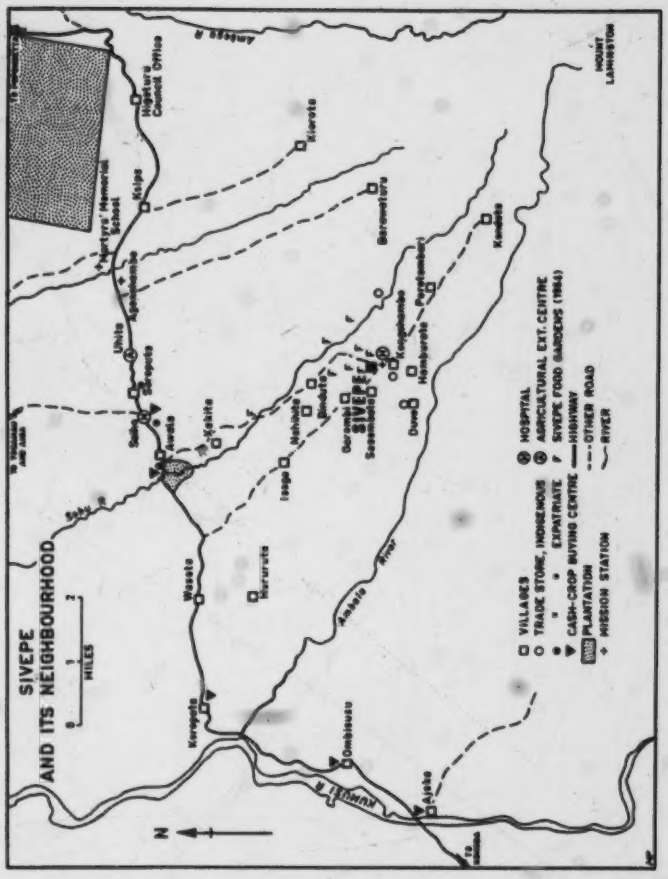

Fig. 10. Sivepe and its neighbourhood.

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Huhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 [368] [13] The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them [366] by a former resident of Inonda and several others from nearby [368] villages. There are five trade stores on or near the blocks, two [133] of them expatriate-owned, and a new Administration school. This [508] latter is not used by the Inonda people, although they believe it [494] to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

MAP 5

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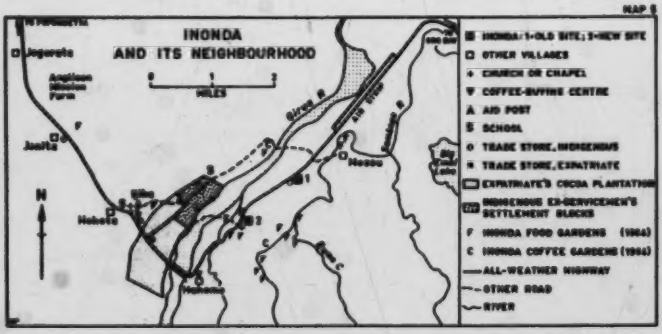

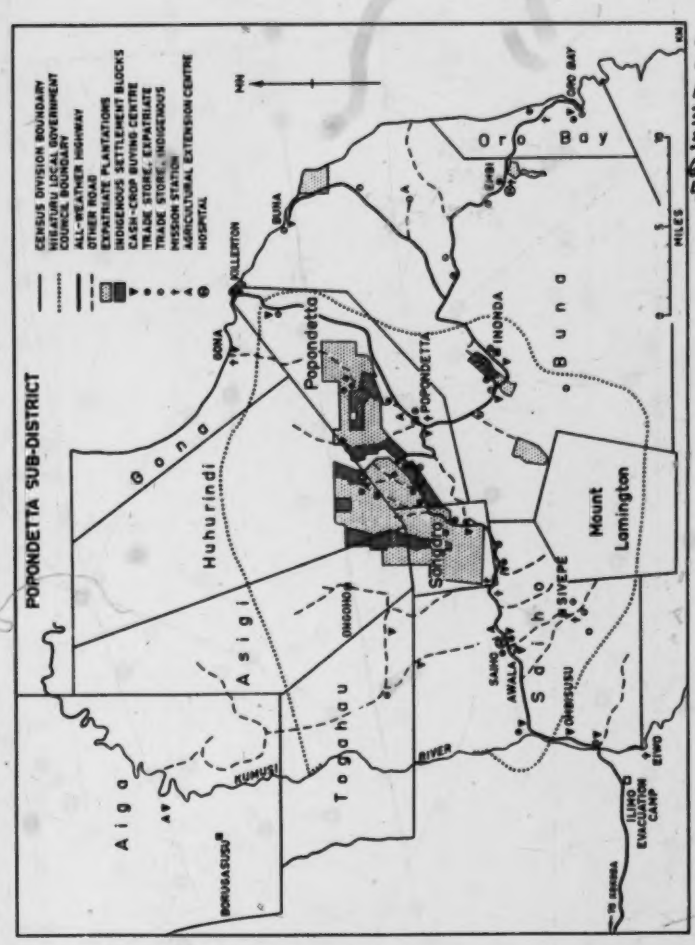

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[p.iii]

[478] [443] [657] [454] The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

[464] [167] [569] [871] [777] [434] The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

[478] [443] [438] Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

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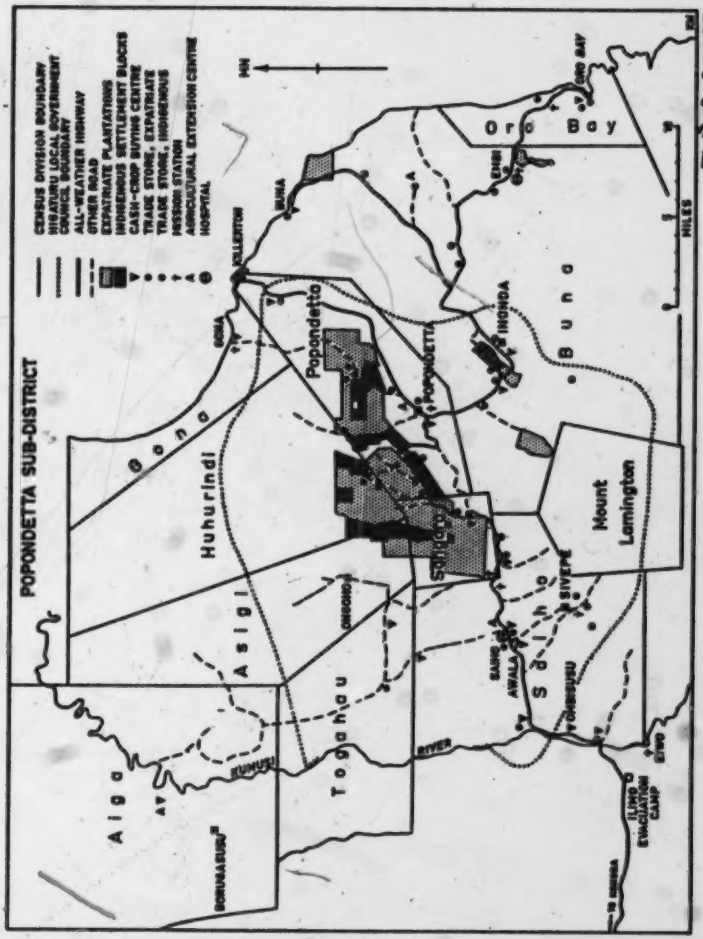
[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

12: Crocombe E-5 (1962) 1966 OJ23 Orokaiva OJ23
Inonda



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[p.44]

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta off the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 [811] [787] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 429 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [368] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Avala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepe. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepe village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepe, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepe is most often the village, or a place only a mile or so from the village (the mission station, or Garumbi, or Sasembata village), the locale of contact for the Inonda people is
177 more often Popondetta. Another difference is that whereas Sivepe,
795

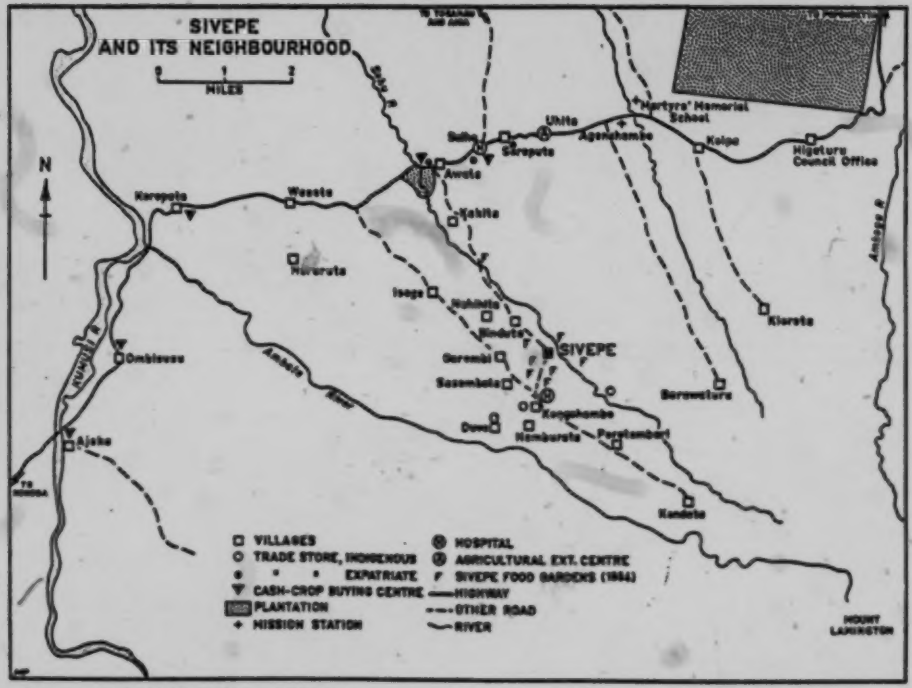
621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they
[769] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
368 hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into Hohorita the pigless era advocated by all councillors. I arrived a
433 month or two after the feasts and by that time two very small pigs had
434 appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
[245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee
[166] was normal. Young trees were also being planted at a much faster rate. Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

Map IX



Source: Waddell & Krinks 1968: 34

[End Map 8]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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Map XI

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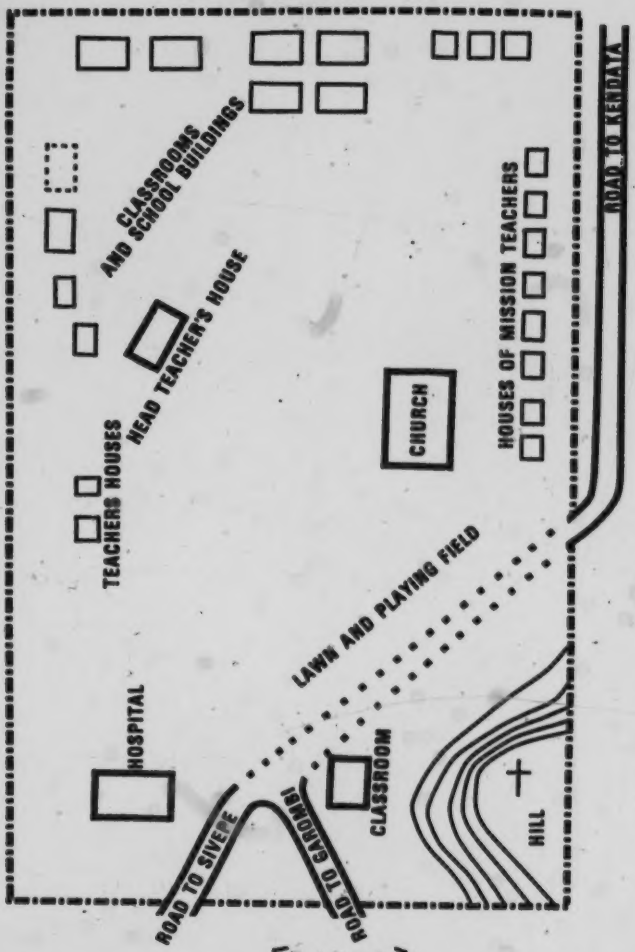
102

SASEMBATA MISSION STATION



[End Map 10]

177 to the helplessness of the survivors, the extraordinarily strong
731 influence that was exerted upon them immediately after the disaster
[177] by Bishop Hand (resulting in many becoming mission teachers, the building of a church of especially high quality, scrupulous school-going by the children and other signs of compliance), stronger pressure than usual to succeed in skilled occupations, a more profound reappraisal of ideology under the impact of disaster as well as church influence, and finally the availability of more cash-cropping land than at Sasembata, as a result of depletion of the population.

In Sivepa, where little loss of life occurred, the pattern of changes differs from that in Inonda, but the difference may well be largely explainable by the superior facilities introduced, especially by the mission, into the Sasembata area as a response by the Anglican authorities to the disaster.

177 The paradox of Papuan culture change is its dependence on
369 migration out of the rural areas. The striking changes of ideology seem to result always from travel and contact between the men who have been away and those who have stayed at home. In the district itself, the progressives are always those with outside experience. In Hohorita, these progressives had more varied and deeper experiences (perhaps because the home base was destroyed) and those who were urbanised continued constant contact with the village. Rural development has opened up some new economic opportunities, and the improvement of school services is opening up further opportunities, but it is only the returning traveller who understands these opportunities and leads his people in realising them. Relocation provides opportunities for village renewal and these opportunities are seized upon by the natural innovators within the villages (the returned migrants) to hasten the coming of the New Day.

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others.
[342] This 'crude birth rate' suggests the life of a house to be about 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431

> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

482

[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was self-sufficiency. Traditionally, the people of 433 New Guinea were subsistence cultivators plant- 24 ing their food crops in small clearings in the [226] forests and supplementing this food supply by [224] fishing, by hunting the animals which live in the forests and on the grasslands and by gather- [222] ing the edible produce of wild vegetation, notably sago. Only the simplest implements [412] were available: stone axes with which trees could be laboriously felled or ring-barked; [392] fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 24 concept of saving and no profit motive, tended 17 to be resistant to change; innovation was unnecessary. But with the coming of white men [412] possessing a superior technology, an important change occurred; steel axes, knives, and spades

[P.1-A]

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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

372 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the [824] house). The floor is of split lengths of limbom palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing [824] any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. [417] The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. 252 Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses 354 have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on 352 three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets 353 and bags hang from the ceiling and in every 415 house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a smoke during siesta time, or after the day's
[614] work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[289] The traditional body covering for both men and women was beaten out bark-cloth of the
[171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year singsings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A] [TEXT CONTINUED ON PAGE 12-A]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[23] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

[179] However, different proposals had already gained wide currency; [654] whereas the Administration had previously refrained where possible from participating in the local development of rubber, agricultural [383] extension services have been expanded in response to widespread renewed interest among the villagers and Department of Agriculture staff have recently established a factory near Ombisusu village on the scale considered suited for economic viability. It has an optimum capacity for the production of sheet rubber on smallholdings of 20 to 50 acres under high-yielding trees.

[425] Part of the programme at Ombisusu has been the redistribution of land for development as individual cash-crop blocks similar to the Yega cocoa project.[1] Demonstration of this development has undoubtedly further stimulated local interest in rubber. It is calculated that the problem of capital for investment in such a factory, a figure of the order of $240, might be met in the absence of sufficient village entrepreneurs by the co-operative ownership of facilities by a small number of neighbouring growers.

On the other hand the European who has been buying rubber from the villages believes that 6 smallholders, for instance, each with 6 acres, could be expected each to receive a net annual income on present prices of about $360 (after repaying a loan) only if the producer were to tap daily for 310 days a year on a semi-commercial standard and produce good quality sheet rubber without direct supervision from a fully qualified officer.

He envisages instead a pilot project which would involve the planting of about 100 acres with high-yielding seed at Sasembata, for instance, where the project 'would be partially financed by some 34 rubber areas now in bearing' and, having little overhead cost, 'could afford European supervision by subsidy from the Administration'. The new land might be made available on a co-operative basis; this should be developed by labour receiving 'a minimum basic wage and the unpaid value be credited as units held in shares', whereas the villagers tapping existing stands could sell the latex at the project centre on a poundage basis.

The Department of Agriculture's budget-planning, incorporating the possibility of small loans to producers, has been carried out on the understanding that all smallholdings should be held and worked by an individual or nuclear family.

[435] Establishment costs might be reduced if the building standard were to be lowered judiciously, if standard agricultural equipment

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[1] The participants in these schemes were reported to be keenly interested in the possibility of receiving registered title under the Land Tenure (Conversion) Ordinance, 1964.

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621 614] Ombi and Tara contain two clans, Musu and Kusi. The Musu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Musu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 40ff.--Analyst]

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was
[654] provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[799] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

241 [464] universally small and there is no evidence to suggest that any village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are no motor vehicles owned by individuals or groups of subsistence 493 villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

407

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage labour were considerably higher than those from cash cropping. Many [461] Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

731 433 (ii) Consequences of the disasters. The effects of the war and the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[439] [464] [465] [2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 731, p.16--Analyst]

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *taugu* and *pugu* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive [512] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily f[illegible] two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 222 dry weather.

252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro [461] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

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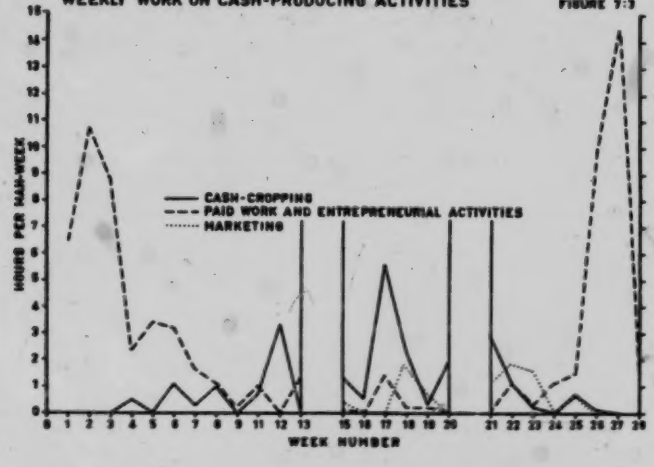
461

INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES

FIGURE 7:3



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
leaves beside paths while walking to or from other activities and
224 such gathering may not be recorded. In addition, a considerable
221 amount is gathered by children. Hunting also increases during the
dry season, with the increased number of wild pigs. However, a
[411] significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

241 to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

241 Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences 417 and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

[462] All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

214 Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of [411] the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product.

placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 gun knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £25.5.0.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[295] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966. 235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters [293] were deprived of many of their choicest feathers at a time when headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [574] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these 438 ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield 241 economic products, those plants which are native to the district 311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[1] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xanthosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive diet that has undergone recent changes: trade salt is almost universally
[411] used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Church does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional. Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $32) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

Land use

241 Food gardening: The people have been able to select the best land for cultivation, avoiding the rugged hillsides with their infertile stony soils and the kunai grasslands which are difficult to clear. The soils which they use for gardening are sufficiently fertile to give satisfactory food production without the application of artificial fertilizer. Yields are maintained by a system of bush fallowing, whereby the land is cropped once, and then left to revert naturally to regrowth for a period of approximately eight to fifteen years. There is no evidence of soil erosion or decline of soil fertility under this system and if land were in short supply the average period of fallow could probably be shortened considerably without reducing fertility. However, if a shorter fallow period was adopted, pests and diseases would probably multiply thereby causing a decline in crop yields. Moreover, short rotations enable kunai grass to become established, and this makes cultivation more difficult, as kunai is almost impossible to eradicate.

Clearing the virgin forest(1) in preparation for gardening presents considerable difficulty. However clearing the regrowth for subsequent gardens is very much simpler, and this
●[412] is the more common pattern. Axes and bushknives are used to clear the vegetation in preparation for planting the food crops. The dry season is the most suitable time for this operation as the felled vegetation dries quickly and is easily burned, but clearing is carried on at all times of the year. After the bush
[412] is cleared, the dead timber is stacked and burned. The food crops are then planted with the aid of a digging stick. The garden is usually weeded two or three times before the crops are harvested.

Approximately ninety per cent of the land cleared is planted with the principal crop, taro (Colocasia sp.) of which at least nine varieties are grown. These varieties differ in the length of time required to mature and in resistance to drought. Though some planting takes place throughout the year, most of it is done in three periods, namely August-September (the end

(1) What is regarded as virgin forest may well have been cropped many years ago, but if so the fact has long since been forgotten by the present inhabitants.

CHAPTER 3 - OTHER PROPERTY

Housing

342 All materials for building the Inonda village were
319 acquired from land and trees in which the people hold rights of
423 one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 Very few agricultural implements are used. Each
422 adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 The axes and knives were bought from local trade
435 stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 grass knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £88.5.0.

463 Trading. Almost all entrepreneurs felt that trading provided, 472 or should have provided, more reward for the effort invested than 444 cash cropping. Even those who had lost by trading wanted to return to it and C, D and E were saving their income from cash crops in order to restock their unsuccessful stores.

Table 14

Months of store's operation

A	2 (closed in Jan. 1964)	E	26	I	3
B	36 (closed in June 1964)	F	19	J	6
C	22 (closed in Sept.1965)	G	6	K	5
D	18 (closed in June 1965)	H	20	L	15
Average	19.5		17.75		7.25

The table above shows that the most successful stores are on average the most recently opened. There is a negative correlation between length of operation and trading success for each store. It may be that there is an optimum period of satisfactory functioning for stores owned by indigenes, after which custom declines. We have no evidence on this point and there are many variables on which the more successful traders differ from the less successful. Other variables, unrelated to the traders themselves, could influence the success of stores. These include the proximity of any other types of stores and the preference of some villagers for patronising co-operative stores rather than individually owned stores (see Crocombe 1967:21). The location of the store in relation to residence of the owner (see page 30)[1], to roads and to other sources of casual custom (e.g. a plantation, a road or other construction project) is also significant. We do not, however, have measured data on these variables.

[412] Tools and equipment. All the entrepreneurs in the sample have many more tools and equipment (current replacement value averages $148.80; range $46.40 to $376.45) than ordinary villagers.[1] There is not, however, any apparent relationship between trading success and value of tools and equipment.

[1] By contrast, average current replacement value of tools and equipment per householder in three villages was $7.58 in Ongoho (Crocombe, unpublished), $18.38 for Sivepe (Rimoldi 1966:25) and $21.06 for Inonda (Crocombe and Hogbin 1963:45).
A [See Category 463--Analyst]

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

18: Dakeyne K-S (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

482

[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was 433 self-sufficiency. Traditionally, the people of 24 New Guinea were subsistence cultivators plant- [226] ing their food crops in small clearings in the [224] forests and supplementing this food supply by [222] fishing, by hunting the animals which live in the forests and on the grasslands and by gather- ing the edible produce of wild vegetation, notably sago. Only the simplest implements [412] were available: stone axes with which trees [392] could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cut tings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 24 concept of saving and no profit motive, tended 179 to be resistant to change; innovation was un- [412] necessary. But with the coming of white men possessing a superior technology, an important change occurred: steel axes, knives, and spades

(P.I-A)

433 241 122 (412) were introduced. The use of these tools has greatly lightened the work of the New Guinea gardener and substantially reduced the time needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 242 The introduction of new tools has not, however, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land use, which can best be described as one of shifting-field agriculture, the average land requirement is a quarter of an acre per head per

241 242 311 (P.1-B)

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412
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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. [461]

222
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e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly

372

[P10-A]

177 Housing and village improvement: The changes in this aspect of culture
are capable of fairly precise description, which has been provided in
Table 10.5. This table applies to Sivepe only; I shall refer to some
minor differences between Sivepe and Inonda at the end of this section.
335 The changes may be analysed into several main types. First, there is
412 the extent to which European materials and tools are used. Here, we note
177 that nails were a building material as early as 1951 (and therefore
also hammers), but a significant change has been the extent of their
use. The introduction of nails was partly a time-saving device, as
framing can be efficiently lashed together with the bark fibres
traditionally used. On the other hand, the "timber" walls might not
be easy to lash together and nails are probably necessary here. On
the other hand, the blackpalm or betelnut which is used for the floors
does not take nails at all well and the lashing is a superior technique,
177 used in almost all the houses. Secondly, there have been changes in
342 house design, and the use of materials. The increase in house size,
which was the most striking of the innovations, was general throughout
the village, according to a standard set by the leader and adhered to
by everybody. The change from betelnut to blackpalm flooring is
towards a superior, toughter material, harder to work and comparatively
rare in the Sasembata district. The change from sago to "timber"
walls was purely a matter of aesthetic fashion. I was told by Mr.
Sebire that it started in the early 1950's in the Kokoda district; in
Sasembata district it does not seem to have started until around 1965.
The new houses at the mission station had "timber" walls; so had the
new houses in several other nearby villages. Sivepe, being built on
a new site after the fashion started was wholly built in "timber"
(except for a few houses shifted from the old site and standing on the
new one and gradually replaced). The "timber" looks like weatherboard,
[335] which has been used on Australian houses in the Kokoda district. It
is cut from logs sawed to a length of six feet, which are then split
into shingles with a bushknife, a procedure which takes much time and
skill. The six feet long shingles are generally 3/8 inch thick and
five inches wide. The intention is to overlap them, providing better
protection against wind and rain than the sago walls have. The work of
cutting the shingles is so arduous, however, that the overlap is usually
quite small when the houses are built; as the logs are split green, the
timber shrinks until cracks appear between the boards.

The third type of change is that actually advocated by European
177 authorities. (The timber walls, according to administration officers,
[342] were a purely Orokaiva idea.) For reasons of hygiene, the administration
wanted the houses to have windows, which traditionally they did not
have. The new houses have large windows, but they are all blocked up
with boards (to keep the wind and rain out) so that they are not functional,
[364] except in warding off criticism from Australian officials. The village
improvement measures: elimination of pigs, lavatories, rubbish holes,
[351] pens for chickens; are all based on European advocacy. The neat lines
of crotons and other shrubs, which are beginning to form a standard

A [See Cat. 116, p. 215--Analyst]

177 part of village layouts, are a blend of Papuan tradition (the Orokaiva
[351] have always been very fond of flowers and planted ornamental shrubs)
[363] and a new Australian-derived passion for military regularity. This is evident especially in the emphasis placed on building the houses in a line, and equidistant; the shrubs are also rigidly in line.

177 The changes are to some extent due to the experience of Ilimo
342 camp which is reflected in the style of Old Sivepa. The changes found in New Sivepa are due to subsequent influences, mainly that of the Local Government Council. Once village improvement became an ideologically validated objective, the way was open to the adoption of further innovations borrowed from the Kokoda district, such as the use of "timber." I did not see "timber" used East of the Sasembata district.

[182] It may well be that the increase in house size, coupled with the present need to build a large number of houses in the same year to form a major modern village, would rapidly have led to a critical shortage of sago in Sivepa if people had continued to use this material for walls. Thus, the present practice of using timber instead of sago could well have an economic explanation. Sago roofs can be built without destroying the plants, whereas plants have to be cut entirely to produce sago walls. I was not, however, given an economic explanation for the change-over to timber; I was told only that it was better-looking and provided good protection against wind and rain. But nobody would say anything against sago; sago walls are "also very good."

177 Tools and skills: Traditional agriculture has undergone considerable
241 change, as elsewhere in New Guinea, by the introduction of steel axes,
[412] bush knives, grubbers etc. Thus the preparation of the soil for gardening has been greatly facilitated. There has, however, been no change in the operations concerned with the plants themselves, planting and harvesting being done with wooden digging sticks. Many of the men have had experience in rubber plantations, with operations such as tapping; there are a few tapping chisels in the village. Training in coffee cultivation occurred after the eruption, but it was not until a few years ago that hulling machines were introduced. Every grower
177 at Sivepa has, as far as I know, only one coffee sack. The basic
245 skills needed to bring rubber and coffee to market have been mastered,
249 but up-to-date techniques for improving the yield of the trees have not been mastered. The difficulty, in this respect, is not purely one of communication, as men who have been employed as rubber tappers must be familiar with certain rules regarding care of the trees which are definitely not being practised. Similarly, I doubt whether one can explain failure, on the part of Sivepa growers, to prune their coffee trees by ignorance of pruning techniques. The true explanation would appear to be a lack of confidence that the rules make any difference to the yields. In Hohorita people began to prune their coffee trees when they discovered they were then easier to harvest. But the whole pattern of reasoning upon which Western horticultural practises are

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken 731 to introduce a few innovations which, it was thought, would improve 242 subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepa or Inonda. I myself had brought a spade for the garden I established in Sivepa, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption 731 would have destroyed taro seed stock, but this fear proved unfounded. 134 The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

731 657 Issue of Food: In the camps, rice, tinned meat, tobacco were distributed according to a ration scheme based on the census figures. Each village constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is
whether earlier students of societies depending on shifting agriculture
are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what
potential labour surplus there might once have been has already been
taken up by labour migration of male adults (which, for his sample, he
puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines
economic activity as comprising only the production of food, clothing
and shelter, and argues that, given the existing socio-economic matrix,
all the other activities listed on his time charts (see Table 5) A
should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands
has resulted in a saving of two-thirds in the time allocated to specified
axe-using tasks and who concludes from this that a vast potential labour
surplus is thus created. Waddell shows, by a quantitative study of
the allocation of time within activities, that only 38.3% of the time
allocated to an activity is actually given over to the main task, and
even if one includes ancilliear, and other productive tasks, this
raises the proportion to less than 50% of the total time devoted to
that activity. (See Table 17.) B As steel implements are used for only
a portion of productive tasks, they did not, Waddell argues, make a
crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
in an excellent position to discover this as at the time of his survey
241 seven of 15 households surveyed engaged in cash-cropping; he was therefore
able to inquire how this affected the time spent on subsistence food
production. As it happened, the median time spent on subsistence
gardening by the whole sample equalled precisely the median time
spent by the cash-cropping households. (12.6 hours per week, vide
his Table 5:5) It appears from the table I derived from Mr. Waddell
(my Table 17) how the cash-cropping families fit in this extra work:
they spend a great deal less time having rests and meals. While non-
cash croppers allocate only 28.4% of the time within activities to
their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell
gives interesting explanations which account for part of this discrepancy,
even if full allowance is made for these, the fact remains uncontestably
that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This
seems to suggest a considerable heterogeneity in working habits as
between the members of the community. The author clearly shows this
heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

511 177 trade stores and wartime dumps. Most of the tools used regularly were purchased, but those in less constant use, such as picks, rakes, hammers and saws were mostly salvaged. The 'swimming glass' (goggles for fishing) is the only common piece of equipment not used in Sivepe.

[354] Inonda differs from Sivepe in household goods in that hurricane lamps are in common use, partly perhaps because kerosene is available at the trade store. More people own torches, which are often used when hunting by night. Mosquito nets also are far more common in Inonda (although many are in poor condition) and this in part is [415] due to a higher incidence of mosquitoes. Four households possess 44-gallon drums to collect rainwater.

511 [294] Several women make their own dresses and skirts and one has a flat-iron (which was not used during the survey). Laplaps are much less common in Inonda than in Sivepe.

The different environments of the two villages are illustrated by various items in Table 4:14.

Table 4:14

Inonda: household property derived from the subsistence sector

Household no.	16	17	18	19	20	21	22	23	24
Item									
Sago-beater	4	1	-	3	-	1	1	-	2
Fishing net	1	1	1	-	-	1	1	-	-
Spear	3	7	-	3	2	4	3	2	2
Sleeping mat	7	3	2	2	-	2	1	4	2
Tapa cloth	1	-	20	1	-	2	-	-	5
Comb	-	-	-	1	-	-	-	-	-
Lime pot	-	-	1	1	1	-	-	-	1
String bag	5	2	4	1	2	4	2	6	6
Drum	-	2	-	1	-	1	1	1	1
Di and hambo	-*	28**	-	-**	7	-***	5	-***	-†
Clay pot	-	-	-	-	-	-	-	1	-

* Kept by relative in another village; quantity unknown.
** Given to household 17 by household 19 who retains right of use.
*** Some given away in exchanges, others stolen.
† Unknown quantity kept by daughter in another village.

In Sivepe there are no hunting or fishing spears or fishing nets, nor are there any sago-beaters whereas most Inonda men possess both spears and sago-beaters. The greater number of tapa cloths in Sivepe is probably related to its greater distance from Popondetta, and so to the general level of acculturation. This likewise accounts for

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245

[516]

Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

[291]

[291]
[439]
[415]

Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

312 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gega*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the house). The floor is of split lengths of limbom palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets and bags hang from the ceiling and in every house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

(824) (824) (417) 252 354 352 353 415

[P.10-B]

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A [302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet [227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
614 smoke during siesta time, or after the day's
[627] work is done. There is usually at least one
[584] *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the
[171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year singsings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots
[178] from Ambasi, thirty miles to the north, and from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P-11-A]

[TEXT CONTINUED ON PAGE 12-8]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Wausuu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[209] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[198] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He drews closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (wine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jesembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

241 rodent attack. A hardwood planting stick (ti) is used to loosen the soil, though occasionally shovels are used to make mounds for sweet potato runners and tubers, or for yams. Sugar cane and pitpit are planted either in clumps of suckers or in lengths or 3 nodes but bananas are propagated only from suckers.

Maize, cucurbits and tobacco are planted before or with the main crop of taro. They usually grow best near stumps or logs, perhaps because they benefit from extra potash and humus.[1] Tobacco seeds are thrown near stumps and when seedlings are about 6 inches high they are transplanted throughout the garden. Numerous varieties of taro (Colocasia spp.), distinguished by their colour and stem and leaf shape, are propagated by suckers. The suckers are placed in holes 6-8 inches deep and spaced about 2 feet apart. A small amount of Xanthosoma taro is planted, usually on sloping ground, and not necessarily in the main gardens. Yams are planted in separate areas if planting material is plentiful. Otherwise they are planted at random through the garden. Two common varieties are recognized.

Sweet potato is grown only in small quantities as a supplementary diet to the taro. If it is planted among the taro, the planting is delayed until the taro is suckering. Small plots are often made in a taro garden after most of the taro has been extracted. Minor crops found in the gardens are cabbage, manioc, beans, tomatoes, ginger, shallots, pineapple and pawpaws. (Table 1.)

Gardens are usually weeded 3 times. Weed infestation becomes too heavy to handle at this stage, but crops are mature enough to compete successfully and shade from the weeds is claimed to benefit the taro.

417 [136] Fencing is not as extensive or elaborate as in many Orokaiva areas, due to a scarcity of wild pigs. Gardens are usually made on sites at a distance from the village which is considered too far for domestic pigs to wander. Despite this precaution, 2 men had their gardens spoiled by village pigs just before our visit.

Fences are raised to a height of about 4 feet by piling logs horizontally on a broad base and securing them with perpendicular stakes. In most cases the fence is erected only on the garden border which is considered most accessible to pigs. This is often done after the area has been planted. The barrier may be extended later if another side is found to need protection.

[241] [476] A virtual absence of wild pigs is partly responsible for the tendency for the gardens to be scattered. In other parts of

[1] Cf. Vicary 1960:188.

241 476 417 Orokaiva territory where more effort is devoted to fence construction it is more common for the members of a village or a local patrilineal group to cultivate contiguous plots and to co-operate in the construction of one fence to protect several gardens. This reduces the total labour required for the task.

Table 1

Food plants per household*

Crop	Average	Range
Taro (Col)	0.97 acres	0.39 - 2.30 acres
Sweet potato	0.07 acres	0 - 0.20 acres
Corn	223 plants	0 - 442 plants
Bananas	71 trees	35 - 126 trees
Pitpit	88 clumps	0 - 400 clumps
Sugar	34 stools	11 - 54 stools
Yams	65 vines	0 - 136 vines
Taro (Xanthosoma)	28 plants	0 - 91 plants
Native cabbage	22 plants	0 - 100 plants
Pawpaw	17 trees	5 - 32 trees
Beans	17 plants	0 - 110 plants
Cucurbits	13 vines	9 - 28 vines
Shallots)		
Manioc)	a few plants	
Ginger)		
Tobacco	18 plants	0 - 59 plants

*12 households.

On the other hand, a total of 1 acre of taro planted in scattered plots involves more clearing than the same area planted in a continuous block of gardens. Several gardens in 1 block would have a smaller total perimeter adjoining the bush where there is usually a margin of cleared land which is never planted. The dispersal of garden sites facilitates natural reseeding of fallow land from the surrounding bush.[1]

It is difficult to arrive at an average figure for the length of the cultivation - bush fallow cycle. One particular difficulty is the fact that the clearing of a plot is often done progressively. As one section of the garden plot is cleared by a household, it is planted and then adjoining sections are cleared and planted. In some but not all cases the successive areas may then be allocated to different members in the household, such as a woman - a married sister or a brother's wife - whose husband is absent. Since few vegetables can be stored for long, this method of clearing the

[1] Conklin 1957:145.

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups [310] [136] [417] than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building [476] materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach [417] maturity. In the less densely settled areas where wild pigs are [136] common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A,[See Category 100, p.38--Analysis]

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Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

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[433]

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

[824]

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

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During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

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[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product.

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The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
[417] Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

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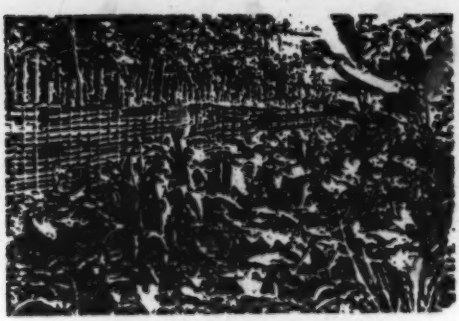


Fig. 6. A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter [224] the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is [825] not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

241 462 c) *Division of labour.* Most garden work is performed by both men and women, but cutting large trees is men's work only, and harvesting is performed by women only. Incidentally, [482] the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some 222 months, almost exclusively on sago. Production is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

[P.9-B)

372 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the [824] house). The floor is of split lengths of limbom palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing [824] any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. [417] The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. 252 Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses 354 have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on 352 three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets 353 and bags hang from the ceiling and in every 415 house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

[P.10-B]

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *tauga* and *puga* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man-hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 protection was now demanded on pain of eviction. Around the same time, coffee
423 was being introduced in Inonda as a cash crop, but none of this was planted on
425 Tandai'undi land. Three men who had land derived from a different source
422 planted coffee there in 1955 but the other families who had only Tandai'undi
245 land had planted none as late as 1967. They feared that if they did, there would be trouble with the Tandai'undi.

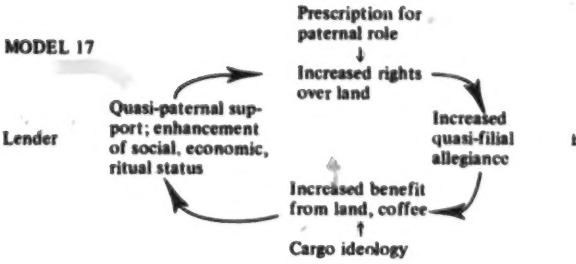
There are many examples in other parts of Orokaiva territory to show that these fears were fully justified. To confine myself to Sivepe, where my data are most detailed, I found that although more than half the land was occupied by
423 rights other than patrimony only two out of fourteen coffee gardens were
422 established on such land. When I inquired into these two cases one grower
425 explained to me in careful detail that he had nothing to fear because the mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly
[554] towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[423] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be
276 shared, after the meeting, between the men and their wives. The men are to ask
562 their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

CHAPTER 3 - OTHER PROPERTY

Housing

942 319 423 All materials for building the Inonda village were acquired from land and trees in which the people hold rights of one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 422 Very few agricultural implements are used. Each adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 435 The axes and knives were bought from local trade stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

422 435 placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

422 422 Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

411 422 Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

231 422 Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

231 Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 grass knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £55.5.0.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

Table 3

Replacement value of tools and equipment owned by entrepreneurs*

	A		B		C		D	
	No.	Value $	No.	Value $	No.	Value $	No.	Value $
Tools								
Axes	2	3.35	2	3.90	3	5.85	2	5.00
Bush knives	5	7.25	3	4.35	5	7.40	2	2.40
Grass knives	5	1.25	4	1.00	3	0.75	-	-
Picks	1	2.90	1	2.90	-	-	-	-
Shovels	1	3.20	1	2.40	1	2.40	-	-
Spades	-	-	3	6.15	1	2.05	2	2.40
Forks	-	-	1	2.92	1	1.70	-	-
Rakes	-	-	-	-	-	-	1	0.85
Hoes	-	-	1	1.25	-	-	-	-
Adze	1	2.35	1	2.35	-	-	1	1.50
Saws	2	7.45	-	-	1	2.40	1	4.50
Hammers	1	1.65	1	1.65	1	0.80	2	2.05
Pinch bars	1	1.50	-	-	-	-	-	-
Planes	-	-	-	-	-	-	2	8.75
Levels	-	-	-	-	-	-	3	7.20
Shears	-	-	-	-	-	-	1	0.85
Rulers	-	-	-	-	-	-	1	0.80
Total tools		30.90		28.87		23.35		36.30
Equipment								
Shotguns	1	56.00	1	56.00	1	56.00	1	43.00
Coffee hullers	1	28.00	2	50.00	-	-	-	-
Coffee pulpers	1	64.00	1	58.00	-	-	-	-
Coffee grinders	1	4.15	-	-	-	-	-	-
Pulping troughs	-	-	3	6.00	-	-	-	-
Rice hullers	1	31.00	-	-	-	-	-	-
Knapsack sprays	1	26.50	-	-	-	-	-	-
Counter scales	1	3.50	1	6.00	-	-	1	3.00
Produce scales	1	8.50	1	12.00	-	-	-	-
Water hoses	-	-	1	4.72	-	-	-	-
Buckets	-	-	-	-	-	-	2	3.70
Iron	-	-	-	-	-	-	1	9.00
Sewing machine	-	-	-	-	-	-	1	192.00
Total equipment		221.65		192.72		56.00		250.70
Total tools and equipment		252.55		221.59		79.35		287.00

* These were retail replacement values in Popondetta stores at the time the inventories were made.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

231 they marauded gardens, so that I assume that a good number could
be rounded up if Sivepa were to hold a major feast. They were not
at all accessible, however, and none were caught during such hunting
[422] expeditions as the people organized. On the occasions when marauding
pigs were shot, the pigs were always recognized and presented by
the killer to the owner who then presented his pig to some other
person. No doubt these pigs were a resource and perhaps I was at
fault for not taking a census, but with no pigs visibly in evidence,
I considered these assets as too shadowy. In Inonda, where Crocombe
and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl
[262] population, on the other hand, had remained very much as it was at
these earlier investigations: eggs were discovered and eaten
occasionally, but the use of the fowl was for feasting when visitors
[239] had to be entertained. It was also noticeable that the roosters
[295] were deprived of many of their choicest feathers at a time when
[411] headdresses had to be refurbished for dancing or spears decorated.
[594] At a visit from Togahou, which by traditional etiquette, as I
understand it, should have rated at least one pig, the people of
Sivepa killed only fowls. This was, I was told, because there
were no pigs available; hence the fowls were a proper substitute.
It would seem that the fowl is rapidly becoming the substitute for
the pig on many ceremonial occasions, though not yet for all
occasions.

438 There is a great shortage of both pigs and fowls for these
439 ceremonial occasions. Pigs are bought for high prices ($20 to
[435] $30)--from neighboring villages and even, as Crocombe and Hogbin
say, from European planters. Fowls tend to be made available on
big occasions by whoever has them so that their number does not
increase--a few dozen in each of the two villages.

241 We may distinguish, among local plant resources which yield
311 economic products, those plants which are native to the district
and those which have been introduced by Europeans for cash cropping
purposes. Starting our survey with the former of these two
categories, we shall deal first with food plants and next with
economic trees. I have tabulated average food plants per household
as shown for Rimoldi's Sivepa sample and as shown by Crocombe and
Hogbin for Inonda (Table 7).[A] The pattern for the two places is
remarkably similar except that sweet potato is a notably more
important crop at Inonda than at Sivepa. The reason for this is
that it is more dependable under drought conditions such as often
occur at Inonda and also, it seems to do better at Inonda. The
fact that the Inonda taro acreage is higher than the Sivepa acreage
reflects no more than the higher yield per acre in the latter place.
There is no evidence that any major change occurred in the quantities
grown or the methods of cultivation over the period with which we
are concerned, though a small increase in the consumption of
Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

657 731 423 maternal relatives. Moreover, the fact that these groups have a clan name in common implies very much less than that they have rights in each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [926] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Wasata, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended [425] as one of the new style resettlement villages. They were given some land to cultivate and stayed for several years. When the government [245] began to encourage the planting of coffee trees, the Dapari immigrants planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible [426] to plant trees on borrowed land provided the owner consents and the produce from that tree will then always belong to the planter, even [422] when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

462 women can carry produce to market. Coffee, however, is in a different [562] category because the bags are of a special type, supplied by the coffee [422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly [535] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The [177] age difference happens to be very significant in various indices of acculturation, as the first school was established at Sasembata in [821] 1945, and the custom of looking for wage labour outside the district did not become widespread until about the same time. While some Jegase [167] people know some English, none of the Seho people over 35 speak any at all. Furthermore, the first village constable and the first councillor [191] in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys, [179] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely 621 more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are [614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The 592 generally monogamous family units are under the "immediate 621 authority of the father," while the affairs of the local living 622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal 422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in [154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually [562] hostile and resistant to whites. Women were often seen ac- [786] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that [628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were [778] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes 361 as the result of a "quarrel and the fear of retaliatory magic,"; 241 but more often it was "simply the lax method of horticulture [578] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend 361 to occur in exceptionally dry southeast winter seasons. During 261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild 731 roots and fruits. The implication of this is that even the 165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica- 178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly [749] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village 361 type also occurred, particularly as a result of Mission influ- 571 ence. Over against this greater dispersal, the people have

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 differences that must be clearly stated to avoid confusion. When the two earlier authors speak of mediation, they are usually dealing with real existents which appear as binary oppositions in non-empirical cognitive systems, e.g. earth /sky. The mediating element is likewise a real existent which is physically interposed between the two opposites, e.g. trees, birds. Their physically intermediate position is an empirical fact utilised in the building of cognitive systems, which treat trees or birds as mediators between earth and sky.

When Lévi-Strauss speaks of 'mediation' in the context of sacrifice, he warns that he is not speaking of the same thing: while cognitive systems are 'systems of reference' classifying real existents, sacrifice is a 'system of operations', a technique for obtaining certain results where the opposed elements are: the Self (a real existent, in this argument) and the Other – who is transcendant and may be a god postulated for the sake of obtaining the results. While trees and birds are always physically interposed between earth and sky, a pig is interposed between man and god, or between two exchange partners, purely as an operational strategem. It may be replaced by a different object of mediation (a chicken) or by anything else human ingenuity may invent. Lévi-Strauss describes the difference thus:

> *Les systèmes classificatoires se situent au niveau de la langue: ce sont des codes plus ou moins bien faits, mais toujours en vue d'exprimer des sens, tandis que le système du sacrifice représente un discours particulier, et dénué de bon sens quoiqu'il soit fréquemment proféré. (ibid. 302)*

This argument applies to social transactions as much as to sacrifice. Certainly, in social transactions *alter* is a real existent, viz. another human being or group of human beings. Yet this *alter* has one crucial transcendental[1] characteristic, namely that *ego* cannot control his will. In making a gift to *alter* we may feel that by the norm of reciprocity we ought to receive something in return, but we can never be sure that we will. Mediating elements used in social transactions therefore have an essential resemblance to sacrifices. They are real existents which are believed to have 'virtue', i.e. to elicit a desired social return, if given to certain classes of partners in certain circumstances. The purpose of the present investigation is to determine why beliefs in the 'virtue' of various objects of mediation are held among the Orokaiva.

It is readily admitted that the system I am studying here is *'un discours particulier, et dénué de bon sens'* and that it does not provide a classifactory scheme representing the universe. It merits the term 'system' only because each exchange cycle forms a system and success or failure in the use of objects of mediation is advanced by Orokaiva as an explanation of a great variety of interconnected event-structures in time. I shall return to these theoretical questions in the introduction to chapter VIII. It will be useful first to survey some of the more elementary Orokaiva magical recipes for effecting social exchange by means of gifts of land, taro and pigs.

2. *Land and its Transfer: Transactions between the Sexes*

● 423 171 The first object to be considered is land. A kind of standard profile of the general characteristics of New Guinea land tenure has already emerged from the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

423 241 [581] [585] ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

423 593 241 As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe [578] [586] (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

[431] [462] This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with 423 241 some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom [562] [462] land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the [989] crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and [775] the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

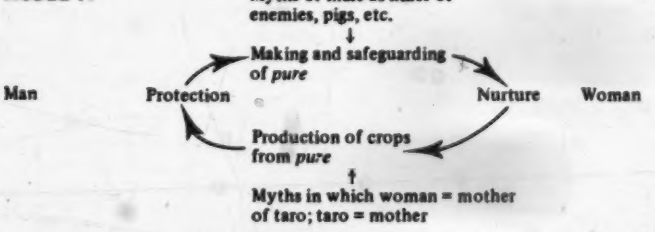
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 593 [578] one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 423 887 241 A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 768 241 Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 851 774 Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all [768] these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His [627] father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will not accept the decision of the *enda mama* has no option but to leave the village and forfeit his patrimony. 596

Economically, the *enda mama* is theoretically in full control of all products of the soil and of all resources owned by his family. He also has full control over the allocation of land to family members and others, with the proviso that his sons, if any, should get at least 'half' of the land when he dies. [423] [428]

In summary, the religious, political and economic attributes of the extended family enable us to describe it undoubtedly as a corporate group. It has to be recognised, however, that the parcels of land controlled by this corporation vary considerably from generation to generation. A corporation will shed parcels which are permanently vested in other lineages, and will obtain new parcels from uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin (1963) have all treated this land corporation as comprising a 'lineage', so that it may seem idiosyncratic that I am calling it an 'extended family'. My reason for changing the description is that I was unable to find any case of an extended family lacking an *enda mama*. There are, of course, lineages comprising more than one extended family, but in such cases one finds more than one *enda mama*. Crocombe and Hogbin, faced with this phenomenon, added the term 'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small sample contains no case of a 'sub-lineage' comprising more than one extended family. In these circumstances we may well delay discussion of the range of control of the *enda mama* until we examine patrilineal ideology in Chapter X. 596 613 [423] [425]

We notice, however, an apparent conflict between patrilineal ideology and practice. According to the ideology, an Orokaiva patrimony is passed on from an *enda mama* to his successor; there is no rule for splitting up the patrimony between the sons of a deceased *enda mama*. How does it come about, then, that every extended family has its own *enda mama*? The process is easy to describe. It is customary for an *enda mama* to allocate land to all married men of his extended family on a more or less permanent basis. He has the right to change these allocations when special circumstances arise but changes do not occur often. As the *enda mama* becomes older, and less able to make his own gardens, he tends to distribute more and more plots, either to his sons or to other persons of his choice. Though the patrimony remains undivided in theory, in practice it is being divided. In this subdivision, the rights of brothers are supposed to be equal regardless of seniority. 596 423 425 [428]

When the older brother dies, the position of *enda mama* passes to the younger brother. The sons of the elder brother then retain no rights of succession and will depend for their well-being on the new *enda mama*, their uncle, who often adopts them if they are young. If the younger brother dies, and there are no other brothers left, the younger brother's eldest son becomes *enda mama*. The custom in such cases seems to be that the portion of the original patrimony set aside for the elder brother should go to the sons of the elder brother; the portion set aside for the younger brother should go to the sons of the latter. Theoretically the eldest son of the younger brother would be *enda mama* over the entire original patrimony but in practice a gradual splitting up would be inevitable. Orokaiva do not easily accept the authority of their cousins or adoptive brothers. 596 428

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

596 In any case, there are no strong economic or political reasons to prevent the
428 splitting of the patrimony. Nor are there religious reasons, because every married
male is fully competent to carry out ritual in the garden he is cultivating. The
[775] Orokaiva do not have primogeniture in the sense intended by Raglan
(1963:100); it is not in the *enda mama* that the spirits of the ancestors are
reincarnated, but in all the individuals of the extended family. The *enda mama*,
therefore, is not the sole channel of charisma, but rather a kind of revered
manager. He usually contrives to keep the patrimony together through the
respect and obedience that is due, in Orokaiva custom, to a father and elder
brother. I know of several instances where this authority was challenged and
found that, in practice, the sons of younger brothers were not cut out of the
patrimony, but their share was cut out and the relationship was severed.

596 Informants were all agreed that at any time either the *enda mama* or the
578 junior member of a land-holding corporation may opt out of the relationship:
593 such a separation involves, first of all, the breaking down of a social relationship
in which protection is exchanged for deference and obedience. Therefore such a
breakdown involves a high cost for both partners. When I inquired into some
breakdowns that actually happened at Sivepe, I was given two kinds of
explanation: (*a*) the senior partner broke off the relationship because he was not
obeyed; (*b*) the junior partner broke off the relationship because the senior 'did
not look after the land properly'. The first kind of explanation suggests that the
elder partner, not receiving obedience, no longer received any rewards from the
relationship and therefore terminated it. The second kind of explanation is more
obscure as I never could find out just *how* the seniors had failed to protect the
land. I gather there had been bad harvests, that the juniors thought something
was wrong with the land, or that the senior had done something to provoke
sorcery which endangered all the land of his lineage. Whatever the details, the
juniors felt that the cost of deference to their elder brother was no longer
warranted, in view of the amount of 'protection' they received. There was no
fear, in any of these cases, that such a separation would be followed by
retribution, physical, magical or supernatural. As I showed in Chapter III, the
Orokaiva accepts fraternal strife as a natural consequence of events in primal
time.

596 When such separations occur within a three-generation extended family, they
613 are regarded by the community as (minor) misfortunes. On the other hand, they
● 423 are regarded as normal when they occur between first cousins in a four- or
571 five-generation lineage. Implicit in such judgements is a notion that there is a
lower and an upper limit to the useful size of corporate groups. The young man
who loses land rights because he has nobody to 'speak for him', obviously needs
incorporation in a group. The secure man in middle age who has his land
interests cut out of the control of the *enda mama* obviously feels that the useful
upper limit of the corporate group has been exceeded. We may express the
transactions at the lower and upper limit of the useful size of groups in the
following exchange cycles:

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613
423
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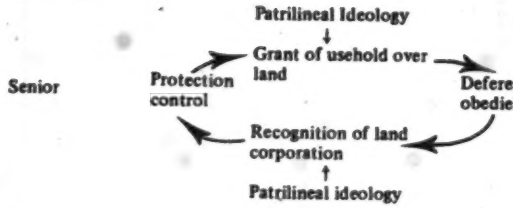
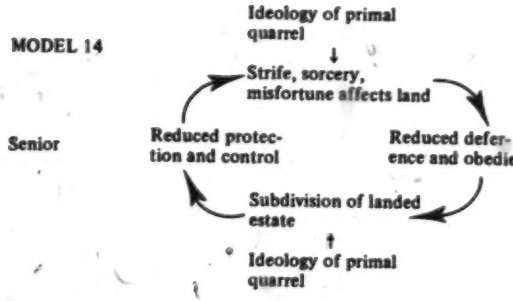
MODEL 13

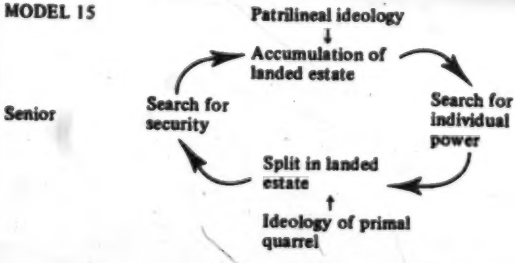


MODEL 14



Models 13 and 14, when considered together, represent two phases of the history of a family. In the first phase a man who has separated out, aided by his sons, establishes his own landed estate. Gradually, he adds to his estate in various ways (conquest, inheritance from maternal relatives, etc.) and he adds to the number of adherents to whom he is *enda mama*. Before two generations have elapsed, the estate thus established will probably be subdivided again. The process of incorporation and subdivision repeats itself *ad infinitum*, and may be expressed in the following cycle:

MODEL 15



5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 431 736 man to take responsibility while their sons are still too young. This man will 'look after' their land in an economic, political and religious sense and will restore it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 591 583 4. In all the cases mentioned so far land is an object representing respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 425 166 5. A very similar motivation may be found for the land transfers made in Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 428 425 [554] 6. As already mentioned, the transfer of land to sisters and daughters is very common. It is the rule that, in the absence of brothers and sons, sisters and daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 621 431 7. Land is sometimes made available by an individual *enda mama* for a

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Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
[169] Such gifts, apart from their economic significance, buttress social relationships both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
593 made to a sister or daughter, the husband or son or the recipient must subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

5: Schwimmer E-4,5 (1966-1967) 1973
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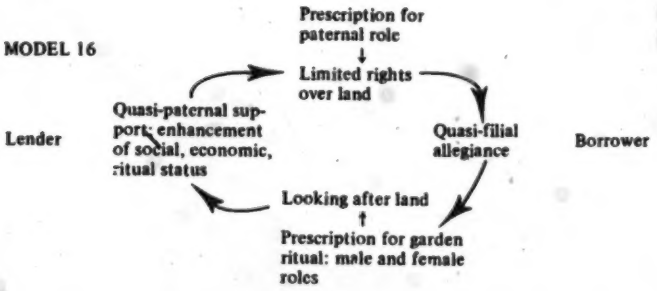
MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, [428] however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land [431] passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study 614 of Inonda (1963) and supplemented in a brief study by myself. A leading man 423 from Tandai'undi clan (Seva village) gave most of the present Inonda domain to 425 a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following [583] generation Tandai'undi, according to the custom (of patrilateral cross-cousin [582] marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 protection was now demanded on pain of eviction. Around the same time, coffee
423 was being introduced in Inonda as a cash crop, but none of this was planted on
425 Tandai'undi land. Three men who had land derived from a different source planted coffee there in 1955 but the other families who had only Tandai'undi
[422 land had planted none as late as 1967. They feared that if they did, there would
245] be trouble with the Tandai'undi.

There are many examples in other parts of Orokaiva territory to show that these fears were fully justified. To confine myself to Sivepe, where my data are most detailed, I found that although more than half the land was occupied by
423 rights other than patrimony only two out of fourteen coffee gardens were
422 established on such land. When I inquired into these two cases one grower
425 explained to me in careful detail that he had nothing to fear because the mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

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Mountain Orokaiva

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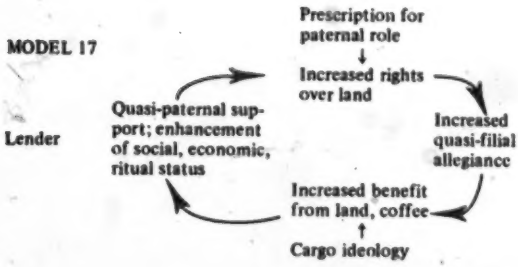
MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

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I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

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From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

602 One might well regard such immoderate claims as the response to a
423 breakdown in the social exchange relationship. According to model 17, increased
425 rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, [245] was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave [797] fewer feasts and were apt to neglect their maternal relatives. This was especially [881] so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

614 In order to demonstrate the importance of quasi-filial allegiance as a factor in
423 land transactions, I shall cite one case, again from Inonda, where coffee gardens
425 are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in [435] war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

[736] The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

423 Instances of this kind help us to understand what was involved in the
425 Orokaiva system of residual or dual rights over land and dual allegiance owed by
571 individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

best definition of 'residual rights' would be 'benefits that are claimed when the social exchange relationship has broken down'. They are a sanction applied to punish the loosening of quasi-filial allegiance.

The case of Inonda is atypical as the entire village domain is held under an arrangement derived from the ideology of exchange. A more frequent pattern is for an individual to own some blocks of land in virtue of more or less permanent gifts. In neither case does this land mediate sacred and indissoluble bonds. In the case of patrilineal inheritance, the individual violates no supernaturally sanctioned rule if he cuts himself loose from his *enda mama* (and often keeps his land). In the case of land gifts, he may also cut himself loose if bonds of affection and expediency weigh less with him than the cost of satisfying his donor. If he should break with his donor, there is likely to be theft, intrigue, sorcery and perhaps violence and it is quite unpredictable who will eventually occupy the land.

If a man has only gift land at his disposal, he is in an insecure position in his relations with his exchange partners. This seems to be the case in Inonda. If a man has only patrimony land, we may assume that he has no close bonds outside his extended family and lineage, as such close bonds would probably have led to offers of land. Such a person has too narrow a base of social support in the community to count for much, and to counter effectively challenges to his position and property that will be made from time to time.

7. *Conclusion*

It remains to be shown that the facts and analysis of land transactions illustrate the general principles set out at the beginning of this chapter. I have dealt with a series of social relationships in which one partner has a strong need to identify with the other, to maintain a stable and permanent bond and to obtain what the other has to give. This need was sometimes social, sometimes economic, sometimes emotional, sometimes religious. All these bonds depended heavily on land for their efficacy.

I have shown that a donor of land does not necessarily separate himself irrevocably from the land as such, but from the usehold of it and thus from the productivity of the land for a certain period. There are no return payments which can ordinarily compensate for the gift, the main purpose of which is to mediate a certain social relationship. The donor can never quite know in advance whether the gift will be efficacious, as the receiver of the land may not, in the end, make the social prestations for which the donor hopes. The receiver is usually someone from whom substantial social support, in one form or another, can be expected. The relationships arising in land transactions are therefore precisely those which my model was designed to interpret.

In the introduction to this chapter, I argued that a gift could be regarded as a 'mediating element', for the purpose of my analysis, only if there is identification between the donor and the mediating element. In the case of land, we have seen that the owner strongly identifies himself with the lineage spirits believed to be resident on the land. The land is a part of him, just as his ancestors are a part of him. By transferring the land to another person he causes that other person in turn to identify himself with the land. He is thus magically

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 imbued with the spirit of the donor and (ideally) compelled to behave as though
425 he owed the owner quasi-filial allegiance. This is a magical action of precisely the
kind I envisaged in the introduction to this chapter.

775 Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another,
423 the owner desires to have his land returned to him. This is why 'residual rights'
425 on cash cropping land are so awkward. The modern age, the desire for money,
571 the commitment of productive effort outside the range of the security circle all
[178] tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

791 Land may also act as a mediating element in a negative exchange between a
789 sorcerer and a person who has aroused the anger of that sorcerer, as happens
423 when the former blights the crops of the latter by placing a curse on the land. In
425 many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

577 The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

000 1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.

2. For the location of Garombi, see Fig. 10.

3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.

4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patriclan in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those plante. in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P. A. R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

241 657 people probably preferred it anyway. He gives no evidence for the latter assertion. It seems equally possible that officials of the day considered the Papuan people to be "naturally" adapted to communal patterns of work.

The first action to implement the ordinance in the Northern District was taken in 1921 and 1922 when inspections were made by officials "with a view to plantations being established of such economic plants as will suit the soil and promise a profitable return" (P.A.R. 1921-2 : 23). Similar action was taken in parts of the Central, Milne Bay and Gulf Districts at the same time.

Acquisition of land

657 423 In 1921 the Crown began to purchase lands under the Lands Ordinance 1911-22 and to declare them under the Native Plantations Ordinance, as Native Reserves set aside for the purpose of Native Plantations. Between 1921 and 1925, 38 such plantations were declared in Papua (33 of them in 1922-3). Each plantation was to be farmed by a group of neighbouring villages. By 1932, however, 18 of the Orders in Council by which the plantations had been established had been cancelled (there were no cancellations thereafter). Of the remaining 20, 14 were located in the Northern District and the other 6 in other parts of Papua. With the exception of small extensions to several plantations, no further land was bought by the Crown for this purpose after 1925. The plantations established on Crown land in the Northern District are listed in Appendix A.[A]

In 1925 the policy changed to the extent that plantations were only established under the ordinance if people could be persuaded to set aside native land for the purpose. The Crown did not buy the land, and residual ownership was not challenged, but for such time as the land was proclaimed under the ordinance it could only be used as a native plantation for a particular group of villages. We have been unable to ascertain the reasons for this change of policy. Between 1923 and 1936, 75 plantations were proclaimed in Papua under this section of the ordinance. By 1934, 36 of the Orders in Council setting up the plantations had been cancelled. Of the remaining 39, 12 were located in the Northern District. They are detailed in Appendix B.[B] No further communal plantations were ever established.

A, [See Category 423, pp. 37-40--Analyst] B, [See Category 423, pp. 41-42--Analyst]

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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(1) The vendors were illiterate and signed the documents by the putting of marks.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

245 ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not [578] paid. There was by this time a continuing dispute about the distribution of income from the coffee.

578 The Hoiwo'undi sub-clan, on whose land the Ongoho
423 coffee was planted, claimed a larger share of the proceeds
614 because the land was "theirs". As no agreement was reached, the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is [241] unjust that Hoiwo'undi should have denied them access. Nobody, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

245 For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee there spasmodically. The income was shared within Hoiwo'undi.
73 No weeding, pruning or other maintenance work was carried
241 out at this period. At the time of the Mt. Lamington eruption in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations.(1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

Conclusions

433 241 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 [614] Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) A This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and [461] strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

241 614 [592] We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A. [See Category 423, pp. 10, 25--Analyst]

Appendix "A"

Plantations established in the Northern District on Crown land under the Native Plantations Ordinance

Official No.	Location	Area a. r. p.	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage(1)
5	Bowera (Ioma)							
6	Tabara (Ioma)			These four plantations were never operated. They were cancelled in 1932.				
7	Wadi (Ioma)							
8	Poho (Ioma)							
15	Sasembata	10.0.0		(Not visited)				
16	Garombi	10.0.0		(Not visited)				
17	Isivita (Pereteambari)	10.0.0		(Not visited)				
18	Isivita (Koropata)	10.0.0	Rubber	Koropata Kiorota Egaturu Tambore	Berikipa Oitopa	Still being tapped	Owners of individual trees	-------
19	Wasida	10.0.0		(Not visited)				

(1) Reasons given by the villagers. In places where only brief visits were made these may be incomplete.

423 245

Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
20	Huvivi (New Mongi)	20. 3. 8	Coffee	Huvivi Hingoturu Onjahambo Ahamba Koganata	} Sokepa) Honinapa)	Slight		
21	Mongi (Hangeriterari)	20. 0. 0	Coffee	Mongi Pengipejari Baiwaturu Oteindarituru	) Unjekapa) Darahopa) Koreapa) Akeopa	Nil	-	
22	Soputa (1)	20. 0. 0	Coffee	Soputa Hinhota	(Paratapa, Kovenopa (Wasiripa Asinapa, Humotapa, Soupa, Asepa, Pangaripa, Tigasepa, Angorapa	Nil	-	Dispute over land rights
23	Sombo (Sangara)	15. 1. 30	Coffee	Sombo No. 1 & 2 Egaturu, Tunana, Seondeturu, Hangeturu, Sehamo, Huisata	) Horeopa, Embupa,) Pangaripa, Sorupa,) Homberepa, Heurapa,) Heregapa, Dihumapa,) Horipa, Besupa,) Hirikipa, Hatopa,) Okaipa, Sivavapa,) Houngapa, Umbahapa,) Anetapa, Kogorapa	Slight	Any Sombo people not killed in eruption	Destroyed by Mt. Lamington. Individual plots planted before community plot rejuvenated

(1) Location later changed from Crown land to Native land.

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Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
24	Imaniturn (Old Higaturu)	30.0.0		(Not visited)				
25	Andemba	22.2.0	Coffee	Andemba, Kewana, Kuruta, Opapata, Hamuni, Ogapoegarota, Hamumuta	) Horeopa, Huaepa,) Heregapa, Sindapa,) Pakuhopa, Jujapa,) Waraupa, Punahopa,) Suarapa, Haujepa,) Noerapa	Slight	Any Andemba people not killed in eruption	Destroyed by Mt. Lamington Individual plots planted before community plot rejuvenated
26	Ambogo	22.2.0	Coffee	Ambogo Amonekirota Haeraturu Ojahirita Ambobu	(Komotepa, Serigepa, (Hurepa, Oripa, Moinapa, (Sigorepa, Hinjopa Sohopa, Hatopa, Sehopa Sehopa Haujepa Embatipa	Slight		Partly destroyed by Mt. Lamington
27	Hamburata (Huhurundi)	20.2.0	Oil palm then coffee	Hamburata .... Haugata ..... Kukumbata .... Juhata ..... Seoro	(Herepa, Boutepa, (Iohipa, Ombarapa, (Seharipa, Oripa, (Barunapa, Bakopa, (Berehobari, Irinapa, (Ingikipa (Atupa, Bangaripa, (Embesepa, Haunapa (Oretapa, Huhurupa, (Hauro, Heregapa, (Pakopa (Sindapa, Hihinepa, (Jiregapa, Aukapa (Huepa, Akutepa, (Oisopa, Jega	Nil	-	Price inadequate - coffee trees later destroyed by flood

Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
28	Ahora (1) (Huhurundi)	20. 0. 0	Cocoa then coffee	Ahora Arova Omba	Hurupa Gambe Gambe	Nil	-	Price inadequate
29	Kanari	12. 0. 0	Coffee	Kanari, Ajase, Iwori, Waru, Jajau		Nil	-	Dispute over land rights
30	Ongoho	15. 0. 0	Coffee	Ongoho, Sotokoiari, Ivisuru, Hongoruta, Ondahari, Oere, Girigirita	Aiute'undi, Pomoni'undi, Hoiwo'undi, Sahuru'undi, Kajumba'undi, Hature'undi, Urumo, Baruma	Slight	1 family (ex coffee boss)	Disputes over land rights, income distribution and work sharing
		270. 2. 38						

(1) Rescinded 2. 12. 1929, but land legally remained as Crown land.

The above plantations were all gazetted on 7. 2. 1923, but an addition of 4 acres (making 20 acres 3 roods 8 perches in total) was made to Plantation No. 20 on 6. 2. 1929.

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Appendix "B"

Plantations established in the Northern District on Native Land under the Native Plantations Ordinance (1)

Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
75	Doboduru (Beuru-Perombata)	1925) 1929)	12.0.0	Coffee	(Not visited)				
76	Kakendeta	1925	9.0.0	Coffee	(Not visited)				
77	Haugata (Hamburata)	1925	12.2.0	Coffee	(Not visited)				
78	Eruatutu	1925	31.0.0		(Not visited)				
104	Kiorota-Hohota (Meamburari)	1929	15.0.0	Coffee	Hohota, Kiorota	Jau'undi, Havari-haha, Kaguhaha, Andirihaha, Suaru-undi	Slight	Former landowners	Dispute over work organization and income distribution

(1) These are in addition to the lands listed in Appendix A, which covered those acquired by the Crown and set aside as Native Reserves. Plantation No. 22 (Soputa) was transferred from Crown land to Native land in 1930 - see Appendix A.

423 245

Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
105	Hegata-Pendereta (Hururu)	1929	9.0.0	Coffee	Hegata Penderata Puhemo	(Bevehupa, Barstapa, (Eherapa, Okaipa, (Endehipa, Waraupa, (Angoropa Sesengipa Ribunipa, Gasipa, Horiwapa	Still Picking	2 Hegata men (the former landowner and one other)	Still working. The non-owner gives the landowner a share of proceeds from sales.
106	Banguho Creek (Peromba-hambo)	1929	12.0.0		(Not visited)				
110	Tunana	1934	9.0.0	Coffee			Slight		Damaged by Mt. Lamington
111	Beuru	1934	8.0.0	Coffee	(Not visited)		Slight		Damaged by Mt. Lamington
112	Hegau (Kanari-Jajau)	1936	6.2.0	Coffee			Nil	-	Dispute over land rights
113	Heherita (Kogonata)	1936	4.0.0	Coffee	Girigirita, Epa, Heherita	Pomoni'undi, Jahaki'undi, Urumo	Nil	-	Not resumed after Mt. Lamington eruption. No reason given
			128.0.0						

423 245

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

Appendix "C"

A sample of community plantations established in the Northern District of Papua since 1947 (not related to the Native Plantations Ordinance)

Location	Year started	Area (approx.)	Crop	Villages participating	Sub-clans	Present use and user	Reasons for stoppage
Hojavasuu			Coffee (originally cocoa)	Hojavasuu	Seho, Uhoru Ererehaije, Hoihane, Kindarahaije	Sub-divided about 1956 into individual plots. (Well kept. Land belongs to Seho sub-clan but no dispute over use by individuals of all clans).	Not stopped. (Use rights confirmed by registration with Higaturu Council)
Ajeka			Cocoa	Ajeka		Spasmodic, mainly by landowners	Dispute over land rights
Sivepe	1956	1½ acres	Coffee	Sivepe	Jegase, Seho, Timumu	Divided into individual plots in 1958.	(Registration with Higaturu Council applied for)
Gewoto	1947	3 acres	Coffee	Garara	Somboba, Ijipa, Undaripa and 2 others	Nil	Dispute over land rights

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Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation ....

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed ....

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ...

1. Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

2. Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

3. No proportion was ever gazetted but it is understood that one half was invariably taken.

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ...

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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434 Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation. 465 466 434

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso. 241 657

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax. 657 [423] [466] [651]

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognise that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

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[1] See Williams 1930:155; W.47, 140, 148; 0.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... 0.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

133 The average size of Saiho villages is about 175 persons, compared with an average of 100 in the Buna Census Division. The
132 Sivepe people live on the highly fertile slopes of Mt Lamington, receiving an annual rainfall of about 160 inches; Inonda's land
131 is lower, flatter and comparatively poor and receives about 95 inches a year. Inonda is 11 miles from Popondetta on the road to Oro Bay and Sivepe is roughly twice as far from the township, along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kuboma, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

241 area over many months ensures a continuous supply of maturing food over a long period, but it means that one section may have been abandoned some time before the plot as a whole is finished. Therefore, there are limitations to estimates of the rotation period, made by determining the number of years which have elapsed since the previous clearing of the plot.

An average of 6 years had lapsed since the land under cultivation was said to have been last used. One area had not been cultivated for 15 years but in several cases the land had been fallow for only 4 years.[1] Informants stated that this rotation period was long enough to maintain yields. By that time secondary growth (enda) of a reasonable height[2] has become established on the overgrown garden (manene).

Many areas of enda had been unused for longer than this average fallow period. These included some parcels of land held by the patrilineal group which has the least land per capita among our sample (see p.58), but the blocks which have been fallow for at least 20 years belong to the groups with large landholdings. Some of these areas were considered less suitable either because the soil is of a slightly poorer type or because they are not a convenient distance from the village.

The short cultivation - bush fallow rotation does not occur repetitively even on a fixed number of selected parcels held by the members of the sample. Since the average period of bush fallow was deduced from the dates of the previous use of the total area at present under cultivation, it must be noted that 49 per cent of this was on land belonging to a group other than the planter's (see p.70 ff.). The shortest fallow period was no more common among the gardens of men with small landholdings than among gardens of those with large areas. Some gardeners from each group were exercising usufructuary rights as cognatic kinsmen of landholders of other patrilineal groups (see Table 5).[2] Those who were cultivating a total of 6 acres of land of members of other clans generally claimed that permission to use this land was granted on a reciprocal basis.

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[1] Williams' informants at Wasida said that land was replanted after 4 years' fallow (Williams W .27).

[2] The Orokaiva generally maintain that it is easier to clear areas where fairly large trees are standing than areas with no prominent timber. See also Newton (1960:113) who points out that within 5 years of the start of a tropical rainforest fallow 'the total quantity of nutrients immobilised is more than half the total immobilised in an eighteen-year-old forest fallow'.

A. [See Category 423, p. 70--Analyst]

423 The only local hunting land held by Sivepe people is that held
[224] by individuals as gardening land. A villager may hunt or fish on
[22C] the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 Apart from the game available to the hunter, there are only
[231] 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside
[241] the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[43] Of the 24 pigs or piglets claimed by 7 of the 12 householders,
[42C] 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[14C] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[CS7] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

423 [245] [428] It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes acquire trees of their own in this way but unless a woman is the sole surviving member of the agnatic group in which are vested the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated [685] that he would not expect his sister to ask for produce from his trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38).# Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed [423] to retain by the deceased's co-resident kin who inherited the land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 614 On special festive occasions a localized patrilineal group has some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

#, [See Category 428, p.38--Analyn]

423 [614] clansmen or other kin of members of the group. But this takes the form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 125 We conducted a pilot survey of the patterns of work among members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepo people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepo; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 All land around Sivepo and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a [103] locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinasusu or Korinaturu. [128] For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 All land constituting territory of the Jegase, Timumu or others [428] in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated.[B]

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

613 624 Actually no power has been delegated by the leader of their lineage. They are de facto custodians to the extent that circumstances had forced them to leave their original village and each selected a place to settle convenient to one of the areas where he could exercise individual rights to patrimonial or other land. They could at the same time protect the interests of other members with landholdings nearby. Although they refer to this trust as Bebehupa land, the reciprocal obligations seem to have followed on a mutual agreement reached by particular individuals.

It is however in this group that the councillor still expects to exert most influence in the discussion of general affairs. Within it he has a recognized standing as the largest landholder. On this account his opinion and knowledge of the locality are respected also by Jegase men of other lineages. Besides, they share many boundaries with other Bebehupa men and with members of Binduta and Awala villages among whom he could conveniently serve as a representative of their interests, having closer ties with these villages than they.

Otherwise his powers outside the affairs of the dispersed Jegase lineage are related to his position as councillor. He and another councillor were elected by Sivepe, Binduta and Awala villagers before he left Binduta and attached himself to Sivepe. In this capacity he receives no more support from other Jegase men in Sivepe than from the rest of the village. In 1963 a young man of another Jegase lineage there, with considerable support from voters within Sivepe, was a rival candidate for councillor for the 3 villages but was unsuccessful.

613 614 423 We have so far discussed only the powers of Bebehupa men, either in their lineage or in the clan branch. The other Jegase men enjoy rights of land control which are even more limited. The proprietary rights now held by each householder of the Berekipa-Arehu part of the clan branch were acquired by him independently of the others. Although there is frequent interchange of planting rights and consequent discussion among them as to the allocation of their resources none of the 4 could claim of right an equal voice in the control of the others' land. Again, each of the 2 Timunu lineages had settled independently in the neighbourhood of Sivepe by acquiring land from sources inaccessible to the other.

Associated with the weakness of central control over land of smaller groups on clan branch territory is the complete freedom each landholder has in granting usufructuary rights, provided due consideration is given to the anticipated physical needs of any joint heir (i.e., a sibling) or of any dependents for whom he is responsible. Each thus maintains relationships with other

C13 individuals by creating and fulfilling obligations independently
●423 of other members of the descent group.

(iv) Landholding by the local patrilineal groups. After a closer look at landholding by the lineage, we will comment first on non-agnatic and adoptive relationships in connection with land acquisition and then on the interests in affiliation to the dispersed clan branch as a group associated with a territory.

In the instances recorded of title to subdivisions of a lineage's land having descended in 2 or more separate lines we refer to the landholders as members of distinct 'genealogical branches' of the lineage, even if the landholders are parallel cousins. The type of lineage we describe, however, is not characterized by regular internal structure, for often it is not easy to distinguish lineage from kinship in terms of function.

[17] It is as true of the mountain Orokaiva as it is of most New
[611] Guinea Highland societies that

> the principle of recruitment to a man's father's group operates, but only concurrently with other principles and is sanctioned not by an appeal to the notion of descent as such but by reference to the obligations of kinsfolk, differentiated according to relationship and encompassed within a span of only two or three generations.
>
> (Barnes 1962:6)

C13 The solidarity of the current relationships between the males of the lineage can be regarded as a function of the closeness of the ties of agnatic kinship, real or adoptive but of close degree, which among the Jegase and Timumu[1] are effectively reduced to a lineal relationship between, at the most, 3 generations of householders. The strength of the readily noticeable identification of the lineage with an estate distinct from the land of the rest of the dispersed clan branch can be seen as a measure of the interdependence between these close agnates.

A lineage such as those in our sample is the largest group whose members co-ordinate their gardening activities to exploit land associated with it. But against this must be set the independence often exercised by individual lineage members, who, in consolidating other ties of their own, acquire and dispose of short-term landrights. Perhaps some individuals co-ordinate their activities with non-agnatic kin, affines and friends as much as with members of their own group.

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[1] Excepting the Bebehupa: all but 1 of its members (see b6) are descendants either of its oldest surviving man or of his father's brother.

614 Pekuna (9 persons), 28.2 acres, 3.1 acres per head) Timunu
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head)
(If Jegase and Timunu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timunu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 Three members of these clan branches stated that they intended
423 to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).[A] Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).[B] One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).[C] One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).[D]

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 In former times it was not uncommon for a successful warrior to
727 bring back the son of a victim he had killed during an intertribal
425 raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepe. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A,[See Category 428, pp. 111-117--Analyst] B,[See Category 428, p. 112--Analyst]
C, [See Category 428, pp. 112-113--Analyst] D,[See Category 597, p. 60--Analyst]

613 of the dispersed clan branch and the only effective rights held in
614 common by the Jegase members of Sivepe are those shared by members of the village as a whole (see p.22).

[423] In land matters, as in other affairs, the closeness of personal ties between specific individuals in the Jegase group is usually of more account than shared membership of the dispersed clan branch - whether or not these interpersonal connections are agnatic: the dispersed clan branch is not exogamous and no preference is expressed for marrying out. In fact the 3 lineages, Bebehupa, Arehu and Berekipa, have been linked by several marriages in recent generations. In many circumstances the resulting network of cognatic and affinal ties is more important than lineal ties in determining what decisions are made or what action is taken.[1]

When the land of another local lineage of the clan is used for gardening, the usufructuary rights are granted and exercised more often because the landholder and gardener have a personal kinship relationship than because they are neighbouring clansmen.

614 The web of interpersonal kinship is, of course, not confined to the local agnatic group but pervades relationships between the clan branches in this and other villages in the neighbourhood, as indicated by the data on the range of Sivepe marriages and on the complex ties which either spouse (or both) is often found to have in the village where the couple reside. For several decades a constantly changing network of cognatic and affinal ties has linked members of a number of kin groups who have continually grouped and regrouped themselves as local units like Sivepe and its forerunners.

The dispersed clan branch is a significant reference group in
[613] land matters even though it has no land held in common by all members. Responses to initial enquiries about land rights of members of patrilineal groups always indicated that the Jegase lineages together in some contexts consider themselves to be one unit which is distinguished from the branches of other clans represented in Sivepe and other villages. It is not easy to discern the real interests which this response reflects.

The dispersed branch of a clan is the most enduring group which is acknowledged by all to be associated with a particular territory; a person's affiliation to this group is the standard rationale of his presence in the village and neighbourhood in which he lives and works. Ultimately the general basis for the tenure by any group within the dispersed clan branch, of its own share of land

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1 We noticed that the importance of non-agnatic ties is sometimes reflected in choices in the use of kinship terms.

A,[See Category 423, p.22--Analyst]

Table 5

423 Rights to land currently cultivated by the sample
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Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)
1. Planter is a member of lineage holding proprietary rights	15	9.17
2. Member of a different lineage but same clan branch	5	2.57
On land of planter or co-resident agnate		11.74
3. Member of a different clan within the same village	10	4.49
4. Member of another branch of the same clan	1	0.10
5. Member of a different clan and village	3	1.51
On land of others		6.10
	34	17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.

166 Chimbu or to influence the choice of a garden site; a Sivepe man
171 shares land boundaries with many gardeners but his prescriptive
425 rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with
[614] roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups.

A, [See Category 245, pp. 83-86; Category 249, pp. 87-93; Category 423, pp. 96-98--Analyst]

171 breaks down between [these] clans with land loans, gifts
121 and membership changes....
62 (Brookfield and Brown 1963:158)

Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-5).

423 Individuality in land control is reinforced in both societies
171 by the absence of formal inherited positions of leadership and a pattern of interpenetrating territories is caused by processes of individual acquisition and retention (see Brookfield and Brown 1963:141, 156).

178 individual mobility among the mountain Orokaiva. We especially
361 doubt the generalization that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Norton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

[241] [178] [177]

423 Norton expresses a view widely held among government officers[3]
614 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

423 landholding groups such as the clan to require adjustments in the way they exercise their land rights. He feels that persons with 614 authority over the use of a clan's land seldom interfere when it [425] is used for food gardens, but exercise their prerogatives more strictly when permanent cultivation is proposed. He therefore considers that registration clearly defines individual rights for the first time and that this is done by public decision of the whole clan.

We would maintain that the clear differentiation of prescriptive rights of individuals and small groups in Sivepe owes nothing to [425] cash crops or allocations by land controllers or the whole clan. The function of the registration scheme is to guarantee these rights for cash crop land and to provide facilities for transfer which are no less flexible than those which already exist in the area.

423 Meek (1949:285) points out that new methods of establishing security of tenure should follow the current local tenure practices because 'the manner of recording rights necessarily affects the form that landholding may take'.

In mid-1960 39 people with interests in Sivepe land lodged applications with a Cadet Patrol Officer for registration of land usage rights in 8 blocks of land (perhaps 10 acres). Under the Higaturu Council Registration scheme the legality of the registration was uncertain. The Orokaiva were not aware of this and accepted registration as binding. Many people thought that the application forms they received and filled out constituted registration (which they did not). Late in 1963 an officer conducting land registration visited the village but the people claimed that he would not register their blocks because he was dissatisfied with the lack of preparatory boundary clearing. The type of information sought by officials in completing the application forms reflects assumptions about clan ownership which do not fit the actual tenure situation.

[425] If the holder of prescriptive rights should wish either to have them confirmed as permanent rights or to transfer them to one of his kinsfolk any official recognition of an artificially large group as holders of residual rights could provide a precedent for influential persons in that group to extend their sectional interests to include land held by others in the group.

Similarly encroachment could occur if members of a group assumed to hold rights jointly are allocated permanent rights without attention being given to the interests of persons who in fact hold the land in severalty.

The distribution of power would be realigned with a stereotype, transfers would be impeded and litigation increased unless the

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalizing the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

179 more active collaboration with local groups and leaders' (ibid:172).
423 The report discusses the Land Tenure (Conversion) Ordinance, which became law in 1964, noting (ibid:171) that the legislation requires that the Administration satisfy the preliminary conditions of 'complete inquiry about customary rights and agreement of all the holders of customary rights' before it can conduct the surveys and convert these rights to individual registered title free from any customary limitations.

The experience of the Native Lands Commission in surveying land and recording customary rights 'indicates that progress in the application of this legislation will almost certainly be slow' - too slow, the mission believes, for much progress to be made in implementing its recommendations for economic development (ibid.).

It recommends 'a more flexible approach' to the obstacles to change, posed by the traditional social matrix of land customs. The Administration could well 'encourage native groups to work out their own solution to obtaining individual ownership or control of the land within native customs. The local government councils could make a useful contribution to this difficult problem.'

c. Economic incentives

433 Mann (1954) concluded his report on the area by stating that the agricultural possibilities of rubber were very good but that

> it seems little short of a tragedy that the well-intentioned efforts to introduce it as a native culture in this area have come so close to complete failure, whilst the trees remain as a source of discouragement to further development of what may prove to be a worthwhile venture for the landowners of the district.

657 The policy of establishing rubber stands under the Native
433 Regulation was well-intentioned but, as Humphries points out (1944:4), it was implemented by a single overworked man. The people of the district may well have questioned the point of having 'useful trees' when the initial forced plantings were not followed up with the provision of extension, processing or marketing facilities. Although they eventually received a small income for little effort when a local planter put this idle capital to some use, there have never been facilities designed specifically for local needs.

Belshaw maintained that even while receiving this income the people were unhappy with the scheme, not simply because they judged the price they received unjust, but because they felt it was 'wrong that somebody else should be able to exploit their own resources' (1951:14). Moreover, they resented the withholding of payments and this has left lasting impressions.

591 [614] [166] may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance 423 [428] is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more 614 than one descent group may have rights in a single piece of land. 423 In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

241 423 [613] This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[754] [578] [1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[562] [2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[311] [614] [3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[224] [4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] [425] [578] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[311] [136] [417] [2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 197 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

9: Kearney P-5 (1963) 1966 OJ23 Orokaiva OJ23

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Notu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepe	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pereko
Ex-service-men settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isevene, Sangara and Cirua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

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Genesis of the Yega Scheme

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242 The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

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242 On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive
654 areas of cocoa. Suitable land was not available near the coast,
423 and it was not until early 1960 when an old pre-war road was re-
178 opened between Gona and Popondetta that access was provided to
[491] suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).A This land was part of an area over which the Bowori clan of Yega had
[614] exercised rights until they were completely wiped out in inter-
[1926] tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in
[614] the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

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242 Agriculture and administration officials tried to avoid some
654 of the problems inherent in the Higaturu Council Land Registration
178 Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

245 242 423 178 The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

245 242 178 The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to [435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

161 in 1960[1] compared with the distributions determined by personal
162 interview in November 1962 and July 1964.

361 Table 4 and Figs 4 and 5 illustrate the movement of people away
166 from the coastal villages and the rapid increase in number and size
242 of inland villages which followed the implementation of the Yega
245 Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 The movement inland began immediately after the start of clear-
166 ing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed [123] hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5). Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6).

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 43]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

* Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

followed by the holders of blocks 14, 18 and 46.[1] In the development of the new settlement pattern at Binjapada, the existence of an elongated grassland area lying roughly parallel to the cocoa blocks cannot be ignored. The absence of such a grassland area in the vicinity of the western section of the cocoa blocks was one of the main reasons why no similar 'shoestring' village developed there. Holders of blocks in the western section built their new homes either in the village of Ononda or in smaller hamlets beside the Gona-Popondetta road at distances up to two miles from their blocks. Those who built in Ononda were in general men with no previous cultivation rights to garden land close to the cocoa blocks. After establishing their homes in Ononda village most of these villagers cleared rain forest in the Ononda area, thus establishing their cultivation rights to nearby areas of land. Villagers who established new homes along the road, on the other hand, in most instances built upon or near to land over which they possessed cultivation rights. To the men in this group, proximity to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 [614] [613] A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 492 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 (242) [484] [489] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[406] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 [19] 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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(423) (iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

(433) (ii) the production of crops for sale;

(242) (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

(361) (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some 241 245 forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan 178 groups), and the proposed co-operative fermentary and marketing 464 facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

241 The rights of the individual in cash cropping land will become 245 more marked in relation to those of the sub-clan and tribe. Whereas 178 food gardens were held by individuals or small descent groups and 423 rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

361 The new pattern of residence, showing tendencies towards 'ribbon' 178 development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With (423) the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

FOREWORD

101 In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are [619] known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

241 During the last ten years there has been considerable development of commercial agriculture within the area. Many 241 people have planted cash crops on land held under customary 423 tenure; some villages have planted communal blocks on land set 650 aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of the land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

226 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when the rivers are low and the water is clear, and spearing is then 222 easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided between the lineages. Boundaries are marked by trees (especially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

CHAPTER 2 - LAND TENURE

619 The concept of the tribe as a group of related clans exists among some of the Orokaiva people, but among the Inonda villagers at least it seems to be only vaguely defined and to have little if any relevance to land matters. The Andiriha and Jego'undi sub-clans are referred to in some reports as belonging to the Ihane'embo tribal group and although Inonda informants recognize some affinity with the other clans in this group, they say that the name Ihane'embo came into use only after European contact.

423 Land rights were found to be distributed at the following levels of social segmentation:

The rights of social units

423 644 The sub-clan: All land investigated in and around Inonda was found to be associated with one or more sub-clans.(1) It is a common misconception on the part of outside observers that any particular piece of land can be associated with only one such group. This is certainly not the case in the Inonda area and from superficial enquiries it appears that the Inonda case is not unique.

Where more than one sub-clan claims rights in an area the rights of each are determined by two factors - the circumstance under which the original division of rights took place; and the temporal, demographic and social changes that have occurred since the original division of rights.

This may be illustrated by the Inonda situation where

(1) Several atypical instances have been noted wherein rights are held by the clan as a whole rather than by a particular sub-clan. This may be exemplified by the case of the Aramba lands which are described on page 23.

rights to the majority of the lands are shared by three sub-clans: Tandai'undi, Andiriha and Jego'undi.(1) In view of the extent of warfare and population movement in the past, it is likely that various clans or sub-clans have occupied this land at various times(2), but the passage of time erodes away the historical facts from the memories of the living and what is important today is not the facts themselves so much as the traditionally accepted version (or versions) of them. The accounts given to us accept the Tandai'undi as the 'original' rightholders in this area, and the Andiriha and Jego'undi as having acquired certain rights which are perpetual provided occupation is continued and relations between the sub-clans remain amicable. The stability of residence which resulted from the abolition of warfare has no doubt resulted in a longer term identification of particular groups of people with particular areas of land, and this identification can be expected to become increasingly closely defined with the passage of time and the increase of population.

As noted on pages 14-15, the Tandai'undi transferred rights in the Inonda land to the local Andiriha sub-clan in return for valuables, pigs and women. The precise rights obtained by this transfer are not clear for some contingencies which have subsequently arisen (such as cash cropping) were not foreseen at that time and other conditions were tacitly understood in terms of indigenous concepts of rights to property. The deal undoubtedly gave the Andiriha rights to plant food crops, hunt and forage, though it seems likely that they were not given rights of disposal outside the clan (and probably not outside that particular sub-clan which negotiated the deal).

Presumably the rights of the Andiriha can be expected to strengthen with the passage of time and continued occupation, but even though they have now enjoyed nearly two

(1) It would not be surprising if, in the event of an investigation by the Lands Commission, Urio people also claimed rights to this land (i.e. if they wished to challenge Mr. Colrichs' earlier decision - see page 15).

(2) This seems to be general in the Orokaiva territory according to Williams, 1930:151-60; Chinnery and Beaver, 1915 Appendix 2.

423 generations of undisturbed occupation and have reinforced their
614 position by frequent marriage connections and subsequent kinship
425 ties with the Tandai'undi, they still recognize that some residual rights are held by the Tandai'undi. The extent of these rights cannot be closely defined except in relation to specific situations. For instance all parties seem to be agreed that the Tandai'undi could not plant the Inonda land without the approval of the leader of the Andiriha sub-clan and in fact they neither plant nor hunt there. Likewise, it is agreed that if the Andiriha died out their rights would revert to the Tandai'undi. Although there is no disagreement about rights of this nature, trouble would almost certainly arise in the event of incidents (such as cash sale of land to an outside group) for which there is no traditional precedent.

423 It is perhaps significant that most of the Inonda
614 people have planted their cash crops on the other side of the Girua river on land to which the Tandai'undi have no claim. Moreover, a recent survey by the Lands Department shows Inonda as Tandai'undi land, though the Inonda people consider this to be an error.(1)

614 According to the oral history of the Inonda people,
425 they have acquired land rights at various times by discovery and
113 settlement of vacant land (at Aramba), by permissive occupation (at Wauta and Sambogo) and by customary transfer (at Inonda). Conversely they have lost rights by defeat in war (at Aramba) and by voluntary abandonment (at Wauta and Sambogo).

614 The Inonda people have shifted their village at least
425 eight times in the course of the past fifty years and on the first
423 three occasions they shifted to completely different areas of planting and hunting land. With each shift they have acquired some new land rights and lost others. In no case have they acquired all rights to the lands they moved onto and in no case have they lost all rights to the lands they left.

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(1) Map held by National Mapping office entitled, "Land Tenure in the Ihasa'embo Native District, Orokaiva, Northern District" prepared by W.A. McGrath 7.4.1959.

When they were originally chased out of Aramba the defeated people fled but they still claimed residual rights in the Aramba land and hoped that their former rights could be reactivated at a later date. Had government control not been introduced at that stage they may either have fought and regained the land, or have abandoned it to the conquerors. In fact, although the conquerors had control of the land, the question of residual rights lay in abeyance until the Mt. Lamington eruption in 1951 when most of them were killed. Thereafter, the people of Inonda (along with Andiriha and Jego'undi people living in other villages) began to reassert their dormant residual rights by paying periodic visits to the area to gather wild foods. The Andiriha clan have delegated planting and hunting rights to the Havoni'undi and Umburahaha clans which live nearby at Sewa.(1) They claim to have made it a condition that only subsistence crops be planted. Any attempt to separate the residual rights of the various sub-groups of the Andiriha and Jego'undi from one another, and from the rights of conquest of the Sangara tribes, and from the rights of occupation of the Havoni'undi could only be made on arbitrary criteria.

During their stay with the Sauhaha clan, the Andiriha acquired gardening rights which they relinquished on their departure. Since then the Andiriha have frequently acquired wives from Sauhaha and have thus reinforced their earlier connection by these affinal and maternal links. As the Inonda area is short of sago, which grows in abundance on Sauhaha land, these relationships enable the Inonda people to continue to make sago on Sauhaha land.

In the course of their residence at Sambogo, members of the Inonda sub-clans cleared garden sites and planted sago, coconut, breadfruit and other trees from which they still collect fruit. The Inonda people claim that as their forefathers

(1) The Jego'undi lands at Aramba are looked after by members of that clan who live at Bofu and Sewa. The claims of the Andiriha and Jego'undi to the Aramba area were challenged by survivors of the Sangara people shortly after our field survey was completed. In recent months all parties have increased their "acts of use" in the area. The case is now before the Native Lands Commission.

cleared the virgin forest, any of their number could return and take up residence on the site of their previous village and again use their abandoned gardens (which are now covered with second growth). The area is too far distant to be planted while living at Inonda. On the other hand they recognize the residual rights of the Tandai'undi to the garden land, and the exclusive rights of the Tandai'undi to hunt in the bush and fish in the river. It is apparent that some rights in the area are retained by each party, but it is probable that the Inonda people could not in fact resume residence there without further negotiations with the Tandai'undi.

About twenty years ago a man of the neighbouring village of Urio who had no sons of his own (nor any brothers with sons) gave a large block of land named Sesehauta, which lies adjacent to Inonda, to his sister's sons - the members of the Jego'undi sub-clan of Inonda. In an attempt to avoid future dispute he held a feast to mark the transfer. At the feast, the Jego'undi gave pigs, taro and traditional valuables to their mother's brother and these were distributed among his clansmen. About two years ago the people of Mosou came, at the suggestion of Native Affairs officers and with the approval of the Jego'undi, and established their village on this land. They did not make any payment, nor do they propose doing so, though they do make occasional informal gifts of betel nut and sago to the Jego'undi. Although most Mosou people still plant on their own lands a mile or two away, several of them plant on the Jego'undi land. The Mosou people do not hunt on this area as they have ample other hunting land, but the Andiriha of Inonda sometimes do. This is another case of land rights being shared by several clans and sub-clans - the donors who retain residual rights, the donees who hold some current use rights, the Mosou people to whom some rights of residence and land use have been delegated, and the Andiriha of Inonda with whom the Jego'undi sometimes share hunting rights and who consider that, as the dominant sub-clan, they should be consulted on questions of disposal or transfer of rights to the land. Neither of the two adult members of the Jego'undi in Inonda have sons, though one has daughters. The future rights to the Sesehauta land will presumably remain in the balance for some time.

Other sub-clan rights include those to burial grounds and tracks. Once land is set aside and used as a burial ground it remains vested in the descent group even after it is no longer used for burial. Burial grounds may, however, be a post-contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

The lineage: The Andiriha sub-clan of Inonda is divided into four lineages but the Jego'undi sub-clan consists of a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

piece of land named Ombarahambo (which had previously been held by the leading Joremba'embo lineage). Some of them later returned to Hohota, while others remained in Inonda.(1) Later again, one of the original lineages (Paru) died out and its lands have been absorbed by the remaining lineages.

The Jego'undi sub-clan was allotted land at Kakitasuru and Ajerita. In later years a Jego'undi man cleared a piece of virgin bushland at Eumo and it is consequently regarded as their prerogative to plant that portion.

The following table showing the lands of each lineage in Inonda was compiled from incidental data and may well contain minor discrepancies. It will be noted that the Joremba'embo lineage is divided into two sub-lineages. A sketch map of the land is shown on page 105.A

(1) The Jegotumo are now divided into two distinct sub-lineages, one in Inonda and the other in Hohota. While they function as a single lineage for certain social purposes, the Hohota sub-lineage does not exercise any land rights in Inonda. The Inonda sub-lineage, on the other hand, continues to use some trees and gardening land in Hohota.

A [See Category 102, p. 105--Analyst]

Lineage	Lands in Inonda	
Joremba'embo: This lineage is not represented in other villages. It is to this lineage that the sub-clan leaders have belonged since the village was established. This lineage is subdivided into two sub-lineages.	Kofuretta	(First sub-lineage)
	Jombata	(" ") Originally belonged to Paru lineage (now extinct)
	Topohambo	(First sub-lineage)
	Pujota	(" ")
	Jangi	(" ")
	Kendahambo	(" ")
	Hanahambo	(" ")
	Inonda	(" ")
	Kumbaru	(" ")
	Ombarahambo	(" ")
	Pou	(" ")
	Eumo	(" ") Originally belonged to Paru lineage
	Jegaratapema	(Second sub-lineage)
	Jawabe	(" ")
	Aruruta	(" ")
	Hafu	(" ")
	Habemo)	Given direct to the councillor by his
	Mimina)	mother's father, a Tandai'undi man.
Oiwa'undi: Another branch of this lineage lives at Jegaruta.	Eumo	
	Ajerita	
	Homa	
	Pou	
Dauafa'embo: Other branches of this lineage live at Hanahiro and Hohota.	Hondetta	
	Soruta)	Originally held by a Joremba'embo
	Jegaratapema)	man whose wife was from Daufa'-
	Hafu)	embo lineage. Rights then passed
	Ombarahambo)	from a son who had no issue to an adopted son in Daufa'embo.
Jegoeumo: Another branch of this lineage lives in Kahondetta. The Inonda branch fled from Aramba direct to Hohota where they obtained (and still hold) land by conquest from the Uruva people.	Ombarahambo	
	Homa	
	Kakitaeru	
	Inota	
Jego'undi sub-clan (comprises only one lineage)	Wetufota)	Originally held by Paru lineage of
	Jonita)	Andirika sub-clan.
	Embaeri)	
	Topohambo)	
	Kakitaeru	
	Ajerita	
	Eumo	
	Seuhaeta	Given by mother's brother.

592 The household: This usually functions as a single unit of food production and consumption. In the case of a polygamous household, however, each wife plants and cooks separately, and in extended families which accommodate one or more unmarried adults these usually have individual food gardens though their produce is pooled and cooked for the whole household.

592 423 Land rights exercised by the household as a unit are restricted to usufructuary rights for the production of short-term food crops. This situation is analysed in more detail in the following section.

423 613 614 The individual: The land rights of individuals are predominantly a function of their status in relation to particular sub-clans and lineages. From data collected in Inonda we can recognize four distinct statuses:

(1) Primary membership: This is the status of persons who were born or adopted into the descent group and who are domiciled within it. Of the eleven adult males in Inonda, nine were primary members of either the Andiriha or Jego'undi sub-clans. A marginal case not included above is that of the ex-leader of the Inonda village who recently shifted to take over a farm about two miles away on the Girua resettlement scheme. He visits the village frequently and is still treated for most purposes as a primary member.

(2) Contingent membership: This is the status of persons who have been primary members, but have subsequently left the village (either at marriage or otherwise) to live elsewhere. They do not normally lose all their rights by doing so, though the nature of their rights changes. A contingent member, it seems, can generally regain primary membership by returning to reside in the sub-clan (as frequently happens with widows, returning migrant workers etc.). We are aware of eight contingent members of the Inonda sub-clans. Four of them are women who are married to men in other villages. Of the four men, one is away at work in Port Moresby, one is living in his mother's village and will probably remain there, one lives on the land of his deceased sister's husband in another village and the fourth lives in the village of his mother's new

husband and uses the latter's land.

(3) Secondary membership: This status is held by the children of contingent members of a descent group. Most people can claim secondary membership of their mother's father's lineage and clan. The degree to which the rights associated with secondary membership are in fact exercised appears to depend on the distance from the mother's village and the amount of contact with her family.(1) Although no attempt was made to compile an exhaustive list of secondary members of Inonda sub-clans, incidental information was collected on eight such persons. The children of secondary members of a descent group may be regarded as distant secondary members but, although in exceptional circumstances a distant secondary member may exert land rights in that group this is in fact a rare occurrence.

(4) Permissive membership: This is the status of those who reside in a sub-clan or lineage but do not belong to it by birth or adoption. They are admitted under particular circumstances and generally only for such time as they observe the conditions appropriate to that admission. Of the eleven adults in the village who have only permissive status with the Inonda clans, eight are wives of Inonda men, one lives with his mother who is now married to an Inonda man and the remaining two are a married couple who have two daughters married to Inonda men.

In summary, primary members are linked to the descent group by both descent and residence, contingent members by descent and previous residence, secondary members by descent only and permissive members by residence only.(2) There are of course marginal or special cases in each category, but each person in Inonda was found to fall into one, two or

(1) Most instances cited related to the taking of produce from the land of the mother's father or brother.

(2) The sub-clan membership status of adults in Inonda was as follows: household heads, 7 primary and 1 permissive members; wives, 9 permissive members; others, 3 primary (2 men, 1 woman) and 2 contingent female members (the latter visiting).

423 three categories in relation to particular clans, i.e. a man
613 may be a primary member of an Inonda sub-clan and a secondary
614 member of his mother's clan; or a married woman may be a contingent member of her father's clan, a secondary member of her mother's clan and a permissive member of her husband's
423 clan. Each category may be sub-divided according to sex, for
562 the rights of males in each category are in some respects different from those of females. Hunting rights, for example, are never exercised by women though occasionally a husband hunts on the land of his wife's sub-clan. Likewise food gardens are seldom planted by a married woman on land in which her lineage has proprietary rights; and men quite often harvest tree crops from their mothers' lands, though women seldom do so.

614 The people of the Andiriha and Jego'undi sub-clans
613 of Inonda recognize all other members of their respective clans,
423 wherever they reside, as kinsmen. Although distant kinsmen visit for feasts and ceremonial occasions, only those persons who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

614 The status of adoptees varies according to in-
613 dividual circumstances as the following examples show. About
423 fifty years ago the Andiriha (who were then living at Sambogo)
591 attacked a village of a neighbouring but unrelated Managalas tribe. Some of the inhabitants were killed and others fled. Two small boys who were captured were adopted by an Andiriha

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

[848] Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha sub-clan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

Table 3

Rights to food garden land

Nature of planter's right in his garden land	No. of gardens	Area of gardens (acres)
1. Planter is a primary member of the rightholding lineage	20	9.8
2. Member of a different lineage but within the same sub-clan	18	8.3
3. Member of a different lineage and sub-clan within the same village	10	3.7
4. Member of a different lineage but within the same clan (though in another village - Hohota)	3	1.6
5. Permissive rights only (belongs to a clan which is not represented here, but lives in Inonda village)	2	1.1
6. Permissive rights only (as for 5, but gardens located in another village - Hohota)	2	2.6
Total	55	27.1

423 only permissive rights at Inonda or any nearby place. He has
241 been living at Inonda for some years on a temporary basis and
613 is dependent for gardening land on his relatives by marriage at
614 Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

423 241 604 Informants claimed that a man in need has the right to make gardens on the land of the mother's brother though this is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

423 614 621 224 (313) Hunting and foraging rights: Any primary member of the Andiriha and Jego'undi sub-clans in Inonda can hunt or forage on any portion of the Inonda land which is covered with virgin bush, kunai grass, or second growth. Likewise any villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandal'undi clan of Ajoro village and made the

transfer at a feast shortly after the grandson finished his schooling. Along with the rights he was given the obligation to look after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

All Inonda people, along with all members of the Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

Fishing rights: For the purpose of fishing rights, the Girua river is divided into sections, each of which is associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

The Inonda portion of the river is held jointly by the Andiriha and Jego'undi sub-clans and any primary member of either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

423 226 614 permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

423 226 628 On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

226 423 614 613 [425] [624] Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

226 Only three Inonda men exercise fishing rights out-
423 side Inonda. The first two are members of the Jego'undi sub-clan who were given rights to fish in the Sambogo river from Ere creek to Mosou village by their mother's brother along with the hunting rights already described. The part of the river concerned is adjacent to the part held by the Andiriha sub-clan. As Mosou village is situated close to the Jego'undi portion of the river, some Mosou men who have distant kinship connections with the Jego'undi are permitted to fish there. All parties confirm that no payment is made for this privilege but we have observed that the Mosou people make gifts of betel nut and sago to the Jego'undi. The Inonda councillor was given exclusive rights to fish part of the Sambogo river (adjacent to the Andiriha part but at the other end from that held by the Jego'undi) along with hunting rights to the surrounding lands.

241 Cash crops: Only small areas of land are being used for cash cropping (see map page 109A). In 1955 three households planted a total of 801 trees on 1.85 acres of land situated near the Girua river on Hohota lands and these trees
241 are now in production. They are planted on land to which the
423 planters previously held only permissive rights of occupancy, although since 1961 these rights have been strengthened by registration under the Higaturu Local Government Council land registration scheme (which is explained in Appendix A). The problems associated with this land are discussed on pages 72-75. In 1961 another man planted 0.41 acres of cocoa on Inonda land in which another lineage has prior rights, but this will not produce for some years yet. A fifth man has staked out 0.6 acres of land at Inonda which belongs to a lineage other than his own, but because of the resultant dispute he will probably not plant coffee on it as originally intended (for details see page 75).

245 The small amount of coffee produced is sold in the parchment stage. If it is assumed that each tree will produce half a pound of parchment coffee annually then total production for the village will be approximately 400 lbs. The income from this, if parchment coffee is sold at 1/- per pound, would be only £20.0.0 per year for the whole village. Details of production during the past three years are shown in Table 4.

A [See Category 102, p. 109--Analyst]

423 428 425 In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

518 627 754 In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

CHAPTER 3 - OTHER PROPERTY

Housing

942 All materials for building the Inonda village were
319 acquired from land and trees in which the people hold rights of
423 one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 Very few agricultural implements are used. Each
422 adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 The axes and knives were bought from local trade
435 stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

231 pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring [435] villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

241 The most important trees in the Inonda subsistence
245 economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while
[1024] the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work,
● 423 they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

423 In addition to the rights of those born in Inonda, some
241 wives claim rights to use economic trees in their home villages.
245 They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

423 241 245 miles away and another to collect betel nut about fifteen miles away.(1)

The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

222 [262] Unlike in other parts of the Orokaiva country sago does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights. Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

423 241 245 A total of 21 sago trees was accounted for on Inonda lands, but the bulk of sago supplies is obtained from outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

423 241 245 Lakes; those who are related to the Sauhaha people use trees on the Sauhaha land, and those who are related to the Tandai'undi use trees on their land. Three Inonda men claim rights in six sago trees in their mothers' villages.

Although informants usually refer to trees as being individually owned, in fact they are more often owned by siblings (or half-siblings of the same father) and merely referred to in the name of the eldest male sibling. Thus all but three sago trees in Inonda were owned by more than one person. Moreover, it is apparent that the Inonda people recognize implied qualifications to these rights. The resident adult children of the 'owners' are regarded as having the same rights of use (but not of control or disposal) as their fathers. Qualifications are particularly noticeable in the case of sago and a man who is not using a sago tree can scarcely refuse it to a resident cousin or even an unrelated neighbour who requires it. As a sago tree takes about fourteen years to mature, it is not unusual for a man not to have one ready when he needs it. Also, as a large quantity of food is obtained from each tree, it is common for villagers who are not closely related to exploit jointly a tree which belongs to one of them. During our stay two sago trees were harvested. One group of four men (who belonged to three separate lineages of the same clan, but one of whom lived in Hohota) harvested a tree belonging to one of them. Another man harvested a tree which belonged to his wife's family and was growing in the neighbouring village of Urio.

The village people claimed 104 coconut trees in Inonda and said that (excluding children absent at school) only two non-residents owned coconut trees there. Both were contingent members of the Inonda sub-clans. One Inonda man has 4 trees on his father's lineage land in Hohota, and two others claimed a total of 15 trees in the villages of their respective mothers. Two others claimed that they had rights to trees in their mothers' villages though they had not exercised the rights and were not sure how many trees were involved.

Betel nut does not grow well in Inonda and there are no bearing trees in the area. One man still uses three trees which he planted on the land of a neighbouring tribe in the

423 mountain area while taking refuge there during the war. Two
241 others have been allocated specific trees in their mothers'
245 villages. One obtains supplies from his wife's village, but most Inonda people must obtain their betel nut by barter or purchase from villages further inland.

Only two households own hauga nut trees in Inonda (a total of 8 trees). One man has two trees on his lineage land in Hohota village, one has four trees in his mother's village and there are some hauga trees in Aramba which Inonda people harvest on visits there.

Breadfruit are relatively plentiful, 52 trees being noted, not including 2 at Ajoro which are owned by one Inonda man, and 2 at Hohota by another. Some 37 pandanus trees were recorded in addition to one each at Hohota and Aramba. We found no instances of pandanus trees being owned by non-residents other than men who were contingent members of the Inonda sub-clans. On the other hand several breadfruit were owned by the children of women who originated from Inonda but had married elsewhere.

Non-monetary valuables

436 The Inonda people recognize two categories of non-monetary valuables; firstly hambo which are ornaments made of sea shells, pigs' tusks, dogs' teeth etc., and secondly di which are ceremonial head-dresses made of feathers. Hambo and di are exchanged at certain ceremonies and sometimes given in recognition of a service rendered or as a token of apology. They can also be acquired by barter, and there is still some trade in shell ornaments from the coast and in feathers for head-dresses from the mountains. In recent years, however, valuables have frequently been acquired by cash purchase.

It is difficult to value hambo and di in terms of cash and whatever formula one adopts has its inadequacies. It is nevertheless important that some attempt be made to equate them, for valuables and cash are in some circumstances acceptable substitutes for one another (especially in meeting traditional social obligations) and the acquisition of the one is to some extent in competition with the acquisition of the other.

CHAPTER 5 - LIMITATIONS ON PRODUCTIVITY

Features of the tenure situation which inhibit productivity

614 423 518 The overlapping claims of various clans and sub-clans cause uncertainty as to the rights of each, in particular with respect to lands planted with cash crops. To illustrate this point we will quote several examples. During our stay in the village one Inonda man had a temporary job as foreman in a nearby construction camp. Due to completion of a particular phase of the work some workers were dismissed by the European overseer and these included some Tandai'undi men. These men then came to Inonda village and reminded the foreman that Inonda was "their" land and that if he wanted to remain on it, he had better get them their jobs back. This foreman has no cash crops and claims the reason for this to be his fear of trouble with the Tandai'undi. With one exception, nobody has cash crops on Inonda land. The Inonda people dare not take the case to the Lands Commission in case judgement is given in favour of Tandai'undi, in which case the Inonda people could lose all their rights. (1)

614 423 425 518 Those Inonda people who have cash crops in production have planted them on the far side of the Girua river. The land where they are planted was occupied until about forty years ago by the Endehi'undi clan. The Endehi'undi were defeated in war shortly after European contact and the few survivors scattered to various villages where they took up permanent residence. This land was apparently abandoned and not used again until 1952 after the Mt. Lamington eruption when some people of the neighbouring Jau'undi clan of Hohota village cleared the bush and planted food gardens there. After the Mt. Lamington danger passed most of them returned to their home

(1) The Native Lands Commission in the Territory appears to have awarded title on a basis of historical precedent much more frequently than on current needs or recent arrangements. It would not be surprising if, in the event of a case before the Commission, rights were awarded to the Tandai'undi (in pre-contact times, of course, occupation of the land and the relative strength of the two parties would have been the main criteria).

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

not legally binding.(1) In fact, however, the parties to this dispute assume that the officer concerned does have the necessary power to enforce the agreement, and thus it is effective for the present, particularly as it has been reinforced by registration of the land with the council. The Endehi'undi nevertheless intend to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

Our third example concerns the Jego'undi sub-clan of Inonda. Neither of the two adult members of this sub-clan has planted cash crops. One of them had prepared ground for planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Busin v. Havini in which it was ruled that although Regulation 59 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soupe v. Westiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

assistance. The system of investigation followed by the Commission is very detailed, and accordingly in the period of three years since the Commissioner was posted to the district only about five disputes have been settled. Already 34 other cases are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

In the meantime the area is left without adequate machinery for the definition of rights and the settlement of disputes. Indigenous leaders, whether councillors, clan heads or other elders have no legal right to determine disputes, and although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1)- Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higatura Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

to maldistribution of land.(1)

The individual lacks security of tenure for his cash crops, but not for his food crops. In the case of the coffee blocks on Endehi'undi land a reasonable degree of security has been achieved by registration under the Higaturu Council scheme.(2) Nobody dares apply for registration for cash crop blocks on Inonda land for fear of objections by the Tandai'undi but even if these were overcome, there would probably still be inadequate security of tenure for cash crops even within the sub-clans. The size and value of blocks hardly merit the cost in time and money of precision surveying and government registration, and the present Higaturu Council registration scheme would appear to us to be well suited to the present conditions, if it was supported by the Administration and by appropriate legislation.(3)

Economic trees and other personal wealth appear to have always been held either by individuals or by small groups of siblings (though subject to specific obligations to kin). The possession of income-producing trees by individuals is thus in harmony with traditional concepts of rights to trees. In the traditional culture, however, rights to trees did not necessarily coincide with rights to the land on which they were planted, beyond the right of access and the use of such land as was

(1) Formal provisions for transfer under certain circumstances are contained in the Land (Tenure Conversion) Bill 1963. This bill has not yet been passed by the Legislative Assembly. The transfer system provided for, however, does not apply to any land until it has been dealt with by the Land Titles Commission. Unless the Commission is provided with enormous resources or delegates its routine functions to local bodies it will be unable to provide such facilities for all but a small fraction of the Territory for many years to come.

(2) The Higaturu Council scheme is explained in Appendix A[A]

(3) Official policy as expounded by the Minister for Territories (Hasluck 1960:1019-21), states that the only acceptable form of title is that issued by central government (and thus the Higaturu Council registration scheme is not acceptable). Administrative practice has not been consistent, and at some times the scheme has been given official support, while at others instructions have been issued for its discontinuance or for discouragement of expansion. Present practice is to give the scheme cautious support, but there is considerable doubt as to whether the council by-law which established the scheme is legally valid, or whether councils have the power to make by-laws on such matters. To date, the question has not been tested at law.

A [See Category 657, pp. 89-96--Analyst]

423 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening [241] areas of individuals. People frequently plant food crops on the [613] land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:778.

APPENDIX A

The Higaturu Local Government Council Land Registration and Coffee Processing Schemes

657 The Higaturu Local Government Council was formed in April, 1956. It serves 12,000 people who belong to the southern Orokaiva culture group of the Northern District of Papua, and has 54 councillors to represent its 86 villages (of which Inonda is one).

Land registration

657 423 [241] In the first year of the council's operation the Native Affairs officer who was responsible for supervising council affairs initiated a system of registering with the council all lands which were being used for cash crops. In practice, persons wishing to plant cash crops under the scheme applied to the supervising officer, who thereafter made a chain and compass survey of the land concerned, in the presence of the elders of the landholding clan. The councillor for the area also attended. A written declaration was made and witnessed by the clan elders, the local councillor, the applicant and the Native Affairs officer. The declaration allotted the land to the applicant and stated that he could thereafter transfer it or nominate heirs to it, without further reference to the clan or other group. The land described in the declaration was then entered in a register by the council clerk.

[241] During 1957 after about 150 blocks had been registered, the acting District Commissioner ordered that the scheme be stopped on the ground, it is said, that it did not conform to traditional practice. No statement of policy was issued, but no further registrations were made for nearly three years. The people were uncertain of the status of the registrations which had already been made but coffee planting continued throughout. In fact, the man who was then District Agricultural Officer considers that there was more planting during 1957-60 than either before or since.

It is understood that the main issues at stake were (a) whether the scheme constituted a modification to custom or

whether it merely provided facilities for recording customary land allocation; and (b) whether or not a council had the legal right to undertake the scheme at all. The answer to the latter question is really dependent on the answer to the former. This in turn depends on the legal definition of what constitutes custom, for if the scheme is considered to be in accordance with custom then it is legally valid, whereas if it is not in accordance with custom it is invalid. Various opinions have been expressed, but in the absence of clarifying legislation or a test case the matter remained one for administrative discretion.(1)

During 1958 the council passed a rule (Rule No. 4 of 1958) which required that before any man could plant cash crops, he had to obtain the approval of the leaders of the relevant clan or clans. This rule was disallowed by the Administration. In 1959, a new rule was adopted (Rule No. 2 of 1959) which stated in the preamble that "...tree crops should only be planted after notice has been given to the District Officer or District Agricultural Officer...so that help can be given efficiently in such things as transport and marketing and in control of pests and diseases. It is also necessary that future quarrels over land be avoided and that each man should feel secure in the knowledge that the benefits of the work he puts into his crop will come to him." The rule provided that no person could plant coffee or cocoa except on land which had been allotted to him by custom "to be used by him alone." Planting was not to commence until a chain and compass traverse had been made by an officer of the Department of Native Affairs. The rule was approved and implemented, though due to staff shortages it has not been possible to meet the demand for surveys, and planting generally precedes survey in fact.

While the rule itself made no provision for it, the draft form of agreement stated that the holder of land registered under the rule could transfer his rights to any indigenous person at any time. The Administration advised the councillors that this provision for transfer was not acceptable and a new form of

(1) The Lands Commission Ordinance 1962, which was amended to in April 1963 after this paper was written, makes it clear that councils will no longer have the right to engage in such schemes. It is nevertheless possible for the Commission to investigate and nullify the registrations made by the council.

agreement was drafted and adopted. It reads as follows:

"Agreement to the right of land use.... It has been agreed by the people of [name] clan (or village) and all other interested parties that [applicant's name] has had allocated to him by native custom for his use alone the land marked on the attached plan, and that no other person has a claim to the land. It is also agreed that any coffee trees planted by [the applicant] on the land are his sole property and no other person has claim over them."

The form is dated, signed by the allottee and by "the clan leaders" (in practice it is usual for all resident adult males in the "owning" clan or sub-clan to sign), and by the local councillor. It is witnessed by an officer of the Department of Native Affairs. A map of the land is attached to the form. Forms and maps are prepared in triplicate and one set was to be held by the applicant, one by the council, and one by the District Office in Popondetta. In practice, the council copy is also held by District Office.

Registration under this new rule commenced in 1960, and surveying and registration of plots have continued to the present time. At 1st January, 1963, 588 plots covering 1,120 acres had been registered. A further 1,029 applications for registration had been made but not yet dealt with. Although it was originally intended that no plot would be registered if it was less than two and a half acres in area, many smaller plots have in fact been dealt with and the registered plots at Inonda village measure 1.4, 2.6 and 1.6 acres respectively (though these areas have not yet been fully planted). Some areas of under one acre have been registered. Wherever possible, villagers are encouraged to allocate blocks contiguously, not only to facilitate surveying and identification of land, but also to reduce the extent of border clearing necessary, and to facilitate pest control and extension services.

Provisions for ensuring higher standards of husbandry and output are contained in Rule No.3 of 1959 which requires that persons with cash crops must:

"(a) ... keep the land clear of all rubbish

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer....."

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

The question of inheritance of rights to land registered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

The aim of the registration scheme is to promote the planting of cash crops on individual plots with some security of

tenure. Registration is of doubtful legal validity, but to the extent that the Orokaiva people accept it as binding (and they appear to do so unreservedly at present) it functions in practice. Although no public statement has been made on future policy to be followed with regard to the scheme, the Land (Tenure Conversion) Bill 1963, would, if it were made law, enable the Lands Commission to issue freehold titles to replace the existing documents issued by the council.

Subsidiary developments

An interesting development took place in February 1962 when the people of Hohorita (which is within the council area) devised a scheme of consolidating their fragmented holdings on an area of land which they wished to set aside for cash cropping, and registering the lands allotted to each individual with the Higaturu Council. Their plan grew out of their experience of the council registration system (the most prominent leader of Hohorita, Councillor Brian, is president of the Higaturu Council) and of a visit of Hohorita leaders to the Yega project at Beporo. The Yega project involved the voluntary division of certain clan lands among individual clan members for cash cropping.(1)

The Hohorita plan was presented to officials of the departments of Native Affairs and Agriculture in Popondetta. They are said to have been sympathetic and to have appreciated the advantages of such a system whereby consolidation would be effected by the people themselves and registered (in the early stages at least) with their own council. Not only time and expense would be saved by the people undertaking the operation themselves, but an opportunity was thereby provided to rationalize the tenure system with the full co-operation of the people concerned. The Hohorita people have since been advised on instructions from headquarters that they are not to proceed with their proposal though consolidation may be arranged by the Lands Commission at a later date on their behalf. Popular

(1) The Yega project is described in detail in a paper by R. R. Dakeyne which will be published in a subsequent issue of this Bulletin. The visit of the Hohorita people to Yega was sponsored by officers of the Department of Agriculture.

support is an essential prerequisite to land reform in a democratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

From its inception the council expressed the view that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

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(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

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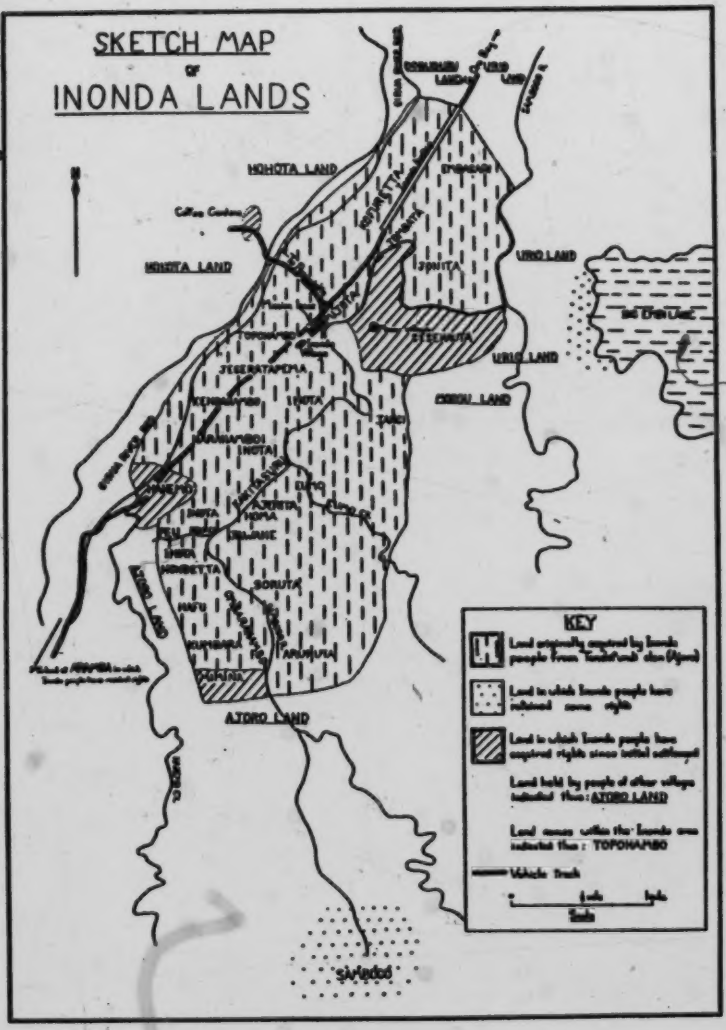

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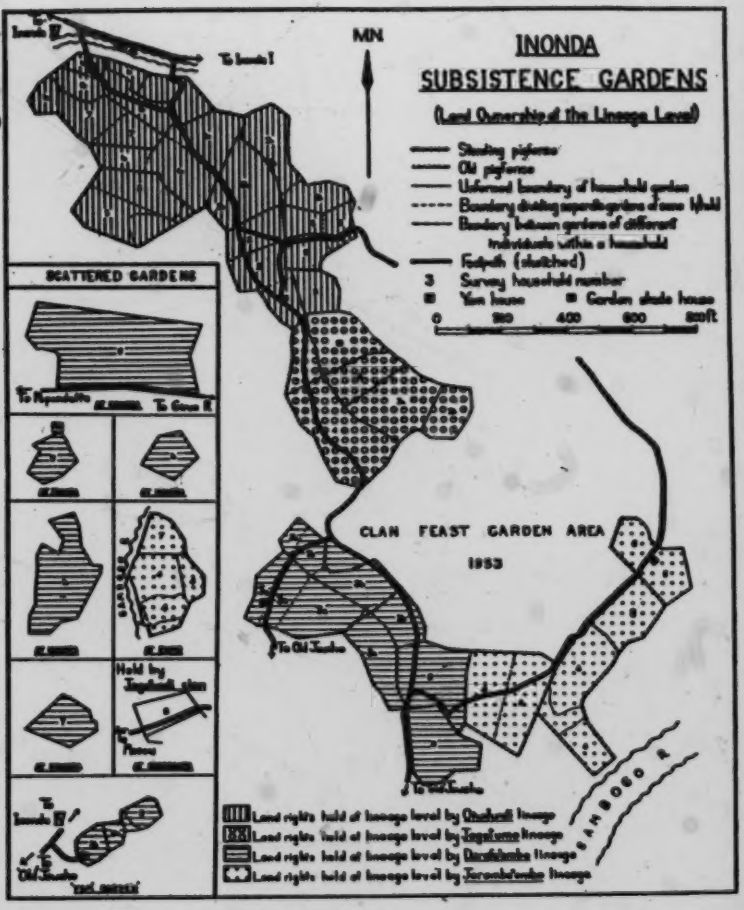

marketing or the more intricate techniques of production. It does suggest, however, that they have a sufficiently clear conception of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

Most Orokaiva men established their cash crops on customary land to which they have acquired rights by inheritance from their fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

A had cleared bush land and planted coffee at Garara where his close kin had been permitted to resettle in the late 1920s. Though the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for registration of his land under the Land (Tenure Conversion) Ordinance 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6) they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda
[361] is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

241 Later again, in line with an agricultural officer's recommendation,
422 he encouraged each son to plant individually. He proposes that his
542 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [62] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
465 to pay hired labour, and are thus forced, willingly or not, to exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	702
B	-	-	-	-	-	-	
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	1,800
F	300	46	100	446	C	9	
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	168
J	intends to plant	-	-	-	C	-	
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in the Northern District of Papua in which land previously held under 423 customary tenure has been converted to registered individual title in accordance with the Land (Tenure Conversion) Ordinance 1963. Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from official files. Where recorded information was not available, 124 estimates based on interviews were used. The body of the Ombi-Tara data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During 122 these periods my assistants and I lived in the single men's house in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were 115 interviewed with the exception of one old man. In addition we interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Mumu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only be as good as the questions asked. Although we followed up all answers with probes and long, informal discussions, talking is a poor substitute for rigorous and sustained observation over a [121] period of years. The only justification for using this method is that time was short, and that this paper is intended only as an exploratory attempt to examine the operation of the 1963 land tenure conversion legislation in the only district where it has so far been applied.

Chapter 1

Introductory

657 The first legislation aimed at encouraging Papuans to engage in
654 cash cropping was introduced in 1894 by Lieutenant-Governor MacGregor
241 six years after the beginning of the British administration in Papua. Nevertheless, policy was mainly directed towards the promotion of European enterprise until after the 1914-18 war, when the difficulty of attracting European settlers to Papua caused a shift towards promotion of indigenous agricultural development.[1] At first communal cash crop gardens were promoted but as the disadvantages of this system became known,[2] emphasis shifted to encouraging each family to cultivate an area of cash crops separately. Cheetham (1962:68) states that this policy was clearly established by 1956.

657 An ad hoc committee was established in November 1956 to consider
423 the conversion of land from customary tenure to individual freehold title.[3] The committee submitted its report in 1957 and there followed a period of research and discussion, culminating in the policy statement on land tenure in the House of Representatives on 7 April 1960 in which the Minister said:

> (1) The ultimate objective was to introduce a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
>
> (2) Only the central Government...may issue and register land titles.

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[1] On the history of official policy on agricultural development see Crocombe 1964a.

[2] See Crocombe 1964a:33-7.

[3] Land under 'customary tenure' includes 97 per cent of the total area of Papua-New Guinea. The Administration has purchased 2.5 per cent of the total area, and non-indigenes have freehold title over 0.5 per cent.

657
423 (3) Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by ordinance of the Territory, of conversion of title to an individual registered title. (Hasluck 1960:1021.)

Five bills embodying the new land policy were passed by the Legislative Council in 1962-63. The most significant of these from the point of view of the individualisation of tenure were the Land Titles Commission Ordinance 1962 under which the old Native Lands Commission was replaced by the Land Titles Commission, and the Land (Tenure Conversion) Ordinance 1963 which sets out the procedures to be followed in tenure conversion (see Appendix A). The Land (Tenure Conversion) Ordinance 1963 was brought into operation on 3 December 1964. It embodied safeguards against fragmentation in that no land which is less in either area or frontage than a certain minimum may be registered, and no more than six persons may be registered as joint tenants or tenants in common of any interest in land.

The five current ordinances relating to land allow village people holding land under customary tenure three alternatives. First, they may continued to hold the land under customary tenure. Second, where a group has undisputed control of a piece of land and desires a more formal recognition of its rights it may secure title under native custom by having the land registered as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962. Third, individuals or groups of not more than six persons may apply to convert land previously held under customary tenure to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963. This action may only be taken with the approval of all those holding customary rights in the land to be converted, and where all clearly understand that the land is being placed outside the jurisdiction of traditional custom.

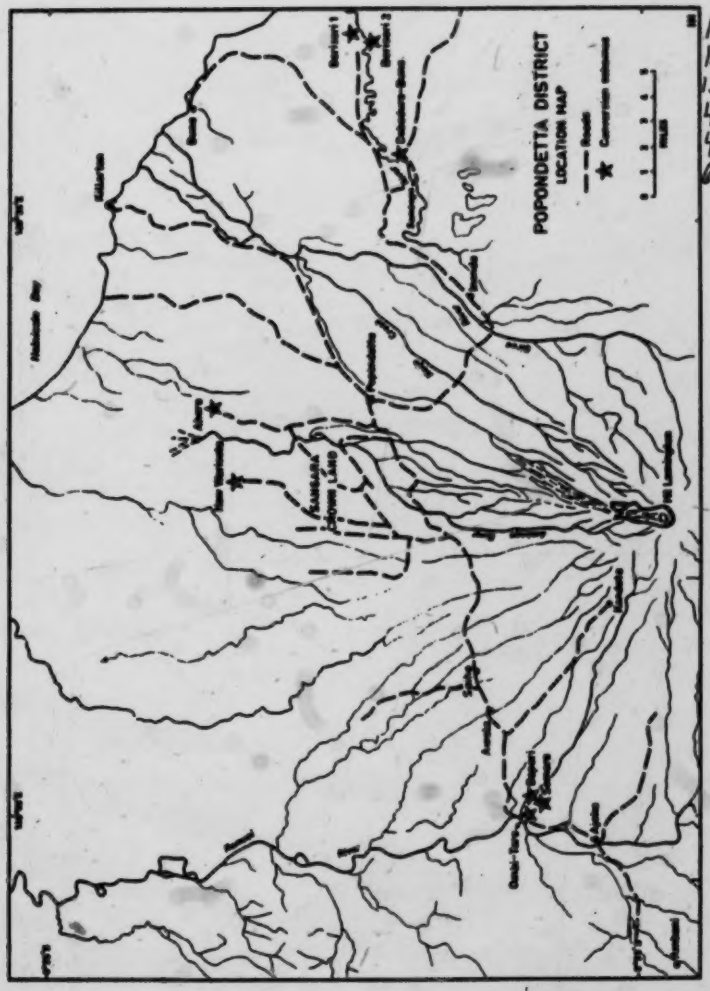
Land tenure

423
614 Among the Orokaiva there are no land rights at the tribal level. Each tribe is divided into a number of clans, each of which is further composed of a number of sub-clans, which are usually dispersed over the tribal territory. Each sub-clan holds rights to specific areas of land. Within the sub-clan rights are held by individuals and groups of individuals.

Thus the traditional Orokaiva system was not one of 'communal tenure' and individuals as well as groups held rights to land.[1]

[1] Ironically, it appears that by registering areas of land as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962 the Administration is introducing communal holding of land where it did not exist previously.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara



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423 614 This has been documented by recent research carried out in three Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] [241] Under the traditional Orokaiva tenure system most individuals have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 311 241 476 Clearing of bushland is often a community affair, with the lineage and sometimes the whole sub-clan co-operating, but planting is organised by individual households, with some reciprocal assistance from other households for specific tasks at irregular intervals.

Land use

241 311 The Orokaiva grow their crops using a system of bush fallow rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 [592] [621] [614] The Orokaiva live in villages but each nuclear family usually occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual protection (Williams 1928:155). However, in 1928 Williams noted a growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Post-war tenure innovations in the Northern District

657 654 423 The Higaturu Local Government Council land registration scheme, begun in 1956, was one of the earliest attempts to rationalise tenure in the Northern District and to increase agricultural productivity. Under this scheme all lands on which cash crops were being planted were to be registered by the Council after a survey by chain and compass. The individual in whose name the land was registered could transfer it or nominate heirs to it without reference to the clan or any other group. The scheme was superseded by the tenure conversion legislation of 1962-63.[1]

A second post-war tenure innovation in the Northern District was the Yega agricultural scheme[2] under which in 1960 a group of villagers agreed to set aside a portion of uncultivated land for use by individual members of the group. External boundaries were agreed upon and individual blocks were marked out and plotted. The 1962-63 land legislation has enabled persons holding title under native custom to convert to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963 and on 16 December 1965 fifty-six applicants from Yega were granted individual titles to blocks averaging ten acres in area (Smith 1965).

No conversions were made under the 1962-63 legislation until late 1964. Following a recommendation from the Land Development Board it was decided that conversion under the new legislation should be confined in the first instance to the Northern District in order to test and refine procedures. Applications for conversion were being received at a rate of over one hundred per month in the Northern District during 1965. At the end of December 1965, thirty-four tenure conversion schemes[3] were under way in the Northern District, covering 1,725 blocks (i.e. farms) and 33,566 acres. By 10 February 1966 Land Titles Commission hearings had been completed for five schemes, covering 219 blocks and 4,328 acres.[4]

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1 (continued)
361 themselves in small groups over the face of the country is growing in the land.' Feinberg (1956) suggests that the tendency to spread in this way is common in recently contacted societies.

1 For details of the Higaturu Council registration scheme see Crocombe and Hogbin 1963:89-96.

2 For a detailed discussion of the Yega scheme see Dakeyne 1965.

3 Each of which comprised up to sixty or more blocks (each of which would become one farm).

4 In addition, 120 blocks (3,148 acres) had been formally surveyed; 269 blocks (2,960 acres) were awaiting survey; and 596 blocks (12,570 acres) were awaiting investigation by officers of the Department of Agriculture.

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621] [614] Ombi and Tara contain two clans, Musu and Kusi. The Musu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Musu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 40ff.--Analyst]

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

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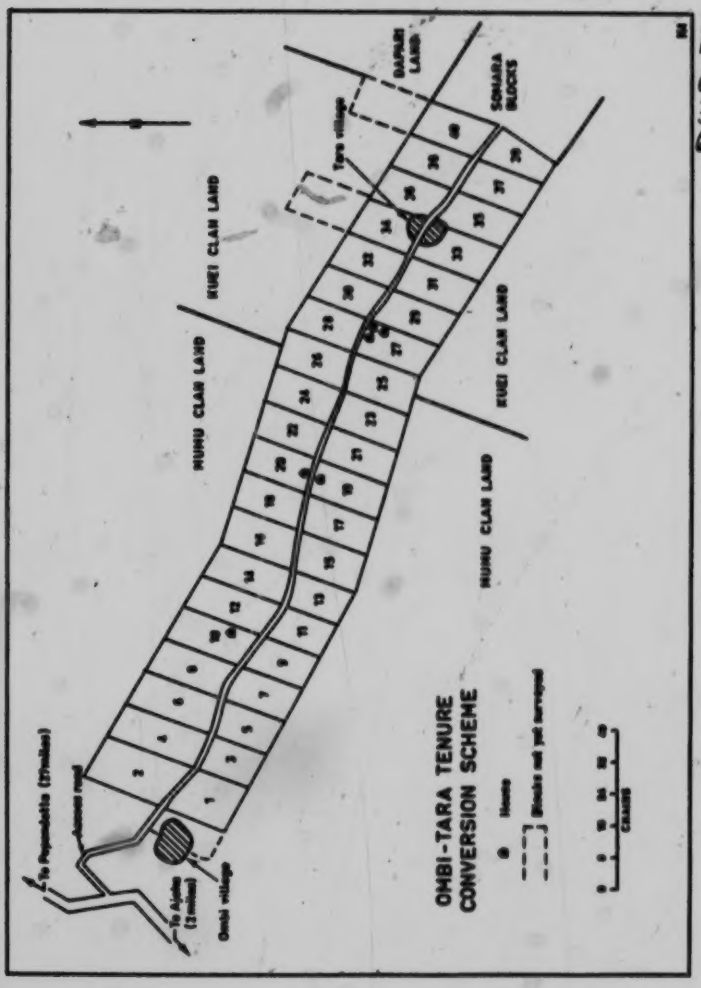

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242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal cocoa experiment. At these meetings the Agricultural Officer
[423] suggested that each man might plant some of the new high yielding
[425] rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

657 abolished by agreement of the two Ombi-Tara clans,[1] including both
423 rights to the 800 acres which have been converted and to land
425 remaining outside the scheme.
614 Each twenty acre block is now held under individual registered title by one man, the blockholder. No rights are held in any block by the clans or other entities.

Lands held by members of the Mumu and Kuai clans are still separate, and a large tree stump continues to mark the boundary between them. However, while individuals formerly had some rights in clan land held under customary tenure the land outside the conversion scheme is now held communally by agreement of clan members.[2] The clan leader has control of the unconverted land and his approval must be gained by anyone wishing to cultivate it.

However, each man is considered by the villagers to have the presumptive right to clear the bush on unconverted land behind his block in order to extend his planting as far as the clan boundary. He may do so without consulting the clan leader, and regardless of who held rights to the land under the old system. This right is not recognised in law, and appears to be derived from traditional practice. A similar presumptive right of extension at the rear of one's block was agreed upon by the Yega villagers (Dakeyne 1965:136).

The conversion process

657 The Department of Agriculture carried out a preliminary survey
423 of the land to be converted in July and August 1964, clearing bush from what was to be the access road and along the boundaries of the blocks. During December 1964 and January 1965 field staff of the Land Titles Commission, assisted by Department of Agriculture personnel, completed the surveying and marked all corners with cement and wooden pegs.

657 Thirty-five applications for blocks had been formally lodged up
423 to 9 February 1966 when the Land Titles Commission conducted its
425 hearing. No objections were raised so unless there is an appeal within ninety days, individual title in fee simple would be granted to each of the thirty-five on 9 May 1966.[3] Eight more men wished to apply in the near future. Since only forty blocks were marked out, three of these eight men intended to apply for blocks as yet unsurveyed.

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[1] See p.27 ff for some problems raised.[A]

[2] In law it is regarded as being held under 'customary tenure'.

[3] There were no appeals. Titles had not been issued at the beginning of November 1966, but it was expected that they would be issued soon.

A [See Category 423--Analyst]

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
● 423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kuei clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Musu clan was given a block on Kuei land, reportedly because of a shortage of Musu land. The Kuei clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Musu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.C.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

Security of tenure

423 241 [182] [829] It is often suggested that the main benefit from tenure conversion is the provision of security of tenure for villagers who wish to plant cash crops. The Ombi-Tara people, however, did not consider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocoa and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds. [578] Fourteen people did mention that conversion and the introduction of cement and wooden corner pegs would help to prevent disputes; but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 311 361 [829] Most Ombi-Tara people saw consolidation of their previously scattered holdings as the main benefit from tenure conversion.[2] Many people drew finger diagrams on the ground to explain how conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the new tenure system. Interclan co-operation is seen in the leader
182 of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Musu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

659 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Musu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
177 of the savings account, said that they had first heard of blocks through the Sangara ex-servicemen's resettlement (not conversion) scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
[185 which many Ombi-Tara people find attractive. Several people sug-
461] gested that they would like to employ labourers and work less hard themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Manuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:5): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

659 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

659 423 182 [361] Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at
a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built
houses on their own blocks on either side of the access road. In
addition, they have built a 'meeting house' in which passers-by
can sit and chat, and a latrine. One is the son of the other's
mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

657 The Local Government Councillor presumed the Administration
423 wanted people to stay in the village. He said that he would prefer
182 to live on his block but would not move as he might be gaoled for
361 doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 The land tenure system lies at the heart of social organisation
423 and 'may actually define the social and economic status of indivi-
182 duals in an agrarian economy' like that of Papua-New Guinea (Parsons 1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

657 423 182 been at Ombi-Tara, in favour of briefer parties which distract less from market oriented activities.[1]

[829] There was verbal evidence at Ombi-Tara of further rejection of old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] [554] Leadership in the traditional societies of Papua-New Guinea is generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It [614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance [556] in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] [627] The functions of the clan leader are little changed by the new tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

591 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A1

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A1 [See Category 425--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the
[178] traditional Orokaiva inheritance pattern, under which the first son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.
[462]

[464] Five men were employed on maintenance work on the Popondetta-
[465] Kokoda road near Ombi for the full period of our stay, receiving $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
177 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.A

A [See Category 423--Analyst]

657 initiated and hence are not party to the agreement to set aside 800
423 acres for individual holdings. Problems could arise if, on return-
177 ing home and finding all forty blocks occupied, they should refuse to accede to the new arrangements. It also remains to be seen whether the man of Mumu clan whose block is on Kuni land will be permitted to extend his holding beyond the present twenty acres. The leader of the Kuni clan suggested to us that this would be allowed.

Concepts of title. While everybody interviewed said that the blocks belong solely to individual blockholders it remains to be seen whether in future all people will be prepared to cede to the blockholders all rights which they previously held in the converted area.

There was considerable confusion concerning the exact time that the blocks became the property of individual holders. Most people considered that this occurred immediately after the application forms had been signed, while some thought it was as soon as survey had been completed and others thought it was after the blocks had been distributed. Nobody realised that the block did not legally become his until ninety days after the Land Titles Commission hearing.

No one understood the purpose of the Land Titles Commission hearing. A genealogy was prepared in the hope that this might be required by the Land Titles Commissioner. At the hearing, the Commissioner read out the names of the thirty-five applicants and asked each applicant to call out the number of his block. The Commissioner explained that he would send a list of the applicants' names to Port Moresby and after ninety days each man would get a pas[1] - the title document - saying the land was his.

After the hearing the Ombi-Tara people indicated in conversation that they thought the Commissioner had come to check that each man knew the number of his own block. They considered that the piece of paper which they would get merely confirmed that each man held his own block as he had done for the past seventeen months. This lack of understanding by the villagers of the true function of the Land Titles Commission hearing could be significant if objections to conversion were raised at the hearing.

657 Development of a market in land. The Administration hopes, by
423 converting land from customary tenure to holding under individual
425 registered title, to facilitate the development of a market in land. This is essential to ensure that no person with agricultural ability and initiative is deprived of land. It has been pointed out by

[1] A neo-Melanesian word meaning 'letter'.

657 Lord Hailey (1957:802) in Africa that people showed great reluctance
423 to face commercialisation of land rights, by sale, mortgage or lease.
425 I cannot say how far conversion will contribute to the development of a market in land as it is not clear whether the Ombi-Tara people understand that in law each man may sell his block to anyone he wishes. An attempt was made to gauge this with three questions.

> If any man from Ombi wanted to sell his land and go and live in Port Moresby, is he allowed to do that?
>
> Would he have to discuss it with somebody first?
>
> What if the clan leader said 'no': could he still sell it?

Five people, including Charles and the two clan leaders, replied that individuals could dispose of their blocks without consulting anyone, even if the clan leader opposed the sale. Ten more said that a man was allowed to sell his land but would have to discuss it first, and could not sell if the clan leader was in opposition. The remaining twenty-five said they could not sell or did not know whether or not they could sell. A common reply was that no one wanted to go and live in Port Moresby but that if anyone did go he would leave the land in the care of his son or some other kinsman.

657 Cash crops planted before conversion. There are a number of
423 cases at Ombi-Tara where cash crops planted by one man before conversion are now situated on another man's block. The usual solution to this problem has been for the planter (or in the event of his death, his heir) to retain sole rights to the crop. When the trees die out the land will revert to the blockholder, and the planter may not plant more trees on the same land.[1]

There have, however, been some variations from this solution. Where the crop concerned was cocoa the planter has in many cases abandoned it, allowing the blockholder to clear it and plant rubber. In one case sole rights to the cocoa will be retained by the planter until the rubber begins to yield a return in about seven years, when rights to the cocoa will be ceded to the blockholder. In another case the cocoa is jointly harvested with planter and blockholder sharing the income received from the sale of beans. Each of these solutions was worked out by negotiation between the persons concerned, and appears to have been determined largely by considerations of kinship and mutual obligation.

The existing situation contains potential difficulties. The blockholder, or his heir, may decide that he needs the land on

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[1] This seems to follow traditional Orokaiva practice, as described by Dakeyne (1965:61): '...the right to harvest the produce of a permanent tree is vested in the planter or his heir, irrespective of the rights to the land on which the tree is planted.'

657 which the planter's crops are standing and may wish to cut down the
423 trees. Where the planter's crop is coffee, the trees may reseed so that the grove may not die out, and the planter may retain a semi-permanent right to portion of the blockholder's land. If the coffee does die out, the planter may still be able to make out a case that he has a continuing right in the land, claiming that when individual title was granted in 1966 the blockholder recognised his right to use part of the block for coffee growing. Similar problems may arise where one man has built his house on another man's block. Eight of the nine houses of Tara village, and two of the houses in the hamlet located forty-five minutes' walk from Ombi are situated on blocks belonging to persons other than the householder.

Multiplicity of rightholders. While it is theoretically possible to provide against more than one person holding rights to converted land by appropriate legislation, there is no simple way of preventing de facto multiple rightholding since no law can prevent the villager from meeting his moral obligations to his relatives. It would not be unique to Papua-New Guinea if multiple rights to land should exist despite legislation forbidding them.[1] In Tahiti, land rights are still passed on to illegitimate children although this is against the introduced law. Land fragmentation in Tahiti after the legislation to individualise tenure is worse than it was previously (Panoff 1964:136-9). In the Cook Islands the attempt to individualise tenure was followed paradoxically by a significant increase in the number of rightholders per acre of land (Crocombe 1964b:127).

We saw earlier that most Ombi-Tara people wish to continue their traditional pattern of inheriting rights to land and that there are signs that traditional obligation patterns may be continuing. The effect of these factors on the number of rightholders per block, and therefore on the achievement or otherwise of the policy of individualising tenure, may be significant in future.

Planting before title is granted. Planting of rubber on the blocks at Ombi-Tara began in September 1964, twenty months before title was due to be granted. Planting of rubber is continuing on the four demarcated and three undemarcated blocks which have not yet been formally allocated.[2] Planting before title is granted is

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[1] The existence of multiple rights and the spreading of an individual's usufructuary rights over several pieces of land may, if land is of uneven quality, equalise people's shares in the agricultural potential of an area. Consolidation of holdings in such areas tends to have the reverse effect.

[2] Two of the undemarcated blocks are situated immediately behind demarcated blocks (see the conversion plan). This may cause difficulties if the holders of the demarcated blocks exercise their

A [See Category 102, p. 12--Analyst]

657 also likely to occur if any of the blockholders decides to extend
●423 his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

1 See p. 6. A
A [See Category 241--Analyst]

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] [464] [177] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash-crop gardens, thus increasing labour

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[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

productivity. Consolidation of an individual's scattered plots reduces the amount of time devoted to travelling and increases the acreage which can be planted with cash crops in any one location. The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

Consolidation has facilitated the provision of assistance by Department of Agriculture staff, increasing the effectiveness of officers. Planting, pest control and general crop maintenance can be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

Tenure conversion appears likely to enable economies of scale when the rubber trees come into production, hence increasing the productivity of village labour. Economies may be gained in processing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

657 to be effective, must be associated with improvements in technical
423 skills and the provision of credit, transport and marketing facili-
182 ties. That individualisation of tenure does not necessarily lead
433 to improvements in productivity has been demonstrated in many areas including South Africa (Yudelman 1965:239), Ongoho in the Northern District of Papua (Crocombe 1964a:36), and the Cook Islands, where Crocombe (1964b:142) concluded that

> the issue of registered freehold titles by the Land Court of itself made little if any contribution to output in the early decades of the century and of recent years has had a negative effect.... Security of tenure must also be complemented by other measures if major increases in productivity are to result.

Tenure conversion at Ombi-Tara has enabled labour inputs in the establishment and maintenance of the rubber plantations to be reduced and appears likely to lead to economies of scale when the trees come into production. Conversion has facilitated, and has been complemented by, increased agricultural assistance. These factors together have contributed to the increase in cash cropping activity and improved labour productivity at Ombi-Tara.

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

657 (iii) As was the case before conversion, a man whose crops stand
423 on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] (vi) Residence patterns appear also to be in accordance with
[178] traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 Even if tenure conversion alters the tenure system less radically
423 than expected, it is still possible that it may act as a stimulus
182 to indigenous agricultural development. The acreage under cash
433 crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

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I am unable to determine how far tenure conversion will facilitate the development of a market in land.

Several problems apart from those considered under the individualisation of tenure may arise from tenure conversion as it operates at present. The villager's concept of individual registered title appears to differ from that of the framers of the tenure conversion legislation. There may be future disputes over rights to cash crops planted before conversion now situated on the block of a man other than the planter. Because of the long delays required by the conversion legislation, planting of cash crops has preceded the granting of individual title by up to twenty months, which could be significant if objections to conversion were raised at the Land Titles Commission hearing. The consolidation of holdings implies the cessation of the traditional bush fallowing system of cultivating food crops, which may lead to problems of pest infestation and declining soil fertility. A lack of credit facilities could hamper efforts to increase cash cropping at some tenure conversion schemes, particularly those requiring large capital outlays for processing, transport and marketing. This is not, however, a current problem at Ombi-Tara.

The Ombi-Tara people regard conversion, which they perceive as consolidation, as the road to improved standards of living. While this faith is retained there seems every chance that conversion will succeed in raising agricultural output. Continued faith will probably depend on the extent to which the expected improvements in terms of living standards and income are in fact achieved.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

Appendix A

Process and costs of tenure conversion in the Northern District

121 This Appendix attempts to estimate roughly the economic costs of tenure conversion. Land tenure conversion can only be justified if the economic and social benefits to be derived from it exceed the economic and social costs of its execution. Information is not available to allow comparison of costs and benefits from alternative methods of promoting agricultural development.

Procedure

659 423 The procedures to be followed in converting land held under customary tenure to individual registered title are set out in the Land (Tenure Conversion) Ordinance 1963 and the Land Titles Commission Ordinance 1962. The country is divided into a number of 'adjudication areas' and within each a 'demarcation committee' (with a majority of indigenous members) is established to prepare demarcation plans marking the boundaries of all native held land within the area. If a group is acknowledged as the undisputed holder of an area of land, members of the group may apply to hold portions of the land under individual registered title.

The Land Titles Commissioner prepares a conversion plan and publishes notice that the application will be dealt with after three months, during which time objections may be lodged. If he is satisfied that all persons with rights in the land agree to the application and that adequate compensation is provided for interests abolished or reduced by conversion, the Commissioner issues a conversion order. Ninety days is allowed for appeal and thereafter the conversion order is sent to the Registrar who registers the applicant as the owner of an estate in fee simple. Upon registration of individual title the land ceases to be subject to native custom and all previously existing rights are abolished.

The procedure followed in the Northern District differed from that laid down in the Ordinance in that conversion began there over a year before adjudication areas were mapped out (in January 1966) and no compensation was paid to persons losing rights to land - nor has any been requested by villagers.

657 423 The procedures which operated from the introduction of tenure conversion in the Northern District are summarised in Appendix B. Procedure was altered by Circular 31.1.9 from the Administrator to all field officers, dated 3 November 1965. Since all tenure conversions up to 1 January 1966 were carried out under the old procedure this has been used as the basis for the following cost estimates.

Method of estimating costs

[128] An attempt was made to gather information on eight conversion schemes in order to estimate the costs of tenure conversion in the Northern District. The stage of development reached at these eight schemes by 9 February 1966 is set out in Table 1. All except the Dapari scheme were among the first ten conversion schemes promoted, and consequently are among the most advanced conversion projects in the country.

Table 1

The state of eight tenure conversion schemes at 9 February 1966

Name of scheme	Blocks	Acres	Crop	Stage of progress
Barisari No.1	55	1,680	coconuts	Hearing completed for 47 applicants on 29 Sept. 1965. Applications filed for other blocks.
New Warisota	32	640	cocoa	Hearing completed 14 Dec. 1965.
Ahora	36	720	cocoa	Hearing completed 28 Jan. 1966.
Ombi-Tara	40	800	rubber	Hearing for 35 applicants completed 9 Feb. 1966.
Somara	10	200	rubber	Awaiting conversion plans to accompany applications.
Barisari No.2	7	210	coconuts	Awaiting conversion plans to accompany applications.
Dobadura-Buna	63	1,260	coconuts	Awaiting applications.
Dapari	44	1,000	rubber	Land Titles Commission survey in progress.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

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The costs in salaries of each stage in the conversion process were estimated separately. The number of days[1] spent by an officer on a particular task was converted into the number of days needed per thousand acres and per hundred blocks. Salaries assumed for costing purposes are set out in Table 2.

Although every effort was made to cross-check all information on costs, the figures represent an approximation only. Where possible Field Officer Journals were consulted to determine the number of days each officer spent at a particular scheme. Otherwise estimates were made from discussions with officers concerned. The number of vehicle days in each stage was estimated from the rest of the data.[2]

Salary costs of each stage of the conversion process

(i) Preliminary discussions. Officers of the Department of Agriculture, Stock and Fisheries (D.A.S.F.) or sometimes the Department of District Administration (D.D.A.) are approached by village people who request a tenure conversion scheme for their area. Discussions follow on the nature and implications of conversion. This involves two days each for an Agricultural Officer and his assistant. The number of days spent by officers does not vary with the size of the scheme.

(ii) D.A.S.F. investigation. Agricultural Officers investigate and submit a report on accessibility, names of neighbouring villages and schemes, topography, soil type, vegetation, people's attitude to conversion, crop recommendation and a recommendation concerning priority to be given to the scheme. Estimated time at Ombi-Tara was four days each for an Agricultural Officer and assistant.

(iii) District Development Committee meeting. The D.A.S.F. report goes before an informal meeting of the District Development Committee which allocates priorities for further investigation. Tenure conversion is only one of the committee's many spheres of

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[1] Based on 219 working days a year for expatriate officers, being 365 days less forty-five days leave (overseas officers are entitled to three months leave after twenty-one months' service), less ninety-one Saturdays and Sundays, less ten statutory holidays. Local officers receive three weeks annual leave and hence have 236 working days.

[2] 'Vehicle' is used in this appendix to include vehicle and driver unless otherwise stated. A full day for vehicle and driver was assumed if the officer requisitioning the vehicle spent the whole day at a scheme and returned the same evening. A half day was assumed if the officer was left at the scheme and the vehicle returned to Popondetta.

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Table 2

Salaries (and allowances) assumed for costing purposes*
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	Annual salary	Salary assumed	Allowances added**	Total	Cost of one man-day
Land Titles Commissioner	6,050	6,050	818 +360***	7,228	33.0
Field Officer - L.T.C.	2,084-2,388	2,336	818	3,154	14.40
Field Assistant - L.T.C.	440-760	600	-	600	2.54
Agricultural Officer, grade 1	2,106-3,814	2,960	818	3,778	17.25
Asst. Agric. Officer	720-1,000	860	-	860	3.64
Agric. Assistant	440-760	600	-	600	2.54
Farmer Trainee	172	172 (incl. rations $133)	-	172	0.73
Asst. District Officer, grade 1	4,058-4,324	4,196	818	5,014	22.89
Interpreter - Dept of District Admin.	440-760	600	-	600	2.54
Clerical Assistant	440-760	600	-	600	2.54
Draftsman, grade 2	3,814-4,058	3,936	818	4,754	21.71
Clerk	2,838-3,326	3,082	818	3,900	17.81
Driver	440-760	600	-	600	2.54
Vehicle	($0.70 per hour = $5.60 per day)				

Camping allowance (per night in the field for all except Farmer Trainees)

expatriate, single	1.05 per day
expatriate, married	2.00 per day
local, single	0.45 per day
local, married	0.75 per day

* Salaries and allowances are as listed in the Public Service (Salaries and Overtime) Determination 1964 and the Public Service (Overseas Officers' Allowances) Determination 1964. Most second division salaries were increased by 1½ per cent during late 1965. These increases have not been taken into account. Vehicle costs are official estimates.

** Overseas officers receive an Overseas Allowance ranging from $500 to $960 per year depending on marital status and length of service, and a cost of living allowance of $370 per year. They are required to pay $52 per annum as contributions to the cost of child allowance payments. Therefore, assuming that the minimum Overseas Allowance is applicable, $818 per annum has been added to the basic salary ranges of overseas officers for costing purposes ($500 + $370 - $52). One man in five is assumed to be married. Hence an extra $360 per annum or $1.64 per man-day has been added when costing one-fifth of the man-days involved in conversion.

*** The Commissioner is assumed to be married.

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423 interest and the time it spends on conversion has not been included in these cost estimates.

(iv) D.D.A. investigation. An officer investigates the ownership of the land to be converted. This involves walking around the boundaries of the land with representatives from the claimant clan or clans, and neighbouring clans. The investigator checks whether any persons are absent from the area to be converted and whether they are agreeable to conversion. He submits a written report. There was no D.D.A. investigation at Ahora, Barisari No.1 or New Warisota, all of which began before mid 1965 when the D.D.A. investigation was introduced. The figures for Dobadura-Buna were not available. The schemes at Ombi-Tara, Somara and Dapari were investigated jointly, and D.D.A. officers accompanied by Land Titles Commission surveyors spent two days there, but they spent five days at Barisari No.2.

(v) Survey. If D.D.A. findings are satisfactory, Land Titles Commission staff make a chain and compass survey of the scheme to a design approved by D.A.S.F. Block boundaries are cut with the help of D.A.S.F. staff and local villagers and corners are marked with cement and wooden pegs. A plan is prepared from this survey and reduced size duplicate copies are made.[1] Time involved in surveying includes that spent on preliminary discussions, preparations, obtaining supplies, travelling, surveying in the field, and plotting and mapping. The most reliable information is for Ombi-Tara and Somara. The estimates for most of the others are almost certainly an understatement. The relatively large differences in time involved at different schemes (Table 3) reflect partly differences in topography and density of vegetation.

During the twelve months to 5 October 1965 nine schemes totalling 294 blocks and 6,650 acres were surveyed. Excluding work other than conversion, a total of seventeen Field Officer months was worked in the period, giving on the average 17.3 blocks surveyed per Field Officer month. Two Field Assistants were employed throughout. Since requests for tenure conversion were being received at a rate of more than one hundred per month during 1965, a large backlog remained.

(vi) Completing applications. An Agricultural Officer obtains five copies of each of the Application for Registration, the conversion plan, and the statutory declaration by the Land Titles Commission surveyor, and assists the village people to complete their application forms. This is time-consuming as repeated visits are often required to locate people who were absent at the time of the first visit. This involves an estimated four days per thousand acres for an Agricultural Officer and nine for his assistant.

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[1] The Ombi-Tara conversion plan is reproduced on p.12.A

A [See Category 102--Analyst]

Table 3

Survey - man-days per 1,000 acres

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1. Salary and allowances

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	45	79	32	45	-	90	5
New Warisota	26	18	3	-	30	-	14
Ahora	27	27	3	27	27	-	11
Ombi-Tara	94	94	33	43	352	525	12
Somara	110	110	10	-	585	440	65
Barisari No.2	72	72	-	72	-	144	24
Total	374	400	81	187	994	1,199	131
Average	62	67	14	31	166	200	22

2. Camping

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	40	74	28	40	-	-	-
New Warisota	18	10	-	-	26	-	-
Ahora	21	21	-	21	22	-	-
Ombi-Tara	87	87	26	39	225	-	-
Somara	60	60	-	-	320	-	-
Barisari No.2	48	48	-	48	-	-	-
Total	274	300	54	148	593	-	-
Average	46	50	9	25	99	-	-

Abbreviations:

F.O. Field Officer, Land Titles Commission
F.A. Field Assistant, Land Titles Commission
A.O. Agricultural Officer
A.A.O. Assistant Agricultural Officer
A.A. Agricultural Assistant
F.T. Farmer Trainee
Veh. Vehicle

(vii) Processing applications. An Agricultural Officer spends about two days per 1,000 acres checking, amending and correcting all applications.

(viii) Registering applications. The applications are registered in the office of the Deputy District Commissioner by a Clerical Assistant who spends about one day per 1,000 acres.

(ix) Drafting notices of hearing. The applications are forwarded to the Land Titles Commissioner who makes out notices of the Land

657 423 Titles Commission hearing. This occupies the Commissioner for one day.

(x) Conducting hearing. After at least three months the Land Titles Commission hearing is conducted. This is usually accomplished in one day's work each for the Commissioner, a Field Officer and a Field Assistant.

(xi) Drafting conversion orders. Conversion orders are completed by the Land Titles Commissioner and if no objections are lodged within ninety days they are sent to the Registrar of Titles in Port Moresby. This takes the Commissioner about one day per 1,000 acres.

(xii) Drafting and registering titles. The applicant is registered as the owner of an estate in fee simple by the Registrar of Titles in Port Moresby. Three copies of each individual title are drawn up by hand by a draftsman in the Registrar-General's Branch, Department of Law. No individual title documents had been drawn up by the end of February 1966 but it was assumed that a scheme of 1,000 acres containing fifty individual blocks would require about fifty days for a draftsman and a clerk.

(xiii) Programming and progress reports. At different stages of the conversion process an average of four days is spent by Agricultural Officers organising, planning, checking on conversion schemes and writing progress reports.

(xiv) Total salary costs. The costs in salaries of the thirteen stages of the conversion process are summarised in Table 4.

Other costs

The total costs of conversion must include capital costs which are even more difficult to estimate than the recurrent costs.

(i) Staff housing. Assuming 1,000 blocks of twenty acres are converted each year,[1] we can make an approximate estimate of the staff housing requirement of the tenure conversion programme.[2]

Table 5 sets out the number of man-days spent on converting 1,000 blocks by those officers for whom housing is provided.

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[1] This assumption was made in estimating the funds required for tenure conversion during the five year period 1966-67 to 1970-71 (Department of Agriculture 1965:1).

[2] It was assumed in the D.A.S.F. plan that housing would be provided for all officers engaged on conversion except Farmer Trainees, interpreters, and drivers; and that one officer in five would be married. These assumptions are followed here.

Table 4

The process of tenure conversion - man-days per 1,000 acres and salary costs per 1,000 acres and per 100 blocks

Process	Man-days per 1,000 acres														Costing							Cost per 1,000 acres $	Cost per 100 blocks $
	Com.	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	A.D.O.	Int.	C.A.	Sec.	Clk	Veh.	F.O.	F.A.	A.O.	A.A.O.	A.A.	A.D.O.	Int.		
Prelim. discussions	-	-	-	2	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-		16	16
DASF investigation	-	-	-	4	-	4	-	-	-	-	-	-	1	-	-	3	-	3	-	1		24	24
DNA investigation	-	4	-	1	-	-	-	4	6	-	-	-	6	1	-	-	-	-	-	1		23	23
Survey	-	62	47	14	31	144	200	-	-	-	-	-	22	44	30	9	21	98	3	-		2,344	3,128
Complete applications	-	-	-	4	-	9	-	-	-	-	-	-	4	-	-	-	-	-	-	-		15	15
Process applications	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-		7	7
Engineer applications	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		22	22
Notice of hearing	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		22	22
Hearing	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-		22	22
Conversion orders	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		22	22
Engineer titles	-	-	-	-	-	-	-	-	-	-	50	50	-	-	-	-	-	-	-	-		2,000	4,000
Transmission	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		71	71
Total man-days	3	67	48	31	31	161	200	4	6	1	50	50	36	47	30	13	21	107	3	1			
Cost per 1,000 acres ($)	99	986	170	544	113	488	146	93	15	3	1,100		907	293	58	26	13	13	35	1	1	3,182	
Cost per 100 blocks ($)	99	2,230	399	1,037	293	902	315	289	43	3	2,200	1,814	627	131	60	23	10	107	2	1			10,532

Abbreviations:

Com.	Land Titles Commissioner
F.O.	Field Officer, Land Titles Commission
F.A.	Field Assistant, Land Titles Commission
A.O.	Agricultural Officer
A.A.O.	Assistant Agricultural Officer
A.A.	Agricultural Assistant
F.T.	Farmer Trainee
A.D.O.	Assistant District Officer
Int.	Interpreter
C.A.	Clerical Assistant
Sec.	Draftsman
Clk	Clerk
Veh.	Vehicle

Columns do not add to totals because of rounding

Cost per acre - $ 3.18

Cost per block - $10.53

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17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

Table 5

Man-days per 1,000 acres and per 1,000 blocks for officers for whom housing is provided

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	Man-days per 1,000 acres	Man-days per 1,000 blocks
Overseas officers		
Land Titles Commissioner	3	60
Field Officer - L.T.C.	67	1,340
Agricultural Officer	31	620
Asst District Officer	4	80
Draftsman	50	1,000
Clerk	50	1,000
Total	205	4,100
Assistant Agricultural Officers	31	620
Other local officers		
Field Assistant - L.T.C.	68	1,360
Agricultural Assistant	181	3,620
Clerical Assistant	1	20
Total	250	5,000

Overseas officers would require 4,100 man-days on a year's programme of converting 1,000 blocks, and thus need housing for nineteen overseas officers (four married and fifteen single). Housing has also to be provided for three Assistant Agricultural Officers (one married, two single) who spend 620 man-days on converting 1,000 blocks and for twenty-one other local officers (four married, seventeen single) who spend 5,000 man-days.[1] The cost of providing housing for these officers is set out in Table 6. The annual cost of providing staff housing for a programme to convert 1,000 blocks averaging twenty acres in area is $9,030 which represents $0.45 per acre or $9 per block.

(ii) Office facilities. Proportionate costs of office space have been estimated at $0.05 per acre or $1.00 per block.

(iii) Stationery and materials. Each individual title document will require materials which are estimated by persons concerned with them to be worth $0.60.

[1] Using days of work as set out in footnote 1, p.40.

Table 6

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Cost of providing staff housing for a one year programme to convert 1,000 blocks

	No. of officers required	Total cost* ($)	Cost of housing per year (1/15th capital cost)
Overseas officers			
single	15	75,000	5,000
married	4	40,000	2,666
Assistant Agricultural Officers			
single	2	4,000	266
married	1	4,000	266
Other local officers			
single	17	8,500	566
married	4	4,000	266
Total	43	135,500	9,030

* Based on Department of Agriculture 1965:3.

The costs of field equipment (e.g. compasses, cement pegs, etc.), agricultural extension work, the provision of planting materials,[1] transport and marketing facilities have not been included in this cost estimate as they are not part of the immediate process of tenure conversion. They are, however, essential to the success of any conversion scheme and may add significantly to the overall costs of the conversion programme.

Total costs

Insufficient data were collected to enable an accurate estimate of the total costs of tenure conversion. The available information is summarised in Table 7.

[1] D.A.S.F. estimates that the cost of planting materials over five years for 2,500 blocks on which rubber or coconuts are grown would be $233,200 or $93.28 per block. Farmers on the other 2,500 blocks could obtain cocoa and coffee planting materials locally at little or no cost.

17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara

Table 7

657
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The costs of tenure conversion per acre and per block

Item	Cost per acre $	Cost per block $
Salaries	5.10	105.50
Staff housing	0.45	9.00
Office facilities	0.05	1.00
Stationery and materials	0.03	0.60
Total	5.63	116.10

Note. Field equipment, extension services and planting materials have not been included.

It may be useful to spell out some of the implications of these estimates. In the twelve months to October 1965 work was commenced in the Northern District on converting 2,000 blocks (covering about 40,000 acres). The cost to the Administration when conversion of these blocks is complete (excluding the provision of planting materials, field equipment and extension services) will be about $232,200.

If the Administration were to extend tenure conversion to 5 per cent of indigenous heads of households in Papua-New Guinea each year (that is, to about 20,000 people, assuming one person in five is a householder) the cost (excluding the provision of field equipment, extension services and planting materials) would be about $2,322,000 per annum. There may be ways in which these costs could be reduced, but these fall outside the scope of the present paper.[1]

[1] Discussion of such topics as degree of accuracy of survey, maximum use of indigenous staff, costs of registration procedure, and the possible delegation of certain functions to local officers and/or local governments, merit discussion. It may be that costs of future conversion could be significantly reduced. On the other hand, the changes in procedure introduced by Circular 31.1.9 from the Administrator, which had not been put into effect at the time of this study, appear likely to increase costs and slow down the conversion process. In particular, the reports from both the District Development Committee and the Department of Agriculture are to be sent to the Administrator's Headquarters Advisory Committee on Land Tenure Conversion.

241 242 311 year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

241 433 177 [437] The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A]

'communal ownership', which is sometimes applied to indigenous land tenure, is misleading and must be qualified. New Guinea land tenure may best be understood as a pattern of rights of usage. For example, a man who is the first to venture into a patch of rain forest and mark distinctive trees thereby acquires the right to hunt in that forest area; if he clears the forest he acquires the right to cultivate that land. These rights are inherited by his descendents. Thus individual adults control the rights to hunt, forage or cultivate on all land, and, incidentally, to fish in the streams which traverse their land. But each individual is also a member of a closely cohesive parish[1] group, to which he owes absolute loyalty. The parish group, through its sub-groups, clans, lineages, and individuals, controls a certain area of land. It was inconceivable in the traditional days of inter-parish warfare, that any land should be given or sold to the neighbouring enemies. Under traditional custom, no individual could sell freehold title to land; at most he could permit the temporary use of land by a stranger on the full understanding that he as a lender retained the permanent rights.

New Guineans are just as conscious of their individual rights to the use of land as we are, and many disputes occur because of real or imagined infringements of a person's rights. Land boundaries in New Guinea are rarely marked by fences. More commonly they are indicated by distinctive trees, rocks, or very often by bright-leaved shrubs such as croton or cordyline. Land holders have what is, to us, an almost uncanny knowledge of the location of their boundaries. A villager can lead you unerringly through thick secondary growth to his boundary mark and can point out, for instance, the almost imperceptible rise in the level of the land marking the line of a pig-fence, now completely rotted away, which bounded his swidden several years earlier.

[1] The term 'parish' may appear unusual in this context. It is used in the sense in which it has been adopted by Dr. H. I. Hogbin (1953) that is, the largest group of people forming a political unit. Hogbin denies the existence of tribes in New Guinea (with the possible exception of some of the large highland groups). He applies the term parish to numerically-small political groups.

[P 2-B]

602 Kinship groups are of major importance in the functioning of village society in New Guinea. Every individual is a member not only of a parish but also of groups of closer kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his relatives for heavy work such as the felling of big trees to make a swidden, dragging a canoe log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides social stability and in practice the pattern of land use is frequently decided by the senior members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of cash crops by indigenes, the Administration has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown before the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

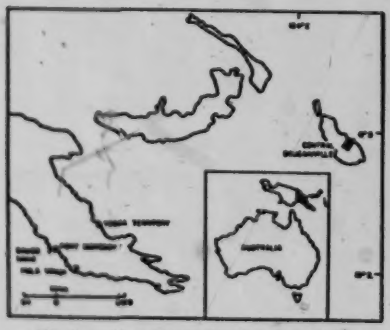

Fig. 1. Location of the three case studies

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5+B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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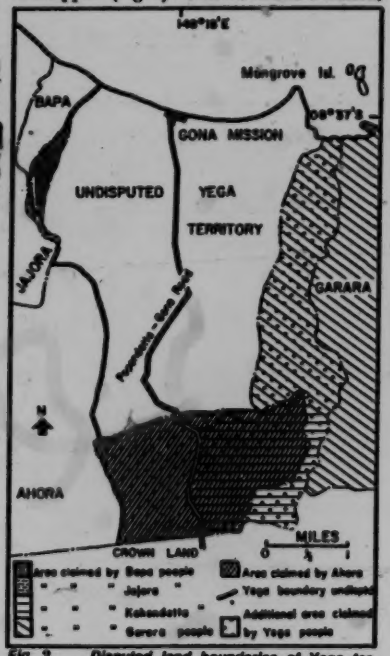

Fig. 2. *Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)*

(P.6-A)

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423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
651 forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
[619] divided into sub-clans and lineages; descent is
59 patrilineal. On marriage, a girl leaves her
178 father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

614 An abbreviated table illustrating the Yega
613 social structure is given in Table 1.
[P.6-B)

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with [428] them. These affinal kinsmen thus acquired cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.11-A]

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

[P 7-B)

[TEXT CONTINUED ON PAGE 8-B]

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

224 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 224 the Yega to exist off their strip of coast; rights 423 to fish over these reefs are held by the clans 614 whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowa- [177] days is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

245 By a fortuitous circumstance, the land selec-
● 423 ted was regarded by all Yega as communal
[614] hunting land. It had belonged in the past to
[726] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P 15-B]

361 He has now cleared bush and planted gardens
423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a
458 source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was
[439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two
245 cents per pound. The discouraging effect of
433 such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined
178 above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

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178 a) The use of communal labour to clear the rain forest and the subdivision of the area
423 among those who helped.

461 b) The absence of any documentary record
[426] of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in tradi-
177 tional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

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179 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of supervision and advice from European and
[657] indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
066 of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accom-
592 panied in almost every instance by their wives
166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega

[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with

[197] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on

[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

621 main road, or even facing each other on opposite sides of it. Although this is clearly
361 the wish of the majority of the people, it does not suit all of them. There is some
731 talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

● 423 The inheritance of land is mainly patrilineal; but a man may work his wife's
613 land, and even, with the assent of her relatives, inherit a share in his mother's land. This means that individual members of a clan, instead of inheriting land jointly
[428] from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of
[554] the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
361 once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Hoockton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this [illegible]ing later.

872 The accessibility of facilities has also improved since
799 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

368 The eruption changes the centre of gravity of the district.
731 The pre-eruption settlements of Higaturu and Sangara contained all governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

311 products, such as slow-growing trees, which are used for house
posts, drums, and other artifacts. A great deal of Sivepa land
●423 is in young bush but this is fallowed garden land. After eight
years or so, it grows sizeable trees, and sometimes it is fallowed
for much longer. In this bush, many trees may be found that have
actually been planted by man and are owned by individuals.
Prominent among these are breadfruit, various nut trees, fruit
trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
these, to forage and to hunt. Although hunting expeditions do
[222] occur periodically, and cause much excitement, they yield very
little meat. Not only is the area too small to contain much game,
[136] but also it appears that very few birds and no game apart from
small marsupials are actually still left. The same is true for
[411] the rivers which contain very little fish. I could not help
wondering, in fact, whether the meat collected was an adequate
return for the number of cartridges used to kill it. Hunting
[262] expeditions occurred only when there was a feast, and when the
offering of fresh meat to guests was especially desirable.
(Tinned meat might be cheaper than the cartridges but much less
esteemed.)

In this respect, the situation was very different in Inonda
311 where only a fraction of the land was used for gardening so that
almost all of it was hunting land. Most of this was in kunai
grass, which was very often burnt over. The effect of these burnings
was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
in meat was much higher, however, so that in Inonda, meat actually
223 became an economic resource: it was sold on the market and used
as gifts in return for feathers and other valuables. There are
more birds at Inonda than at Sivepa, more marsupials and also a
good chance of an occasional wild pig. Neither at Sivepa nor at
Inonda is there evidence today of the use of traditional hunting
techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[213] duction of guns and snorkels which greatly increased yields for
some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after
the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly
in both villages. It was impossible to know how many pigs were
owned by Sivepa people in 1966-67, because they disappeared as the
old village became deserted and were never seen at all in the new
village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepa
people alone which suggests that even in 1963, when he stayed
there, the whole village must have owned at least 60. During my
period of study, only a few of them were killed, and only when

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will
be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[799] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasumbata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[2] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepa and Isoga, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepa and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepa and closely allied
423 villages arising out of the eruption and relocation. Here inter-
576 village cooperation was a far less significant factor than inter-
village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
[621] villages and settled down together in a village named Sambogo.
Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepa. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepa and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepa villagers of the Soho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepa people in Awala. It seems that the Sivepa people did stay in Awala for three months, after which the Jegase and Timunu clan groups received permission to return to their land in Sivepa. The third Sivepa clan group, Soho, stayed on in Awala, but planted gardens in the Sivepa area.

At this point, the Soho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepa. When I asked Soho informants why they had returned they told me it was because of fear of losing their land. How this danger did not come from the other Sivepa clans, who were mostly affines of the Soho people and whose return to their home village evidently caused no great concern to the Soho people in 1951. The danger came from Kongohambo which adjoined the Soho lands. Some Kongohambo people had residual rights over some of this land; if the Soho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepa people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Belshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala)
would share their land without reservations with the Jegase of
Sivepe, that the Seho of Awala would share their land with the Seho
of Sivepe, and so on. The Orokaiva, however, knew that their
position in the resettlement villages would be weak indeed unless
they retained their own village holdings. This weakness will
become more apparent from my discussion of the resettlement village
of Hununi in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no
trouble reasserting their rights; they accepted with good grace
that their neighbors had built their village partly on Seho land
and that the mission station had partly been built on it, but they
jealously guarded the rest of their holdings. Let us now consider
the specific variables listed in the previous section.

628 Transactions between members of closely allied villages
occur in kinship and friendship roles; decisions affecting the
villages as corporate groups are taken at a meeting where all adult
men of the affected villages are present, and have a right to
speak. Visits between the villages by individuals occurred almost
every day; formal meetings involving Sivepe and one of the closely
allied villages occurred, for one reason or another, about once a
month. The occasion might be a death, a bride price, a minor
dispute, some government or council or church project. Contacts
were equally close between young and old, males and females.
Meetings occurred in the villages, or, more casually, outside
[578] them. There is much affection between people of closely allied
villages and one finds that disputes between them, though giving
rise to a great deal of heated oratory, are not rashly allowed to
get out of hand. The disputes I witnessed were all resolved amicably
and serious breaches carefully avoided. On the other hand, neighboring
[579] villages were always treated with much reserve. Before the eruption,
they never ate together except under the formal conditions of a
feast; even today, when a feast is held at the mission station for
all the villages in the parish, each village sits apart in a separate
group. When people from different villages eat together in a formal
feast, each village house has its own little group of guests, who
are either kinsmen or in a partnership relation. Transactions between
such persons nonetheless have a greater fiduciary element than
[754] transactions with other outsiders. Sorcery between closely allied
villages occurs, but only, so I was told, by the employment of a
professional sorcerer from a more distant village. No Garoubi man
would act as sorcerer, so I understand, to kill a Sivepe man, but
men from Isoge or Kendata could be found for such a service.

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are [631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land boundaries with Soroputa and Agenahambo; these boundaries lay 423 North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo [659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, Gaoubo, Binduta and Isoge, the delegation that went to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

[177] Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

[179] [659] There were altogether some 14 Europeans attached to Ilimo--two medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

[829] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically. [1731] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus, having accepted Australian gifts, the Orokaiva were naturally anxious to [1423] find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
that these reasons lie principally in Western notions of government
423 responsibility for victims of disasters and other values of Western
Civilisation, restraining cupidity, and held more strongly that the
Orokaiva, on the basis of their information, could have taken for
granted. I myself found, and Mr. Sobira confirmed, that the Orokaiva
even today are extremely familiar with the provisions of this old
ordinance, and that they still fear it, even though it has been repealed
some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
657 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new
skills and a new way of life. Under camp conditions, there was a good
opportunity to teach these new skills and put forward new ideas, but
the real opportunity, he said, came later in the resettlement villages.
The people at Ilimo had their world shattered and were still recovering
from the shock. For that reason they could not absorb as much of what
they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
657 new hospital was then being built and where an administrative centre
was also established. (Only the Agriculture Department still operates
from there today.) He attempted to develop further the new ideology he
had been putting forward by contacts with the resettlement villages of
Agenahambo, Koipa, Awala, Wasata, Kongohambo and Mumuni. He continued
his educational, agricultural and medical programmes for some months
in these villages, but he was not able to stay long. From the viewpoint
of today, these programmes cannot be seen as marking a permanent change
in the pattern of Orokaiva-European contacts. It would be more correct
to say that the European soon became as remote as before but that the
ideas promoted at Ilimo and by Mr. Kaad were later taken up by the
people in the framework of organisations where direct contact with
Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have
seen, they do not classify them according to the organisatfonal role
they fulfill. I also found that ethnic origin of white people is
usually not a basis upon which Orokaiva will classify them. There is,
however, a more esoteric basis of classification which I encountered on
a number of occasbns.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring
wealth and a happier dispensation to their Melanesian descendants. The
Orokaiva do not appear to look upon every white man they see as a

657 In March, 1953, he was able to reduce the restricted area still further,
751 to a circle of two miles' radius around the crater. Thus, all areas that had ever been used for the growing of taro and for village sites, became available to the Orokaiva once more. In these circumstances, it was inevitable that the fertile slopes of Mount Lamington were again occupied in much the same way as before the eruption.

As the first chapter of this report deals adequately with the planning and establishment of the evacuation camps themselves, I shall confine myself in this section to resettlement after the period in the camps. The number of places in which groups were settled between the day of the eruption and the present varies somewhat. The Sivepa people all went to Wairopi for a few weeks, then to Ilimo until end May, 1951, then to Awala, where some stayed briefly, others for a year. Since then the present families all stayed at Sivepa. On the other hand, the present population of Hohorita went to Cape Killerton (one week), Oro Bay (about ten weeks), Popondetta (a short period), Irihambo (almost five years), until they were able to reach their present site. The resettlement history of other villages close to the mountain, such as Kiorota and Bagevaturu was about equally long.

We may generally distinguish two phases of resettlement, following the evacuation camp period. The first phase, occurring around May, 1951, was the transfer of groups from the camps to a number of chosen "resettlement" villages, mostly along the main road from Waseta to Popondetta, but also on sideroads, e.g., Sairope and Kongohambo. This is the phase when an attempt was made to set up model villages of largish size under close government supervision, following discussions at Ilimo when the people concerned had agreed to live together, and to make the innovations. It was no doubt the intention of Mr. Kaad to continue in these villages the educational effort started at Ilimo camp; and this will be discussed in subsequent sections.

The basic problem, however, was to ensure satisfactory garden lands for the resettled groups. The weakness of the locations chosen by the government was that they were mostly placed along one main road and thus within walking distance of only part of the available garden land. As Plant and Keesing foresaw, it was inevitable that the settlements would split up so as to bring people closer to their garden land. It is mainly for this reason that the Sivepa people did not stay at Awala. Furthermore, the resettlement was based on an analysis by Plant according to which a local clan group could be resettled in any village where there was a group with the same clan name. I shall give only one example of this sort of analysis, to show its effect. There are Jegase clan groups in Sivepa, Binduta, Sui (near Awala) and Isivita. Plant therefore suggested that in the resettlement of Isivita, the Jegase clan group could be shifted to Kongohambo and be given the use of land at Sivepa, Binduta or Sui. Some Isivita evacuees therefore
[473] went to Kongohambo while others went to Knipa. The Jegase of Isivita were thus made to join groups which were themselves already fairly short of land and, in the case of the Jegase of Sivepa, dependent on

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
423 each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Numumi, situated between Sasembata and Waseta, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Numumi, which was intended [425] as one of the new style resettlement villages. They were given some land to cultivate and stayed for several years. When the government [245] began to encourage the planting of coffee trees, the Dapari immigrants planted coffee gardens at Numumi. Under Orokaiva law, it is permissible [426] to plant trees on borrowed land provided the owner consents and the produce from that tree will then always belong to the planter, even [422] when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

657 It is a ticklish question whether this rule similarly applies
731 to coffee trees which differ from the traditional kind of trees in
423 two ways: first, in that they occupy the whole of a piece of land and
245 not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 After planting their coffee at Mumuni, the Dapari people began
731 to depend for their subsistence gardens on land they owned in their
423 own natal district, which was an hour or so from Mumuni. All the
578 Dapari people, except for the Jegase clan group of Dapari, went back
629 to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepa to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.

The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
[578 group has solid land rights close to the village. Thus, the resettle-
628 ment of a group of Garoubi people in Sivepa in 1966 may well be stable
because these people own land within a one-mile radius from Sivepa.
But the resettlement of Dapari people in Mumuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Mumuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepa people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Mumuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to
agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
657 of their own. This process started almost at once and continued for
more than five years. I have already stated that in Sivepa this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagavaturu, Kiorota, Sava, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepa, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagavaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,859, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepa could give only limited
help in the way of lending gardening lands and marauding pigs were

621 another source of annoyance. Some village groups requested permission
657 to move from Koipa and this was granted. A report on the file refers
731 to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bagovaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict than it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

This second phase of resettlement became possible because the
657 first phase was not accompanied by any renunciation of land rights,
731 or foreclosure of the possibility of return. At no time did the
423 resettled groups give to anyone else a permission to occupy vacated
245 lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of D'pari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dapari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise
[423] be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepa, most men have some land of which they are indisputably the owners, but at the same time most of them also have usefolds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepa showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Soho clan chief who had

657 731 planted coffee on his mother's brother's land. He explained to me that this mother's brother was dead and nobody except himself had any claims on the land. The second man, who had planted on his wife's 423 land, was not so fortunate. His wife's relatives live in Sivepa and 245 lost no time asking for the return of "their" land as soon as the coffee was harvestable. He settled for a compromise: he planted coffee on some of his other land and promised his affines they could have their land back as soon as his new trees began to bear. As far as I could discover, this was agreed to.

423 It has been argued by several students, especially Crocombe and Hogbin, that title improvement is a necessary requirement for the success of cash cropping in the Northern District. My own findings suggest that the importance of title improvement varies a good deal between villages. Where, as in Sivepa, a fair amount of land is held under an undisputed title, no great gain in productivity can be expected from the formal registration of these good titles. In other places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Numuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Numuni is stealing their coffee, could any judicial officer convict any person from Numuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

657 423 The government made a fresh approach to the problems of indigenous land tenure with the passing of the Land Titles Commission Ordinance 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments. Under these provisions a Land Titles Commissioner has been appointed at Popondetta whose task it is to determine the land titles in specifically designated "adjudication areas." The Commission prepares an adjudication record showing what land in the adjudication area is native land and the ownership of each piece of that land. A native may then apply for registration in his name of any native land included in the record by agreement, but no titles can be registered in a piece of land which is less in either area of frontage than the standard prescribed for the purpose for which the land is likely to be used. In practice, this has meant that every individual holding registered by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hoborita in 1966. Hoborita is a resettlement village harbouring some 12 clans;

it has a substantial area of land but holdings are very fragmented. As this village is very interested in growing coffee, its leader suggested in 1962 that all Hohorita land should be consolidated and partitioned among the owners and titles registered. (Crocombe and Hogbin, 1963: 93) When I visited the community in 1966, an officer of the Land Titles Commission was busy measuring the ring boundaries. He found that the Hohorita people owned a total of 2,240 acres of land, enough for 112 unit holdings. I was impressed with the ease with which the people could be induced to accept the scheme in spite of its far-reaching repercussions. If the scheme was accepted, all boundaries would be redefined by the commission; people would often need to exchange their ancestral blocks with others in accordance with the map prepared by the commission. Moreover, the usual pattern of shifting cultivation would need to be carried on within the boundaries of the single 20-acre block which, in addition, would need to accommodate cash crops. The fluidity of traditional land transactions, the opportunity to revive old claims and residual and reversionary rights would be past, as the registration abolished them all, including the rights to planted trees. All this was explained but did not deter the people.

The scheme was killed in spite of its popular support, because it was soon bruited abroad that Hohorita was to be cut up. I witnessed myself that letters were written to men who had been living away from Hohorita for years and were never likely to return. These letters, written by relatives, warned the men to come to Hohorita to assert their rights. It had initially seemed that 112 holdings was quite adequate, in fact ample, for Hohorita's population, but as all the absentees came swarming to the Commission, a total of 126 men had been able to assert their rights successfully. In none of the Ordinances was residence specified as a necessary qualification for participation in a consolidation scheme; hence the Hohorita scheme had to be dropped and hopes dimmed that major schemes could ever be completed on a significant scale.

In 1967, a remedy to this problem was devised. According to this scheme, each ward of the Higaturu Local Government Council district was formed into an "adjudication area." The people were asked to determine the boundaries of their wards; as I have already described, the lower Sasembata ward did so with alacrity. The effect of this operation was that no person resident outside the ward would henceforth have rights to land inside it. Residence could easily be determined from the village census lists. These lists did not wholly represent actual residence, but a non-resident would be obliged to be present at every village census until he transferred himself to another village list. The main point was that every person can be on only one census list and thus have land rights in only one ward. The establishment of the boundaries would probably daunt any surveyor as numerous men have rights in the land of other wards, but I found that the work was swiftly done by the Orokaiva by the expedient of effecting some exchanges along the boundary line so that, for instance, Soroputa and Kongohambo

retained as much land as they had before, after the boundary was cut. They had received some Sivepa land and they had lost an approximately equal amount of their own.

Thus, the lower Sasembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect, of being misled by its own ideological bias. The enthusiasm people felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

654 and local field trials are being carried out on the volcanic soils
242 of the Northern District.

Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve
[879] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

657 A good deal of development work has been left for the Higaturu
423 Council to deal with. I have already mentioned that government officers attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.) Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
628 abandoned now. Although these two da were less than a hundred yards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohovita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
361 further than about 1948 when the village Pamba was built, combining an older Sive and a now defunct village Pusahambo. The census list
[162] current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Garombi were considering moving in and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.
114 The question is an interesting one, but Sivepe does not
provide a clinching counter-instance. Mr. Waddell's sample was taken
entirely from the Jegase and Timunu clans, while he did not collect
[489] data on travelling time from the Seho clan. Now it is the latter clan
which owns most of the land around New Sivepe, so that their travelling
● [423] time is (at least for most families) substantially reduced by the shift.
Furthermore, five of the Jegase households (some of which were formerly
called Timunu) now have gardens very close to New Sivepe. The main
sufferers appear to be two families who migrated from Binduta recently,
whose land is mainly close to Binduta, and against whom feeling has
been building up over the last few years. Mr. Waddell is right,
however, in stressing that the major reason for the shift (as given by
informants) was the closeness of the new village to the road and the
mission station. As such the basis of the shift was practical and
ideological but I believe that overall travelling time was reduced
if both Seho and Jegase clans are taken into account. Certainly the
new village is very close to the land of most of the Sorovi people
who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time
could be reduced, and thus working efficiency increased by land tenure
conversion. He has in mind, I think, the arrangement already found
in Papuan returned servicemen's settlements established by the government
where each individual family is settled on its own 20-acre block and
grows cocoa and subsistence crops there. Conceivably, when tenure
conversion is completed, the Orokaiva might be encouraged to live on
individual farm holdings rather than in compact villages. Some planners
in the Territory are actually playing with this idea. It has many
drawbacks, however: distance from roads, from schools, collapse of
social control institutions, abandonment of useful social development
projects such as the provision of good water supplies in the resettle-
ment villages.

Comparison with Inonda suggests that as the proportion of adult
males lost through migration from Inonda is smaller, and none of these
males have left dependents in the village, and furthermore, as the
amount of cash cropping work is relatively smaller, the Inonda people
are less pressed for time than those of Sivepe. This is borne out by
the fact that they are away from the village more frequently as
Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of
time spent on productive work, but the amount of time devoted to social
activities and contacts outside the village declines even more steeply
after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[723] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

the people. When the Japanese were gone he went back to his old village; around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Hosou, Ajoro and Dobuduru. [582] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal [423] relatives if they stay in Inonda or Hohota. But gifts of land are [431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education. [777] I was not able to learn much about him except that he was most knowl- [784] edgeable about the holding of feasts and their magic and that he feared

124 really stood. In this, there may have been a certain hollowness;
197 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

Children were trained by their parents in the prevalent system
967 of custom and belief, as modified by recent changes; they maintained
869 their traditional regard for their elders, not regarding their school
197 knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly expected to help their kinsfolk, especially if their knowledge had
602 yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

The penalty threatening an absentee who neglected his kin had
[626] to be paid when that absentee returned; especially when that absentee
[423] wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

For those who remain in the village, the sanctioning mechanisms
626 are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [477] much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant [161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation [597] households were more common and bachelor's houses were not found. Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages ●[423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
Hohorita were married without one. At the present time, bridewealth
[464] is reinstated, and young men go to neighbouring plantations, which are
plentiful--or else further abroad--to earn them. While many husbands
[595] worked outside Hohorita, most of them were able to return home at
weekends. Polygamy was pronounced before the eruption, but it seems
that the polygamists became victims of the eruption and polygamy no
longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
above that of Sivepe, the reasons are: better facilities during the
years 1945-1951, loss of many members of the older age groups in the
eruption, special efforts made by Bishop Hand at Irihambo to draw
Sangara into mission teaching. This higher standard is reflected in
the statistics of persons who at one time or another have been in
434 skilled occupations. (Table 21)[A] The persons who returned to Hohorita
did so with the express idea of making some money out of coffee; the
average income from coffee in Hohorita is certainly far in excess of
that in Sivepe (about $100 per annum).

871 Hohorita does feel that it is held back by the present educational
provisions which are little better than those in Inonda and much
inferior to those at Sasembata. (At Hohorita, there is no schooling
beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
people compare the school unfavourably with the government school at
the Sangara resettlement block which offers Standard 6, and which,
furthermore, has more highly qualified teachers on the staff. My
own impression was that the head teacher at Hohorita is a very good
man; some of the criticism of him is no doubt due to spite, for he is
of local origin. Still, the general criticism of facilities at
Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been
frequent. The explanation may be found in the pressure, after the
disaster, to find mates when most preferred potential marriage partners
had died in the eruption. This breaking down of the endogamous emphasis
after wars and disasters is, as I pointed out earlier, traditional
among the Orokaiva.

●423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly
582 after the eruption. According to this arrangement women who married
outside Sangara, would be allowed the same land rights as though
they had been sons. This was done in an effort, so I was told, to add men
to the depleted Sangara population. Men would thus be encouraged to
settle on Sangara land rather than take their Sangara wives home with
them. Two men from the Sasembata district are now living in Hohorita
under this arrangement. They keep up normal exchange relations with
their home district, e.g., I know one of them lent hambo for the kere

A (See Cat. 116, p. 228--Analyst)

dance in Saesebata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepa are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepa were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepa. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepa has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepa.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepa, the fusion of Jegase and Timunu had established a fairly equal balance with Seho; as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horsopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

Map III

(End Map 3)

Source: Rinaldi 1966: 82

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

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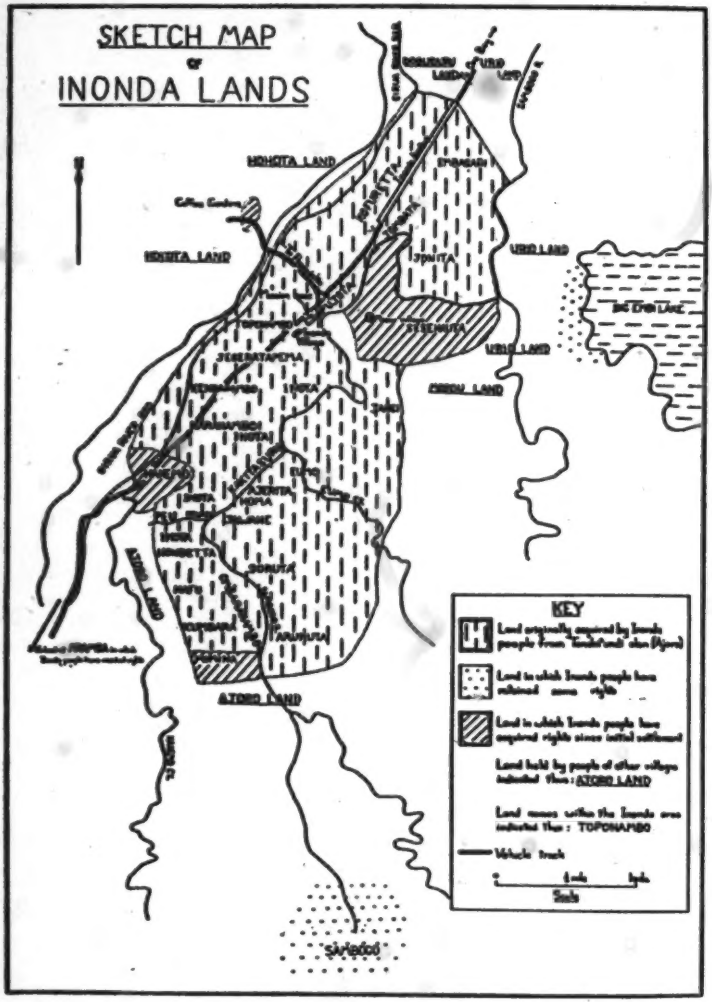
MAP IV



102
423
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Source: Crocombe & Hogbin 1963 : 105

[End Map 4]

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been associated with their land.[11] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

The fears about losing the land which explain much of the tension at Ilimo Camp are a direct consequence of conflicts implicit in Orokaiva social structure. The institution of land borrowing, the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[11]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

administrators, accustomed to secure forms of land tenure in their own culture, could not fully share the Orokaiva anxiety about losing their land.

This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

This analysis of the 'new age' ideology indicates that it is related only loosely to social and economic development. It arises directly out of political competition between the Orokaiva, the mission, and the government. Whenever new techniques appear to the Orokaiva to serve this power struggle, their adoption is advocated. We have seen that a traumatic event such as the eruption of Mount Lamington, when it became the subject of Orokaiva philosophizing, was at once put at the service of this competitive struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and micro-processes. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

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1966–1967, however, this fear was not mentioned to me by informants, whereas I often heard of their worries about the danger that relatives from other villages might take their land, goods, and chattels.

18. On the average, an Orokaiva derives approximately half his land from patrilineal inheritance. In accordance with British terminology, I have called this "patrimony land." The other half comes from a variety of sources, mostly from uterine kin.

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657 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Ilgaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sausha; Crocombe and Hogbin describe Sausha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship
[574] context, by persons from another district. This was a group from Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Carombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting
[572] rights at Ajoro. I could not find other references to ancestors beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

When the members of the "Waseta tribe" were accommodated at
[657] Ilimo, they were not only the guests of the government which
731 supplied food and other comforts, but also of the people of Ilimo
[574] village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generation, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 from a patrilineal norm are so frequent that it is unusual for any man to hold
425 precisely the same blocks as his father who was *enda mama* before him. Nor do
611 clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 The first question that needs to be resolved, in the case of the Orokaiva, is
423 whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is
425 expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 We have seen earlier in this discussion that the obligation to 'look after' a plot
423 of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility
[554] falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all
[768] these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His
[627] father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will not accept the decision of the *enda mama* has no option but to leave the village and forfeit his patrimony. 596

Economically, the *enda mama* is theoretically in full control of all products of the soil and of all resources owned by his family. He also has full control over the allocation of land to family members and others, with the proviso that his sons, if any, should get at least 'half' of the land when he dies. [423] [428]

In summary, the religious, political and economic attributes of the extended family enable us to describe it undoubtedly as a corporate group. It has to be recognised, however, that the parcels of land controlled by this corporation vary considerably from generation to generation. A corporation will shed parcels which are permanently vested in other lineages, and will obtain new parcels from uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin (1963) have all treated this land corporation as comprising a 'lineage', so that it may seem idiosyncratic that I am calling it an 'extended family'. My reason for changing the description is that I was unable to find any case of an extended family lacking an *enda mama*. There are, of course, lineages comprising more than one extended family, but in such cases one finds more than one *enda mama*. Crocombe and Hogbin, faced with this phenomenon, added the term 'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small sample contains no case of a 'sub-lineage' comprising more than one extended family. In these circumstances we may well delay discussion of the range of control of the *enda mama* until we examine patrilineal ideology in Chapter X. 596 613 [423] [425]

We notice, however, an apparent conflict between patrilineal ideology and practice. According to the ideology, an Orokaiva patrimony is passed on from an *enda mama* to his successor; there is no rule for splitting up the patrimony between the sons of a deceased *enda mama*. How does it come about, then, that every extended family has its own *enda mama*? The process is easy to describe. It is customary for an *enda mama* to allocate land to all married men of his extended family on a more or less permanent basis. He has the right to change these allocations when special circumstances arise but changes do not occur often. As the *enda mama* becomes older, and less able to make his own gardens, he tends to distribute more and more plots, either to his sons or to other persons of his choice. Though the patrimony remains undivided in theory, in practice it is being divided. In this subdivision, the rights of brothers are supposed to be equal regardless of seniority. 596 423 425 [428]

When the older brother dies, the position of *enda mama* passes to the younger brother. The sons of the elder brother then retain no rights of succession and will depend for their well-being on the new *enda mama*, their uncle, who often adopts them if they are young. If the younger brother dies, and there are no other brothers left, the younger brother's eldest son becomes *enda mama*. The custom in such cases seems to be that the portion of the original patrimony set aside for the elder brother should go to the sons of the elder brother; the portion set aside for the younger brother should go to the sons of the latter. Theoretically the eldest son of the younger brother would be *enda mama* over the entire original patrimony but in practice a gradual splitting up would be inevitable. Orokaiva do not easily accept the authority of their cousins or adoptive brothers. 596 428

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

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OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same
583 applies to most instances I know of uxorilocal marriage. Here it was usually the wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi.
166 Seeking an increase in population, Sivepe leaders frequently encouraged dissident minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
Such gifts, apart from their economic significance, buttress social relationships
[169] both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
593 made to a sister or daughter, the husband or son or the recipient must subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

5: Schwimmer E-4,5 (1966-1967) 1973
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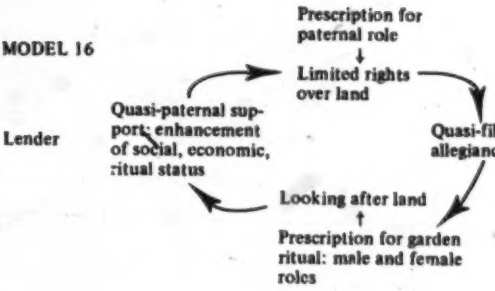
MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

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The data I shall discuss here were reported in Crocombe's and Hogbin's study of Inonda (1963) and supplemented in a brief study by myself. A leading man from Tandai'undi clan (Seva village) gave most of the present Inonda domain to a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following generation Tandai'undi, according to the custom (of patrilateral cross-cousin marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

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In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 protection was now demanded on pain of eviction. Around the same time, coffee
423 was being introduced in Inonda as a cash crop, but none of this was planted on
Tandai'undi land. Three men who had land derived from a different source
425 planted coffee there in 1955 but the other families who had only Tandai'undi
[422 land had planted none as late as 1967. They feared that if they did, there would
[245 be trouble with the Tandai'undi.

There are many examples in other parts of Orokaiva territory to show that these fears were fully justified. To confine myself to Sivepe, where my data are most detailed, I found that although more than half the land was occupied by
423 rights other than patrimony only two out of fourteen coffee gardens were
422 established on such land. When I inquired into these two cases one grower
425 explained to me in careful detail that he had nothing to fear because the mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

5: Schwimmer E-4,5 (1966-1967) 1973
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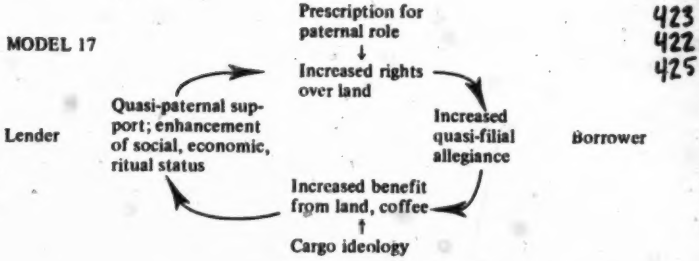
Mountain Orokaiva

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

best definition of 'residual rights' would be 'benefits that are claimed when the social exchange relationship has broken down'. They are a sanction applied to punish the loosening of quasi-filial allegiance. 423 425 571

The case of Inonda is atypical as the entire village domain is held under an arrangement derived from the ideology of exchange. A more frequent pattern is for an individual to own some blocks of land in virtue of more or less permanent gifts. In neither case does this land mediate sacred and indissoluble bonds. In the case of patrilineal inheritance, the individual violates no supernaturally sanctioned rule if he cuts himself loose from his *enda mama* (and often keeps his land). In the case of land gifts, he may also cut himself loose if bonds of affection and expediency weigh less with him than the cost of satisfying his donor. If he should break with his donor, there is likely to be theft, intrigue, sorcery and perhaps violence and it is quite unpredictable who will eventually occupy the land.

If a man has only gift land at his disposal, he is in an insecure position in his relations with his exchange partners. This seems to be the case in Inonda. If a man has only patrimony land, we may assume that he has no close bonds outside his extended family and lineage, as such close bonds would probably have led to offers of land. Such a person has too narrow a base of social support in the community to count for much, and to counter effectively challenges to his position and property that will be made from time to time.

7. *Conclusion*

It remains to be shown that the facts and analysis of land transactions illustrate the general principles set out at the beginning of this chapter. I have dealt with a series of social relationships in which one partner has a strong need to identify with the other, to maintain a stable and permanent bond and to obtain what the other has to give. This need was sometimes social, sometimes economic, sometimes emotional, sometimes religious. All these bonds depended heavily on land for their efficacy. 423 571

I have shown that a donor of land does not necessarily separate himself irrevocably from the land as such, but from the usehold of it and thus from the productivity of the land for a certain period. There are no return payments which can ordinarily compensate for the gift, the main purpose of which is to mediate a certain social relationship. The donor can never quite know in advance whether the gift will be efficacious, as the receiver of the land may not, in the end, make the social prestations for which the donor hopes. The receiver is usually someone from whom substantial social support, in one form or another, can be expected. The relationships arising in land transactions are therefore precisely those which my model was designed to interpret. 423 425 571

In the introduction to this chapter, I argued that a gift could be regarded as a 'mediating element', for the purpose of my analysis, only if there is identification between the donor and the mediating element. In the case of land, we have seen that the owner strongly identifies himself with the lineage spirits believed to be resident on the land. The land is a part of him, just as his ancestors are a part of him. By transferring the land to another person he causes that other person in turn to identify himself with the land. He is thus magically 423 425 775

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 imbued with the spirit of the donor and (ideally) compelled to behave as though
425 he owed the owner quasi-filial allegiance. This is a magical action of precisely the
775 kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another,
423 the owner desires to have his land returned to him. This is why 'residual rights'
425 on cash cropping land are so awkward. The modern age, the desire for money,
571 the commitment of productive effort outside the range of the security circle all
[178] tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

791 Land may also act as a mediating element in a negative exchange between a
789 sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In
423 many situations of this sort, events which we would class as metaphysical,
425 physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

577 The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

000 1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.

2. For the location of Garombi, see Fig. 10.

3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.

4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly
[554] towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be
276 shared, after the meeting, between the men and their wives. The men are to ask
562 their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 242 716 825 824

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

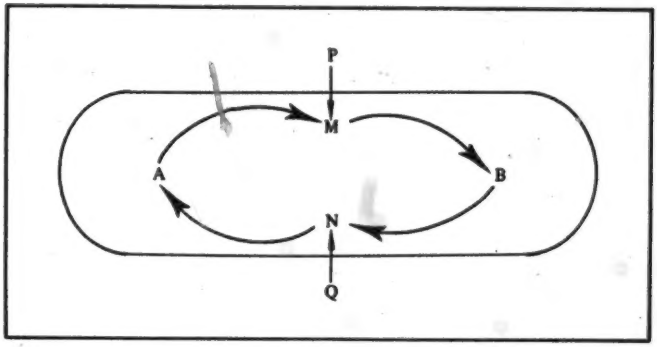
an economic standpoint, it is important that they represent storable wealth – the only storable wealth of the Orokaiva. Nearly every family today keeps *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

In the last five chapters exchange has been discussed largely on the assumption that it occurs on two levels. First, it occurs on the mythico-religious level where exchange relations are stated in the form of binary oppositions or possibly also some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



435 245 At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) [258] [249] No copra was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. 245 After the war the Akute'undi, as landowners, claimed the trees as their own on the ground that the community project 425 had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the right of the Akute'undi to the exclusive use of the coconuts as [578] all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

245 Enquiries in fifteen other Orokaiva areas where coco- 258 nuts were planted under the regulations show that most were 249 never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 average f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

000 Appendix B. No further communal plantations were ever established.

425 435 Payment for the land purchased by the Crown was made in tobacco, mirrors, belts, knives and axes. The precise cash value of these goods is not known, but the value of twist tobacco at that time was about 3/- per pound, (or 1¼ pence per stick) and the various goods chosen as payment by different individuals indicate the following values:

1 mirror	=	3 sticks tobacco	=	4½ pence
1 belt	=	3 sticks tobacco	=	4½ pence
1 small knife	=	4 sticks tobacco	=	6 pence
1 large knife	=	16 sticks tobacco	=	24 pence
1 axe	=	29 sticks tobacco	=	43½ pence

The 16 blocks listed in Appendix A[1] contained 266 acres of land (with blocks ranging from 10 to 30 acres) and were bought for 23½ pounds of tobacco, 21 mirrors, 21 belts, 14 small knives, 6 large knives and 1 axe, or an approximate cash value of £5. 8.11 or just under 5 pence per acre of land.(1) The payment was divided equally between those persons listed on the purchase documents as the owners.

425 The officers who negotiated the purchase signed a declaration in each case to the effect that the land purchased was "unoccupied at the time of sale", though in several instances present-day informants have named the families or lineages which were gardening there at the time the plantations project began. As the land was to be set aside for the use of the local people the officers were perhaps less meticulous in this regard than they would otherwise have been, and in one instance signed a declaration to the effect that the land was unoccupied even though it was stated elsewhere on the document that the land had been under crop for some years and remained so.(2)

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(1) The first five blocks were purchased by an officer who paid one pound of tobacco per five acres (equivalent to 7d per acre) and the rest within a matter of weeks by another officer who paid in a wider range of goods worth the equivalent of just over 4d per acre There is no noticeable difference between the lands concerned. These prices are much the same as the Crown was paying for land elsewhere in the Territory at that time.

(2) Amboga plantation No. 26 (extension).

A. [See Category 423, pp. 37-40--Analyst]

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

[212]

(1) The vendors were illiterate and signed the documents by the putting of marks.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952. 241 [731]

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account. [578] [258]

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the 654 245 245 578 [654]

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage. [425]

423 [245] [428] It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes acquire trees of their own in this way but unless a woman is the sole surviving member of the agnatic group in which are vested the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated that he would not expect his sister to ask for produce from his [685] trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38).[A] Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed [423] to retain by the deceased's co-resident kin who inherited the land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 614 On special festive occasions a localized patrilineal group has some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

A,[See Category 428, p. 38--Analyst]

166 361 613 [425] [731] the Jegase people had no land on the Awala-Kendata road nearby, where they decided to build, they acquired rights to house-sites on the road on the land of the Be'ohushije[1] in return for rights granted to some members of that clan to build on Jegase land 3 miles away at Awala No.1. The Jegase people had begun to move to the new village, now Binduta, when Mt Lamington erupted. Although they were outside the limits of the area of destruction the people were evacuated for safety.

The Sesevopa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepe had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sohu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

[682] The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timunu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohushije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepe (d3J). This man's son is the third Berekipa household head (e2J).

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[1] The Be'ohushije formerly lived in the nearby villages of Saunhambo and Hehereta and their land adjoins Sivepe village.

[2] See Genealogy, p.52. A

[3] For relationship between namesakes (tato) see Williams 1930:96.

[4] See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A, [See Category 601, p. 52--Analyst]

villages and individual members of these groups have come to regard as their own, since 'usage tacitly becomes ownership'.[1]

Norton's use of enda mamo seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepe exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mamo or Norton attributes to the embo dombo.

Among our recorded cases of land falling without direct lineal heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organization is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebehupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 50 years.

He retains prestige and influence in many matters of concern to his own lineage. He can claim prominence among more close agnates than a leading man of any other lineage in our sample, even though the Bebehupa have now dispersed from Binduta to Garombi, Nahihita, Kakita, Awala and Sivepe. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Norton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

614 Pekuna (9 persons), 28.2 acres, 3.1 acres per head) Timunu
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head)
(If Jegase and Timunu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timunu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 423 Three members of these clan branches stated that they intended to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).A Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).B One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).C One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).D

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 727 425 In former times it was not uncommon for a successful warrior to bring back the son of a victim he had killed during an intertribal raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepo. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A,[See Category 428, pp. 111-117--Analyst] B,[See Category 428, p. 112--Analyst]
C, [See Category 428, pp. 112-113--Analyst] D,[See Category 597, p. 60--Analyst]

597 rights he has already received from his natal group before he may acquire proprietary rights and become a permanent member of the adoptive group. He may transmit the former rights to his sons, themselves full members of the new group.

As long as he stays with this group and land is not in short supply he may inherit an equal share with his adoptive father's [425] children. All rights are relinquished if he returns permanently to his natal group. If the land held by the adoptive group is scarce and extensively used by its members, he may become a permanent member of this group without acquiring rights to its land, especially if he was not previously related to the group or if he has access to other land.

An adoptee can continue to exercise his rights to land of his father if it is nearby but it may be difficult for him to retain land which is too far away to cultivate often and, unless he has close kin there protecting his interests, his rights and group identification tend to be contested.

The way rights are established by adoption, as with rights acquired by other processes, cannot be predicted far in advance for the actual rearrangment of proprietary rights in any particular case will be determined by the current relations between the parties involved.

425 By way of example, one man born into Ato clan is living with his wife's lineage, Bebehupa (of Jegase clan). He has no other 597 close kin and Awala is the nearest place of residence of any member of his natal clan; he is widely and consistently spoken of as a Jegase man (dóJ). When his father, a member of Heherita village, was accidentally killed when trying to mediate in a violent dispute between his clansman and Jegase people, his mother married a man of Arehu lineage. He was never given rights to plant on his foster father's land because it was under heavy use but he inherited some land near the Jegase holdings from his father. His wife also inherited land from her father, a Bebehupa man, who had no sons or brothers, and he has sometimes cultivated that.

However, due to serious illness, he is not active in the social and political affairs of his foster father's and affines' local descent group. As he is in a dependent and marginal social position and can use land of his own, his intermittent efforts to cultivate the Bebehupa land are not warmly welcomed by the leader of this lineage, regardless of the stated intentions of both the adoptee and his wife, a childless couple, to pass the land which each inherited to the sons of the Bebehupa leader.

613 In practice there are no land rights and obligations which the 614 different Jegase lineages recognise toward each other as members

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 It is by virtue of such interpersonal ties, hardly less than by 602 shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, [428] by these means, claims to inherit land are established in many circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of [613] different clans and of other villages hold a contiguous section of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

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1. In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

614 For example the sons of 3 brothers, A, B and C (see d10J, and d9 and d8 on genealogy), together with another classificatory brother D (d12J) between them shared rights to at least 13 blocks of Bebehupa land. A and C held 1 block, A and B held 3, A and D held 2, A, B and C held 2, A, B and D held 2, A, C and D held 2, and A.B, C and D all held sections of 1. Data on B's and C's land were collected incidentally since they were not included in the sample and they may have other blocks which they share. D has other blocks some of which are shared with other people. The sections held by any one of these 4 men do not form significant patterns of contiguous holdings or even distinct patterns separated from the land of another of the 4. The spatial distribution of his sections reflects only the general distribution of the land of the Bebehupa in relation to land of other descent groups. Nor are the sections allocated among the 4 men according to soil types.

The arrangements for dividing the land between brothers are associated with the fragmentation of land held by individuals and groups. Informants could not account in any detail for the complex pattern of the distribution of parcels of land among different groups or even among a few householders of one lineage but would cite the practice, perhaps adopted by members of successive generations, that a man with a number of sons would divide his larger blocks of land and distribute the sections and other smaller parcels among them as convenient.[1] A sequence of transfers of even a few of these small parcels between kinsmen not of the same lineage, is a further process which, although informants did not suggest the possibility, would readily produce fragmentation of holdings of descent groups; we came across no instances where reciprocal transfers were effected in order to consolidate either areas of land held by individuals or territories of groups.[2]

● [425]

There is extensive interpenetration of the landholdings of clan branches in the neighbourhood. The largest continuous area of Jegase land is centred around the abandoned sites of previous settlement, particularly Simbehata and Pusahambo where most of their ancestors lived earlier in the century. Members of this

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1 Two brothers in our sample each claimed a particular number of the father's blocks and sections for himself whereas they held joint rights in other blocks which could be passed on to their sons. However, we could not establish the reason for this distinction.

2 We know of 1 man (d9) whose share in an inheritance of land from a distant clansman and maternal kinsman (see Appendix E, p.111) was organised so that the parcels he received were those which his clansman had held adjacent to his (the beneficiary's) own patrimonial land.

A,[See Category 601, p. 82--Analyst] B,[See Category 428, p. 111--Analyst]

614 clan branch claim that in the years before contact Jegase men extended their control over areas of land northward from this area toward the territory of the hostile Togahau and Divinikovari. They claim that this expansion was restricted by pressure from enemies but it is difficult to determine how often open conflicts preceded settlement in these outlying areas or how much it was limited rather by expansion of descent groups within the tribe or of other local groups.

The pattern of fragmented landholdings of local clan branches is said to be due to the fact that members of allied clans would move into an area of unoccupied land about the same time to clear contiguous areas. Any descent group which later found its holding no longer adequate for immediate needs and wished to open up new land would often find the surrounding land already settled and would move to the edge of the area so far appropriated as gardening land by the members of these groups. The explanation sometimes given for the existence of an enclave of one clan branch's land within another's is that a Jegase man, for instance, had lived with the Seho people holding the larger area and had cleared virgin land near them.

[476] The men exploiting new land often worked in association with some of their co-resident clansmen but the apparent lack of regular co-operation between members of patrilineal groups larger than the expanded family in opening up unoccupied land may account for some of the present scattering of clan branch land or even of the areas occupied by separate branches of 1 clan.[1]

[425] Informants stated that the initiative in establishing rights to previously unoccupied land was taken by individual cultivators and that the land which they acquired was retained by their lineal descendants.

[613] Some people suggested in answer to our questions that subdivision and further fragmentation of areas of Jegase territory, now identified with one or other of the lineages, occurred where large numbers in successive generations settled within, and made more extensive use of, one after another of the areas where an ancestor had been first to claim land or had at some stage effectively occupied it.

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[1] Norton (1962:6) gives a similar explanation of fragmentation and suggests that it occurred more often after the extension of administration control when the co-operation between members of separate clans formerly residing together for mutual protection was carried over into the activity of opening up areas further afield from their village.

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepe. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepe people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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1 For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

2 See Williams 1930:7; W.1.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepe. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
171 result in repeated changes of residence as it does among the
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[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Table 5

423 613 614 Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)
1. Planter is a member of lineage holding proprietary rights	15	9.17
2. Member of a different lineage but same clan branch	5	2.57
On land of planter or co-resident agnate		11.74
3. Member of a different clan within the same village	10	4.49
4. Member of another branch of the same clan	1	0.10
5. Member of a different clan and village	3	1.51
On land of others		6.10
	34	17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c, and Ch.5, Section b. A

166 171 425 Chimbu or to influence the choice of a garden site; a Sivepe man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with roads. The boundaries common to members of different clan branches [614] appear to be neither more nor less clear than those shared by smaller groups.

A, [See Category 245, pp. 83-86; Category 248, pp. 87-93; Category 423, pp. 96-98--Analyst]

f. Local organization and land transfers

425 (1) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1931: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

425 In such circumstances where the recipient and the original rightholder have lived in the same village or in neighbouring villages which are closely related and have worked together the land in question will be occupied by a person who has already established and maintained an accepted status in relation to the former landholder's group and who often has special relationships to particular kinsmen within it. At the time, accordingly, the transfer is to the recipient as an individual[1] and not to a patrilineal group. After the passing of a generation however it will come to be regarded as part of the heritable territory of his agnates. [428]

Moreover, there may be no immediate change in the use of the land involved and the extent of the rights being exercised may not be clarified for some time. In several cases we noted that a balance was eventually struck in dividing the land between claimants who were co-resident but distantly related patrikin of the deceased rightholder and those who were co-resident non-agnates.

Unfortunately, since our survey was short, we could gather little significant evidence of any disputes which may arise between parties with conflicting interest in such land. Our data include on the one hand instances where a transfer of rights still within memory has been confirmed over time and on the other the stated intentions of members of landholding groups as to the transmission of their rights.

Since the blocks involved are small and the fragmentation and interpenetration of the holdings of patrilineal groups is extensive, there is little concern for the maintenance of the continuity of the territory of these groups.[2]

These transfers which are prompted by individual needs and demographic changes lend flexibility over time in the distribution of land which is a comparatively scarce resource. Population pressure has not resulted in greater conformity to the ideal system of patrilineal inheritance of available land. [428]

(ii) Orokaiva and Chimbu land holding and residence compared. We maintain that our account of the mountain Orokaiva shows not only the underlying contrast, in some respects, but also the significant characteristics in common with the Chimbu so that it [171] [121]

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1 But in some cases a clear identification of the recipient may be arbitrary - e.g., to name him as either an affine or else a cognatic kinsman of the original holder is sometimes rather inaccurate, if the kin of these categories are father and son (see Appendix E, p.111).

2 See Brookfield and Brown 1963:133.

A, [See Category 428, p. 111--Analyst]

178 individual mobility among the mountain Orokaiva. We especially
361 doubt the generalization that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

654 The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Norton (1962:12) argues that new practices in the transmission
241 of land rights have emerged with the expansion of coffee growing
178 since 1956. Our evidence, however, shows that the significant
177 change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 Norton expresses a view widely held among government officers[3]
614 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

423 landholding groups such as the clan to require adjustments in the
614 way they exercise their land rights. He feels that persons with
[429] authority over the use of a clan's land seldom interfere when it is used for food gardens, but exercise their prerogatives more strictly when permanent cultivation is proposed. He therefore considers that registration clearly defines individual rights for the first time and that this is done by public decision of the whole clan.

We would maintain that the clear differentiation of prescriptive rights of individuals and small groups in Sivepe owes nothing to
[429] cash crops or allocations by land controllers or the whole clan. The function of the registration scheme is to guarantee these rights for cash crop land and to provide facilities for transfer which are no less flexible than those which already exist in the area.

423 Meek (1949:285) points out that new methods of establishing security of tenure should follow the current local tenure practices because 'the manner of recording rights necessarily affects the form that landholding may take'.

In mid-1960 39 people with interests in Sivepe land lodged applications with a Cadet Patrol Officer for registration of land usage rights in 8 blocks of land (perhaps 10 acres). Under the Higaturu Council Registration scheme the legality of the registration was uncertain. The Orokaiva were not aware of this and accepted registration as binding. Many people thought that the application forms they received and filled out constituted registration (which they did not). Late in 1963 an officer conducting land registration visited the village but the people claimed that he would not register their blocks because he was dissatisfied with the lack of preparatory boundary clearing. The type of information sought by officials in completing the application forms reflects assumptions about clan ownership which do not fit the actual tenure situation.

[429] If the holder of prescriptive rights should wish either to have them confirmed as permanent rights or to transfer them to one of his kinsfolk any official recognition of an artificially large group as holders of residual rights could provide a precedent for influential persons in that group to extend their sectional interests to include land held by others in the group.

Similarly encroachment could occur if members of a group assumed to hold rights jointly are allocated permanent rights without attention being given to the interests of persons who in fact hold the land in severalty.

The distribution of power would be realigned with a stereotype, transfers would be impeded and litigation increased unless the

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 A registration scheme would function best as a mechanism for
423 resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no
[578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 We contend that it is legitimate to extrapolate our local in-
[171] formation by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 Finally, we wish to indicate the general significance of the
423 type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

[179] However, different proposals had already gained wide currency;
[654] whereas the Administration had previously refrained where possible
[383] from participating in the local development of rubber, agricultural extension services have been expanded in response to widespread renewed interest among the villagers and Department of Agriculture staff have recently established a factory near Ombisusu village on the scale considered suited for economic viability. It has an optimum capacity for the production of sheet rubber on smallholdings of 20 to 50 acres under high-yielding trees.

[425] Part of the programme at Ombisusu has been the redistribution of land for development as individual cash-crop blocks similar to the Yega cocoa project.[1] Demonstration of this development has undoubtedly further stimulated local interest in rubber. It is calculated that the problem of capital for investment in such a factory, a figure of the order of $240, might be met in the absence of sufficient village entrepreneurs by the co-operative ownership of facilities by a small number of neighbouring growers.

On the other hand the European who has been buying rubber from the villages believes that 6 smallholders, for instance, each with 6 acres, could be expected each to receive a net annual income on present prices of about $360 (after repaying a loan) only if the producer were to tap daily for 310 days a year on a semi-commercial standard and produce good quality sheet rubber without direct supervision from a fully qualified officer.

He envisages instead a pilot project which would involve the planting of about 100 acres with high-yielding seed at Sasembata, for instance, where the project 'would be partially financed by some 34 rubber areas now in bearing' and, having little overhead cost, 'could afford European supervision by subsidy from the Administration'. The new land might be made available on a co-operative basis; this should be developed by labour receiving 'a minimum basic wage and the unpaid value be credited as units held in shares', whereas the villagers tapping existing stands could sell the latex at the project centre on a poundage basis.

The Department of Agriculture's budget-planning, incorporating the possibility of small loans to producers, has been carried out on the understanding that all smallholdings should be held and worked by an individual or nuclear family.

[435] Establishment costs might be reduced if the building standard were to be lowered judiciously, if standard agricultural equipment

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[1] The participants in these schemes were reported to be keenly interested in the possibility of receiving registered title under the Land Tenure (Conversion) Ordinance, 1964.

Appendix E

Cases of land transfers

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This section presents our information on the only recorded cases concerning land inheritance where the ideal norm of lineal transmission has not operated automatically and where we could obtain enough detail to indicate clearly the factors involved in the devolution of specific rights to a particular beneficiary from among a range of candidates.

I

One of the 2 Berekipa men who came from Hamburata and established Pusahambo village was given a parcel of Timumu land and was able to re-activate rights in some of the land which his father had held. Nine acres in all, this was the only land held by the Berekipa people when it was inherited by the present senior householder of the lineage. The son of the other immigrant who claimed no land in this area still depends on the senior man for gardening rights and on his own wife's brother of Arehu lineage.

II

His wife's classificatory brother (d7), just before his death about 1960, set aside 4 acres of land close to Sivepe to be inherited by their son (e2J); this Arehu man had no children and the rest of his land[1] was inherited by his mother's 'sister's' son (d9), another Jegase (Bebehupa) man with whom he had once lived at Korogombata and later at Awala where he had moved from Sivepe several years before his death. He had maintained close relations with the 'sister's' son (and clansman), the youngest Berekipa householder at Sivepe, and was buried by him. The transfer of land to him was sealed by a return gift of £5 and a pig; this was given, of his own accord, by the beneficiary's father to

[1] He had already given a small parcel of land to his wife's brother who was also his sister's husband and lived at Sivepe. This man's heir (e4S) has now planted coffee on it.

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425 the deceased's father (an old man soon to die himself) so that, he said, the transfer could not easily be contested later. Each of the 3 Berekipa householders has since cultivated a subsistence garden on the land.[1]

III

One brother of the Arehu man who accepted the return gift was the mother's father of the Berekipa man who received the land; another brother had held land consisting of parcels mostly adjacent to this and these were inherited by his daughter, an almost totally crippled woman living at Sivepe (d5). She has granted the Berekipa man rights to her own parcels; it is agreed that these rights differ significantly from those he acquired about the same time to the 4 acres nearby: he claims effective control of the use of the land on behalf of the woman and her illegitimate son until he is adult. He agrees that the son would inherit the land from her.

The woman and the boy live in the house of her mother's sister's son, the senior Berekipa householder. The younger man now uses and expects ultimately to inherit the land of this householder, his father's adoptive father. He would no doubt prejudice these rights if he were to lay permanent claim alike to both areas which the Arehu have passed to his control. However, he has planted a coffee plot on land he controls on behalf of the woman and neither expects that the income should be shared in return for such permanent use of the land.

IV

The only Arehu person at present exercising rights to Arehu land is the only adult male representative of the lineage in Sivepe (d4J), a widower with 1 daughter married into another village. About 1954 a younger brother moved to Agenahambo and on to the land of his wife's lineage, some of which he anticipated his young sons would eventually inherit. The elder of the 2 brothers claims that he now controls all the land they received from their father and that unless the brother and his sons return from Agenahambo they will forfeit their claim to Arehu land in favour of his sister's son, to whom he proposes to pass on his own rights. This man (e2J) is the Berekipa householder who has already used his links with other Arehu to acquire land rights; he has a current garden on the resident mother's brother's land. However, he is doubtful as to the outcome when the issue of the other land is forced. It is impossible to predict what will

[1] We do not know what obligations to the Arehu they incurred on former occasions for temporary use of their land.

[TEXT CONTINUED ON PAGE 114]

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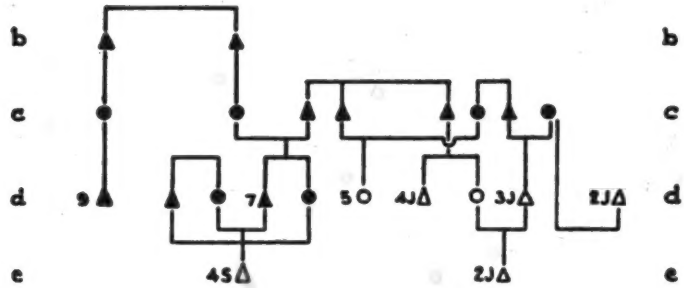
SELECTED GENEALOGY I



428 happen if the absent Arehu man and his sons do not return to re-
425 inforce their rights by continued residence and cultivation of the land.

However, it is clear that whatever the result of the statement of his intentions, the resident Arehu man stands to place others in a position dependent on him. He has ample land but no sons or close male patrikin in the village; little opportunity to manoeuvre is afforded by the tenuous relationships he has with Jegase clansmen other than the Arehu and Berekipa. By playing one of these against the other he can create new obligations to himself among the Berekipa, his sister's husband's group, to whom he has granted planting rights for some time, or perhaps attract members of his lineage back to the village.

Postscript. Since our departure the Arehu man has succeeded in attaching a newly-established household to himself: the exchange transactions for his daughter's marriage (to a Soroputa man) have been completed. He claims that he accepted only £9 and 2 pigs from the husband's kin although more had been offered. His reason for rejecting the larger offer is that the married couple have made their home next-door to him at Sivepe; if they had built at Soroputa, he said, he would have accepted (E. Waddell: personal communication).

However, the point of interest here is that he has been asserting that his daughter's husband will inherit his land. We do not know whether the husband is expected to inherit the land the Arehu man now controls for his brother or only parcels he himself inherited; it does not seem likely that in either case his stated intention to pass some of the land to his sister's son could be discounted altogether, short of an improbable breach in relations between him and his sister's household.

V

The only surviving members of Sesewopa lineage are 2 sisters, 1 of whom lives in Sivepe married to a Seho man. She claims 4 parcels of land inherited from her father and exercises her exclusive rights to the produce of trees there but gardens on her husband's land. She jealously protects the rights of her sons to inherit this land and most members of other lineages concede that because they are living in the village they will acquire the land whereas their mother's sister's sons at Kiorota will have no rights. However, in the past the Sesewopa have been closely associated with the Bebehupa and the leader of this lineage, without openly opposing her claim, takes other opportunities to advance the view that, for the present, title to the land rests with her father's kin whom he insists he represents.

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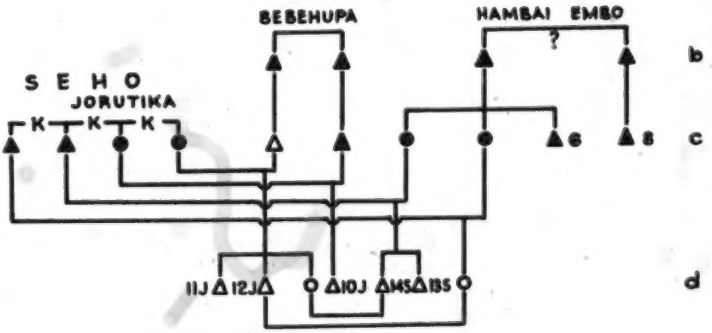
SELECTED GENEALOGY II



VI

425
428 One Jegase lineage, Hambai'embo, has recently died out and its land has been transferred to members of other lineages and clans. The land of 1 man (c8) was divided when he died without sons or brothers. Three parcels were inherited by his daughter's son (e6S) and the rest were shared between 2 men of Bebehupa lineage (d9 and d12J), who lived in the same village as he.

VII

Several other parcels of land of Hambai'embo lineage were inherited by 2 Seho men (d13S and d14S) from their mother's brother with whom they had lived in Euru village. Neither this Jegase man nor his brother had sons and on his death rights to some of his land were transmitted to the sister's sons and some were assumed by his surviving brother. As this man had no family he lived in the household of his sister's daughter's husband (d12J, one of the Bebehupa men just mentioned) who inherited the land when he died. This heir and the Seho men have made conflicting claims to 1 parcel formerly held by the Hambai'embo; it is quite possible either that there never was a clear-cut division of the paternal land between the brothers of that lineage, although they seem to have lived and gardened in different areas, or that the dispute centres on questions about the shares inherited by the surviving brother and by the sister's sons of the first brother to die.

VIII

Three of the 4 Bebehupa households in Sivepe have current gardens on land of members of Jorotika lineage of Seho clan at Sivepe. The mother of the head of one of these Jegase households (d10J) was a member of a genealogical branch of Jorotika which has no resident members. The land of his mother's brother (who has been absent in Port Moresby for about 20 years) is at present controlled by the gardener's neighbour, another Jorotika man (e4S), who has confirmed that the area now used by the Jegase man may be passed to his son. His mother had been the only Jorotika person to use it continually in the past.

IX

The 2 other householders are brothers (d11J and d12J) whose mother belonged to a second Jorotika subgroup. One of them (the leading member of Bebehupa) has been making several successive gardens nearby on the land of his mother's brother who lived in Sivepe. His wife's classificatory brother (d13S) controls this portion of lineage land as a member of the same Jorotika subgroup; he is the most prominent and influential member of the Sivepe branch of Seho clan but he was not consulted on the question of

425
428 the transfer of the other Jorotika land. He has dismissed the Jegase man's claim that he and his brother have rights similar to their lineage-mate's (d10J).

The 2 disputants are the same parties who made conflicting claims to the Hambai'embo land.

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[311] [136] [417] [2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

241 was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva 443 a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

241 An important factor in the growth of interest in cash cropping 657 has been the implementation of a variety of land tenure and marketing schemes, directed entirely towards the indigenous producers and in part initiated by them. Since 1957 the Higaturu council has [425] been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context 474 of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

454 In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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1 See Howlett 1965, for a detailed description.

2 See Crocombe and Hogbin 1963:89-93.

3 Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

4 See Crocombe and Hogbin 1963:94-6.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

241 (425) often high. A large proportion of the ex-servicemen settlers in the sub-district comprises former Orokaiva villagers and, up to 10 December 1964, the DASF in Popondetta had received requests from thirty-five villages in eight different census divisions for the conversion of clan lands to individual cash crop blocks under the 1963 Ordinance. This suggests that intending cash croppers see their best opportunities as lying outside the village environment. In acknowledging this, an important factor is, according to Morawetz (1967:18), the advantage of having a consolidated holding instead of fragmented and often widely scattered plots, which are wasteful in terms of work organisation and therefore productivity per labour unit.

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

* Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

rights to the majority of the lands are shared by three sub-clans: Tandai'undi, Andiriha and Jego'undi.(1) In view of the extent of warfare and population movement in the past, it is likely that various clans or sub-clans have occupied this land at various times(2), but the passage of time erodes away the historical facts from the memories of the living and what is important today is not the facts themselves so much as the traditionally accepted version (or versions) of them. The accounts given to us accept the Tandai'undi as the 'original' rightholders in this area, and the Andiriha and Jego'undi as having acquired certain rights which are perpetual provided occupation is continued and relations between the sub-clans remain amicable. The stability of residence which resulted from the abolition of warfare has no doubt resulted in a longer term identification of particular groups of people with particular areas of land, and this identification can be expected to become increasingly closely defined with the passage of time and the increase of population.

As noted on pages 14-15, the Tandai'undi transferred rights in the Inonda land to the local Andiriha sub-clan in return for valuables, pigs and women. The precise rights obtained by this transfer are not clear for some contingencies which have subsequently arisen (such as cash cropping) were not foreseen at that time and other conditions were tacitly understood in terms of indigenous concepts of rights to property. The deal undoubtedly gave the Andiriha rights to plant food crops, hunt and forage, though it seems likely that they were not given rights of disposal outside the clan (and probably not outside that particular sub-clan which negotiated the deal).

Presumably the rights of the Andiriha can be expected to strengthen with the passage of time and continued occupation, but even though they have now enjoyed nearly two

(1) It would not be surprising if, in the event of an investigation by the Lands Commission, Urio people also claimed rights to this land (i.e. if they wished to challenge Mr. Culriche' earlier decision - see page 15).

(2) This seems to be general in the Orokaiva territory according to Williams, 1930:151-80; Chinnery and Beaver, 1915 Appendix 2.

423 generations of undisturbed occupation and have reinforced their
614 position by frequent marriage connections and subsequent kinship
425 ties with the Tandai'undi, they still recognize that some residual
rights are held by the Tandai'undi. The extent of these rights cannot be closely defined except in relation to specific situations. For instance all parties seem to be agreed that the Tandai'undi could not plant the Inonda land without the approval of the leader of the Andiriha sub-clan and in fact they neither plant nor hunt there. Likewise, it is agreed that if the Andiriha died out their rights would revert to the Tandai'undi. Although there is no disagreement about rights of this nature, trouble would almost certainly arise in the event of incidents (such as cash sale of land to an outside group) for which there is no traditional precedent.

423 It is perhaps significant that most of the Inonda
614 people have planted their cash crops on the other side of the Girua river on land to which the Tandai'undi have no claim. Moreover, a recent survey by the Lands Department shows Inonda as Tandai'undi land, though the Inonda people consider this to be an error.(1)

614 According to the oral history of the Inonda people,
425 they have acquired land rights at various times by discovery and
423 settlement of vacant land (at Aramba), by permissive occupation (at Wauta and Sambogo) and by customary transfer (at Inonda). Conversely they have lost rights by defeat in war (at Aramba) and by voluntary abandonment (at Wauta and Sambogo).

614 The Inonda people have shifted their village at least
425 eight times in the course of the past fifty years and on the first
423 three occasions they shifted to completely different areas of planting and hunting land. With each shift they have acquired some new land rights and lost others. In no case have they acquired all rights to the lands they moved onto and in no case have they lost all rights to the lands they left.

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(1) Map held by National Mapping office entitled, "Land Tenure in the Ihaine'embo Native District, Orokaiva, Northern District" prepared by W.A. McGrath 7.4.1959.

When they were originally chased out of Aramba the defeated people fled but they still claimed residual rights in the Aramba land and hoped that their former rights could be reactivated at a later date. Had government control not been introduced at that stage they may either have fought and regained the land, or have abandoned it to the conquerors. In fact, although the conquerors had control of the land, the question of residual rights lay in abeyance until the Mt. Lamington eruption in 1951 when most of them were killed. Thereafter, the people of Inonda (along with Andiriha and Jego'undi people living in other villages) began to reassert their dormant residual rights by paying periodic visits to the area to gather wild foods. The Andiriha clan have delegated planting and hunting rights to the Havoni'undi and Umburahaha clans which live nearby at Sewa.(1) They claim to have made it a condition that only subsistence crops be planted. Any attempt to separate the residual rights of the various sub-groups of the Andiriha and Jego'undi from one another, and from the rights of conquest of the Sangara tribes, and from the rights of occupation of the Havoni'undi could only be made on arbitrary criteria.

During their stay with the Sauhaha clan, the Andiriha acquired gardening rights which they relinquished on their departure. Since then the Andiriha have frequently acquired wives from Sauhaha and have thus reinforced their earlier connection by these affinal and maternal links. As the Inonda area is short of sago, which grows in abundance on Sauhaha land, these relationships enable the Inonda people to continue to make sago on Sauhaha land.

In the course of their residence at Sambogo, members of the Inonda sub-clans cleared garden sites and planted sago, coconut, breadfruit and other trees from which they still collect fruit. The Inonda people claim that as their forefathers

(1) The Jego'undi lands at Aramba are looked after by members of that clan who live at Bofu and Sewa. The claims of the Andiriha and Jego'undi to the Aramba area were challenged by survivors of the Sangara people shortly after our field survey was completed. In recent months all parties have increased their "acts of use" in the area. The case is now before the Native Lands Commission.

cleared the virgin forest, any of their number could return and take up residence on the site of their previous village and again use their abandoned gardens (which are now covered with second growth). The area is too far distant to be planted while living at Inonda. On the other hand they recognize the residual rights of the Tandai'undi to the garden land, and the exclusive rights of the Tandai'undi to hunt in the bush and fish in the river. It is apparent that some rights in the area are retained by each party, but it is probable that the Inonda people could not in fact resume residence there without further negotiations with the Tandai'undi.

About twenty years ago a man of the neighbouring village of Urio who had no sons of his own (nor any brothers with sons) gave a large block of land named Sesehauta, which lies adjacent to Inonda, to his sister's sons - the members of the Jego'undi sub-clan of Inonda. In an attempt to avoid future dispute he held a feast to mark the transfer. At the feast, the Jego'undi gave pigs, taro and traditional valuables to their mother's brother and these were distributed among his clansmen. About two years ago the people of Mosou came, at the suggestion of Native Affairs officers and with the approval of the Jego'undi, and established their village on this land. They did not make any payment, nor do they propose doing so, though they do make occasional informal gifts of betel nut and sago to the Jego'undi. Although most Mosou people still plant on their own lands a mile or two away, several of them plant on the Jego'undi land. The Mosou people do not hunt on this area as they have ample other hunting land, but the Andiriha of Inonda sometimes do. This is another case of land rights being shared by several clans and sub-clans - the donors who retain residual rights, the donees who hold some current use rights, the Mosou people to whom some rights of residence and land use have been delegated, and the Andiriha of Inonda with whom the Jego'undi sometimes share hunting rights and who consider that, as the dominant sub-clan, they should be consulted on questions of disposal or transfer of rights to the land. Neither of the two adult members of the Jego'undi in Inonda have sons, though one has daughters. The future rights to the Sesehauta land will presumably remain in the balance for some time.

614 Other sub-clan rights include those to burial grounds
423 and tracks. Once land is set aside and used as a burial ground
425 it remains vested in the descent group even after it is no longer
764 used for burial. Burial grounds may, however, be a post-
[177] contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

613 The lineage: The Andiriha sub-clan of Inonda is
423 divided into four lineages but the Jego'undi sub-clan consists of
425 a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

piece of land named Ombarahambo (which had previously been held by the leading Joremba'embo lineage). Some of them later returned to Hohota, while others remained in Inonda.(1) Later again, one of the original lineages (Paru) died out and its lands have been absorbed by the remaining lineages.

The Jego'undi sub-clan was allotted land at Kakitasuru and Ajerita. In later years a Jego'undi man cleared a piece of virgin bushland at Eumo and it is consequently regarded as their prerogative to plant that portion.

The following table showing the lands of each lineage in Inonda was compiled from incidental data and may well contain minor discrepancies. It will be noted that the Joremba'embo lineage is divided into two sub-lineages. A sketch map of the land is shown on page 105.A

(1) The Jegotumo are now divided into two distinct sub-lineages, one in Inonda and the other in Hohota. While they function as a single lineage for certain social purposes, the Hohota sub-lineage does not exercise any land rights in Inonda. The Inonda sub-lineage, on the other hand, continues to use some trees and gardening land in Hohota.

A [See Category 102, p. 105--Analyst]

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha sub-clan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

Alienated land

432 The only alienated land in the Inonda area is a mission lease of five acres close to the village. It was purchased by the government for the sum of £5 and leased to the Anglican Mission for a school site.(1) The purchase money was paid to the then head of the Andiriha sub-clan but it is said that he received it in his capacity as leader of the lineage which had occupied this land (or as successor to the head of the extinct Paru lineage). The money was not shared. The main Popondetta-Oro Bay Road runs through Inonda, but the actual purchase of the land by the Crown has not yet been completed.

Transmission of land rights

425 Examples have been given of the transfer of land rights between clans (pages 14-16, 21-23) and of the succession to rights of a lineage which died out (page 26). Within the lineage the ideal pattern of inheritance of land rights by individuals 428 613 is patrilineal. The sons often hold rights jointly, though in some instances the lands have been divided between sons. As the number of resident adult males in any lineage does not seem to have exceeded three either in the present or the remembered past, joint rightholding has not occasioned undue difficulty. Although it is customary for the rightholder who is senior by birth to act as spokesman for the rightholding group, he does not appear to hold any superior rights to his co-parceners. While the patrilineal pattern predominates it is modified by factors of residence, family size, adoption, availability of land, and matrilateral and affinal connections.

The people traced the inheritance of proprietary rights to twenty-two out of thirty-seven blocks of land by direct patrilineal descent from five initial rightholders. It is appreciated that deviant relationships (adoptions, illegitimacies, refugees, etc.) are often forgotten, particularly in earlier generations, and memory assimilates the realities to the ideal pattern. It is therefore possible that inheritance was not so direct in fact.

(1) It is not at present in use as the school was shifted several years ago to Hohots.

In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

household head. Only one man looked after his own hambo and di, and he was an elderly man who spent much of his time at home. The last household had no valuables. It consisted of a young couple and the man had given what few articles he possessed for his wife's bride-price. He has a job at present and is meeting his traditional commitments with cash.

The processes by which the valuables were acquired are shown in the following table (in equivalent cash values):

Table 6

Acquisition of hambo and di

	Inheritance	Cash purchase	Barter	Bride-price	Made or caught	Other exchanges	Total
Hambo	9. 6.0	18.1.0	10.16.0	6.10.0	2.19.0	6.17 0	54. 9.0
Di	2.17.0	1.0.0	3. 0.0	3.14.0	10.11.0	2. 5.0	23. 7.0
Total	12. 3.0	19.1.0	13.16.0	10. 4.0	13.10.0	9. 2 0	77.16.0

(These figures are slightly different from those listed in Table 5 above as these exclude details for one household which was in mourning, and include details of articles previously held by another household but since stolen.)

In traditional Orokaiva society the possession of hambo and di demonstrated a man's prowess or that of his forebears. Wild pigs' tusks form the main components of most hambo and the spearing of wild pigs was a hazardous task requiring skill and courage. The next most important components were sea-shells, and they could only be obtained by contact with coastal folk (or from others who had contact with coastal folk). Such inter-tribal contacts appear to have been infrequent and risky. Feathers were obtained by snaring birds, a time-consuming process involving patient watching of intricately constructed traps and snares. The introduction of shotguns has facilitated the hunting of pigs and birds. There is now less skill and less time involved than previously. The trophies are consequently more abundant and of lower value. Likewise trading with the coastal people no longer requires courage or detailed

CHAPTER 5 - LIMITATIONS ON PRODUCTIVITY

Features of the tenure situation which inhibit productivity

614 423 518 The overlapping claims of various clans and sub-clans cause uncertainty as to the rights of each, in particular with respect to lands planted with cash crops. To illustrate this point we will quote several examples. During our stay in the village one Inonda man had a temporary job as foreman in a nearby construction camp. Due to completion of a particular phase of the work some workers were dismissed by the European overseer and these included some Tandai'undi men. These men then came to Inonda village and reminded the foreman that Inonda was "their" land and that if he wanted to remain on it, he had better get them their jobs back. This foreman has no cash crops and claims the reason for this to be his fear of trouble with the Tandai'undi. With one exception, nobody has cash crops on Inonda land. The Inonda people dare not take the case to the Lands Commission in case judgement is given in favour of Tandai'undi, in which case the Inonda people could lose all their rights.(1)

614 423 425 518 Those Inonda people who have cash crops in production have planted them on the far side of the Girua river. The land where they are planted was occupied until about forty years ago by the Endehi'undi clan. The Endehi'undi were defeated in war shortly after European contact and the few survivors scattered to various villages where they took up permanent residence. This land was apparently abandoned and not used again until 1952 after the Mt. Lamington eruption when some people of the neighbouring Jau'undi clan of Hohota village cleared the bush and planted food gardens there. After the Mt. Lamington danger passed most of them returned to their home

(1) The Native Lands Commission in the Territory appears to have awarded title on a basis of historical precedent much more frequently than on current needs or recent arrangements. It would not be surprising if, in the event of a case before the Commission, rights were awarded to the Tandai'undi (in pre-contact times, of course, occupation of the land and the relative strength of the two parties would have been the main criteria).

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

not legally binding.(1) In fact, however, the parties to this dispute assume that the officer concerned does have the necessary power to enforce the agreement, and thus it is effective for the present, particularly as it has been reinforced by registration of the land with the council. The Endehi'undi nevertheless intend to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

Our third example concerns the Jego'undi sub-clan of Inonda. Neither of the two adult members of this sub-clan has planted cash crops. One of them had prepared ground for planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Busia v. Havini in which it was ruled that although Regulation 39 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soupe v. Weiiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

614 tween sub-clans or villages.(1)
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[657]

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff
614 do have the power to enforce their "recommendations". The
423 fear of sorcery is still recognized as a sanction against trans-
598 gression of property rights and informants quoted instances of
626 sorcery having been used to punish transgressions of fishing
754 rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

614 The definition of boundaries and owning sub-clans
423 would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

721 In the pre-contact era warfare was probably the most
425 important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

to maldistribution of land.(1)

The individual lacks security of tenure for his cash crops, but not for his food crops. In the case of the coffee blocks on Endehi'undi land a reasonable degree of security has been achieved by registration under the Higaturu Council scheme.(2) Nobody dares apply for registration for cash crop blocks on Inonda land for fear of objections by the Tandai'undi but even if these were overcome, there would probably still be inadequate security of tenure for cash crops even within the sub-clans. The size and value of blocks hardly merit the cost in time and money of precision surveying and government registration, and the present Higaturu Council registration scheme would appear to us to be well suited to the present conditions, if it was supported by the Administration and by appropriate legislation.(3)

Economic trees and other personal wealth appear to have always been held either by individuals or by small groups of siblings (though subject to specific obligations to kin). The possession of income-producing trees by individuals is thus in harmony with traditional concepts of rights to trees. In the traditional culture, however, rights to trees did not necessarily coincide with rights to the land on which they were planted, beyond the right of access and the use of such land as was

(1) Formal provisions for transfer under certain circumstances are contained in the Land (Tenure Conversion) Bill 1963. This bill has not yet been passed by the Legislative Assembly. The transfer system provided for, however, does not apply to any land until it has been dealt with by the Land Titles Commission. Unless the Commission is provided with enormous resources or delegates its routine functions to local bodies it will be unable to provide such facilities for all but a small fraction of the Territory for many years to come.

(2) The Higaturu Council scheme is explained in Appendix A[A]

(3) Official policy as expounded by the Minister for Territories (Hasluck 1960:1019-21), states that the only acceptable form of title is that issued by central government (and thus the Higaturu Council registration scheme is not acceptable). Administrative practice has not been consistent, and at some times the scheme has been given official support, while at others instructions have been issued for its discontinuance or for discouragement of expansion. Present practice is to give the scheme cautious support, but there is considerable doubt as to whether the council by-law which established the scheme is legally valid, or whether councils have the power to make by-laws on such matters. To date, the question has not been tested at law.

A [See Category 657, pp. 89-96--Analyst]

429 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

[241] [613] There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening areas of individuals. People frequently plant food crops on the land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:778.

whether it merely provided facilities for recording customary land allocation; and (b) whether or not a council had the legal right to undertake the scheme at all. The answer to the latter question is really dependent on the answer to the former. This in turn depends on the legal definition of what constitutes custom, for if the scheme is considered to be in accordance with custom then it is legally valid, whereas if it is not in accordance with custom it is invalid. Various opinions have been expressed, but in the absence of clarifying legislation or a test case the matter remained one for administrative discretion.(1)

During 1958 the council passed a rule (Rule No.4 of 1958) which required that before any man could plant cash crops, he had to obtain the approval of the leaders of the relevant clan or clans. This rule was disallowed by the Administration. In 1959, a new rule was adopted (Rule No.2 of 1959) which stated in the preamble that "...tree crops should only be planted after notice has been given to the District Officer or District Agricultural Officer...so that help can be given efficiently in such things as transport and marketing and in control of pests and diseases. It is also necessary that future quarrels over land be avoided and that each man should feel secure in the knowledge that the benefits of the work he puts into his crop will come to him." The rule provided that no person could plant coffee or cocoa except on land which had been allotted to him by custom "to be used by him alone." Planting was not to commence until a chain and compass traverse had been made by an officer of the Department of Native Affairs. The rule was approved and implemented, though due to staff shortages it has not been possible to meet the demand for surveys, and planting generally precedes survey in fact.

While the rule itself made no provision for it, the draft form of agreement stated that the holder of land registered under the rule could transfer his rights to any indigenous person at any time. The Administration advised the councillors that this provision for transfer was not acceptable and a new form of

(1) The Lands Commission Ordinance 1962, which was assented to in April 1963 after this paper was written, makes it clear that councils will no longer have the right to engage in such schemes. It is nevertheless possible for the Commission to investigate and ratify the registrations made by the council.

agreement was drafted and adopted. It reads as follows:

"Agreement to the right of land use.... It has been agreed by the people of [name] clan (or village) and all other interested parties that [applicant's name] has had allocated to him by native custom for his use alone the land marked on the attached plan, and that no other person has a claim to the land. It is also agreed that any coffee trees planted by [the applicant] on the land are his sole property and no other person has claim over them."

The form is dated, signed by the allottee and by "the clan leaders" (in practice it is usual for all resident adult males in the "owning" clan or sub-clan to sign), and by the local councillor. It is witnessed by an officer of the Department of Native Affairs. A map of the land is attached to the form. Forms and maps are prepared in triplicate and one set was to be held by the applicant, one by the council, and one by the District Office in Popondetta. In practice, the council copy is also held by District Office.

Registration under this new rule commenced in 1960, and surveying and registration of plots have continued to the present time. At 1st January, 1963, 588 plots covering 1,120 acres had been registered. A further 1,029 applications for registration had been made but not yet dealt with. Although it was originally intended that no plot would be registered if it was less than two and a half acres in area, many smaller plots have in fact been dealt with and the registered plots at Inonda village measure 1.4, 2.6 and 1.6 acres respectively (though these areas have not yet been fully planted). Some areas of under one acre have been registered. Wherever possible, villagers are encouraged to allocate blocks contiguously, not only to facilitate surveying and identification of land, but also to reduce the extent of border clearing necessary, and to facilitate pest control and extension services.

Provisions for ensuring higher standards of husbandry and output are contained in Rule No.3 of 1959 which requires that persons with cash crops must:

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

657 abolished by agreement of the two Ombi-Tara clans,[1] including both
423 rights to the 800 acres which have been converted and to land
425 remaining outside the scheme.
614 Each twenty acre block is now held under individual registered title by one man, the blockholder. No rights are held in any block by the clans or other entities.

Lands held by members of the Musu and Kusi clans are still separate, and a large tree stump continues to mark the boundary between them. However, while individuals formerly had some rights in clan land held under customary tenure the land outside the conversion scheme is now held communally by agreement of clan members.[2] The clan leader has control of the unconverted land and his approval must be gained by anyone wishing to cultivate it.

However, each man is considered by the villagers to have the presumptive right to clear the bush on unconverted land behind his block in order to extend his planting as far as the clan boundary. He may do so without consulting the clan leader, and regardless of who held rights to the land under the old system. This right is not recognised in law, and appears to be derived from traditional practice. A similar presumptive right of extension at the rear of one's block was agreed upon by the Yega villagers (Dakeyne 1965:136).

The conversion process

657 The Department of Agriculture carried out a preliminary survey
423 of the land to be converted in July and August 1964, clearing bush from what was to be the access road and along the boundaries of the blocks. During December 1964 and January 1965 field staff of the Land Titles Commission, assisted by Department of Agriculture personnel, completed the surveying and marked all corners with cement and wooden pegs.

657 Thirty-five applications for blocks had been formally lodged up
423 to 9 February 1966 when the Land Titles Commission conducted its
425 hearing. No objections were raised so unless there is an appeal within ninety days, individual title in fee simple would be granted to each of the thirty-five on 9 May 1966.[3] Eight more men wished to apply in the near future. Since only forty blocks were marked out, three of these eight men intended to apply for blocks as yet unsurveyed.

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[1] See p.27 ff for some problems raised. A

[2] In law it is regarded as being held under 'customary tenure'.

[3] There were no appeals. Titles had not been issued at the beginning of November 1966, but it was expected that they would be issued soon.

A [See Category 423--Analyst]

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kuei clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kuei land, reportedly because of a shortage of Mumu land. The Kuei clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

657 initiated and hence are not party to the agreement to set aside 800
423 acres for individual holdings. Problems could arise if, on return-
177 ing home and finding all forty blocks occupied, they should refuse to accede to the new arrangements. It also remains to be seen whether the man of Musu clan whose block is on Kusi land will be permitted to extend his holding beyond the present twenty acres. The leader of the Kusi clan suggested to us that this would be allowed.

Concepts of title. While everybody interviewed said that the blocks belong solely to individual blockholders it remains to be seen whether in future all people will be prepared to cede to the blockholders all rights which they previously held in the converted area.

There was considerable confusion concerning the exact time that the blocks became the property of individual holders. Most people considered that this occurred immediately after the application forms had been signed, while some thought it was as soon as survey had been completed and others thought it was after the blocks had been distributed. Nobody realised that the block did not legally become his until ninety days after the Land Titles Commission hearing.

No one understood the purpose of the Land Titles Commission hearing. A genealogy was prepared in the hope that this might be required by the Land Titles Commissioner. At the hearing, the Commissioner read out the names of the thirty-five applicants and asked each applicant to call out the number of his block. The Commissioner explained that he would send a list of the applicants' names to Port Moresby and after ninety days each man would get a pas[1] - the title document - saying the land was his.

After the hearing the Ombi-Tara people indicated in conversation that they thought the Commissioner had come to check that each man knew the number of his own block. They considered that the piece of paper which they would get merely confirmed that each man held his own block as he had done for the past seventeen months. This lack of understanding by the villagers of the true function of the Land Titles Commission hearing could be significant if objections to conversion were raised at the hearing.

657 Development of a market in land. The Administration hopes, by
423 converting land from customary tenure to holding under individual
425 registered title, to facilitate the development of a market in land. This is essential to ensure that no person with agricultural ability and initiative is deprived of land. It has been pointed out by

[1] A neo-Melanesian word meaning 'letter'.

657 Lord Hailey (1957:802) in Africa that people showed great reluctance
423 to face commercialisation of land rights, by sale, mortgage or lease.
425 I cannot say how far conversion will contribute to the development of a market in land as it is not clear whether the Ombi-Tara people understand that in law each man may sell his block to anyone he wishes. An attempt was made to gauge this with three questions.

If any man from Ombi wanted to sell his land and go and live in Port Moresby, is he allowed to do that?

Would he have to discuss it with somebody first?

What if the clan leader said 'no': could he still sell it?

Five people, including Charles and the two clan leaders, replied that individuals could dispose of their blocks without consulting anyone, even if the clan leader opposed the sale. Ten more said that a man was allowed to sell his land but would have to discuss it first, and could not sell if the clan leader was in opposition. The remaining twenty-five said they could not sell or did not know whether or not they could sell. A common reply was that no one wanted to go and live in Port Moresby but that if anyone did go he would leave the land in the care of his son or some other kinsman.

657 Cash crops planted before conversion. There are a number of
423 cases at Ombi-Tara where cash crops planted by one man before conversion are now situated on another man's block. The usual solution to this problem has been for the planter (or in the event of his death, his heir) to retain sole rights to the crop. When the trees die out the land will revert to the blockholder, and the planter may not plant more trees on the same land.[1]

There have, however, been some variations from this solution. Where the crop concerned was cocoa the planter has in many cases abandoned it, allowing the blockholder to clear it and plant rubber. In one case sole rights to the cocoa will be retained by the planter until the rubber begins to yield a return in about seven years, when rights to the cocoa will be ceded to the blockholder. In another case the cocoa is jointly harvested with planter and blockholder sharing the income received from the sale of beans. Each of these solutions was worked out by negotiation between the persons concerned, and appears to have been determined largely by considerations of kinship and mutual obligation.

The existing situation contains potential difficulties. The blockholder, or his heir, may decide that he needs the land on

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[1] This seems to follow traditional Orokaiva practice, as described by Dakeyne (1965:61): '...the right to harvest the produce of a permanent tree is vested in the planter or his heir, irrespective of the rights to the land on which the tree is planted.'

657 (iii) As was the case before conversion, a man whose crops stand
423 on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] (vi) Residence patterns appear also to be in accordance with
[198] traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 Even if tenure conversion alters the tenure system less radically
423 than expected, it is still possible that it may act as a stimulus
182 to indigenous agricultural development. The acreage under cash
433 crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

657 731 423 maternal relatives. Moreover, the fact that these groups have a clan name in common implies very much less than that they have rights in each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Waseta, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended [425] as one of the new style resettlement villages. They were given some [245] land to cultivate and stayed for several years. When the government began to encourage the planting of coffee trees, the Dapari immigrants [426] planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible to plant trees on borrowed land provided the owner consents and the [422] produce from that tree will then always belong to the planter, even when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 The mission at Sasembata formed a kind of community of its own.
361 From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

895 It was traditional for villagers also to supply teachers with
425 land for growing taro. At Sasembata, the mission found it hard to
797 get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely
[731] Papuan. The eruption led to no defection but to a strengthening of
[784] the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst]

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepa and Hohorita

731 My subject of study obliged me, both in Sivepa and Inonda, to
123 inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepa, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pejatei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

731 In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption
[165] (Table 1).[1] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life.
[621] It was the people who chose the site for the village; the Bishop hoped
[361] that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people
[425] nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging
425 sugar plantations there, but this plan was stopped by sugar interests
657 in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

trespassing there. Bishop David recalled, in my interview with him, how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which several groups set up new villages independently. Today, the population of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Sasembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the Sangara people had become rather rapidly acculturated. By the criteria used in the present study, acculturation had progressed rather more rapidly than at Sivepa, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepa: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

It was the general hypothesis of this comparative study of ten displaced communities in the Pacific that displacement would lead to accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the relocated community but lacking the experience of relocation. In the case analysed in the present report, the experience of displacement at Sivepa was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A [See Cat. 116, p. End Map 12--Analyst]

24: Schwimmer E-5 (1966-1973) 1977
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of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

423 425 tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

731 423 425 Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been associated with their land.[17] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

182 423 614 The fears about losing the land which explain much of the tension at Ilimo Camp are a direct consequence of conflicts implicit in Orokaiva social structure. The institution of land borrowing, the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.

11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.

12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).

13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).

14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.

15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.

16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

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1966–1967, however, this fear was not mentioned to me by informants, whereas I often heard of their worries about the danger that relatives from other villages might take their land, goods, and chattels.

18. On the average, an Orokaiva derives approximately half his land from patrilineal inheritance. In accordance with British terminology, I have called this "patrimony land." The other half comes from a variety of sources, mostly from uterine kin.

[pp. 342–400 not processed]

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sowa*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

423 [224] [226] The only local hunting land held by Sivepe people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[657] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6) they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda
[361] is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 472 452 B started his store in 1961 with the relatively large capital of $478, of which $300 was his own money, and the remainder his younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had [474] been selling goods well below cost price. Competition from a [477] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

[426] Group III. Trader I started his store with $200 which was lent him by his younger brother-in-law, who is a clerk with a commercial firm at Lae. The brother-in-law pays all store bills, and I had repaid him $104.

[451] J's trade store was managed by his elder brother, who could neither read nor write and did not keep any store books.

444 474 K started his store with $390, helped by his younger brother who works in Port Moresby. K runs the store on a quasi co-operative basis, with forty-two shareholders belonging to his own and another clan. His brother contributed $200 to the initial cost, and the [499] value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

444 L began her store with $206; when she is away, it is managed by her father.

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
465 to pay hired labour, and are thus forced, willingly or not, to exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
659] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	702
C	334	88	-	422	C	7	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	1,800
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

Liquid assets. The three groups of entrepreneurs show a clear progression in average savings, group I averaging $37.32, group II $212.01 and group III $322.66. The details are given in Table 17. 463 472 454

Table 17

Entrepreneurs' liquid assets

Entrepreneur	Savings bank	Settlers Savings Club	Shares in co-operative or cash society	Cash	Total	Average for group
A	30.00	6.00			36.00	
B	5.30		60		65.30	$37.32
C	42.00				42.00	
D	6.00				6.00	
E	300.90			62.00	362.90	
F*	2.65				2.65	$212.01**
G	?				?	
H	320.00		12.50		332.50	
I	224.00		10.00		234.00	
J	?				?	$322.66**
K	536.00				536.00	
L	198.00				198.00	

* Savings were much higher but used on brother's wife's funeral and food to supplement garden produce during drought.

** Averaged for three persons only. G did not have his account book with him and said he did not remember the amount. J is said to have substantial savings but was not home when the data were collected and his brother did not know the extent of his savings.

The loans received by the entrepreneurs are shown in Table 18. As mentioned above in connection with cash-cropping, there is a negative correlation between extensive cash-cropping and success as an entrepreneur. This is further borne out by the fact that the only three entrepreneurs to receive loans of $1,500 from the Land Board have planted the most cash crops and are among the less successful entrepreneurs. 463 472 426 657

The receipt of a loan to assist in the establishment of a store seems to be correlated positively with entrepreneurial success. It must be remembered, however, that none of the most successful stores had been open for more than fifteen months.

16: Oostermeyer & Gray U-5 (1965-1966) 1967 QJ23 Orokaiva QJ23

Table 18

Loans received

A $1,500 (land board)	E -	I $200 (from brother-in-law for store)	
B $178 (from younger brother for store)	F -	J -	
C -	G -	K $390 (from brother and share money for store)	
D $1,500 (land board)	H $1,500 (land board)	L -	
75%	25%	50%	

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

226 [462] 226 423 614 [431] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by the Yega to exist off their strip of coast; rights to fish over these reefs are held by the clans whose ancestors first discovered them. Any person who catches fish over a reef belonging to another clan must give a gift from his catch to the right-holders. Fish are caught by many [199] different methods but the commonest nowadays is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P.8-B]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

657 731 423 maternal relatives. Moreover, the fact that these groups have a clan name in common implies very much less than that they have rights in each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependance on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Waseta, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended as one of the new style resettlement villages. [425] They were given some land to cultivate and stayed for several years. When the government [245] began to encourage the planting of coffee trees, the Dapari immigrants planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible [426] to plant trees on borrowed land provided the owner consents and the produce from that tree will then always belong to the planter, even [422] when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

361 731 628 Inonda people. They built a da of their own at a very short distance from Inonda; both these da were very close to the airstrip and abandoned now. Although these two da were less than a hundred yeards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohorita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

621 361 [162] Sivepe, with its present composition, goes back in time no further than about 1948 when the village Pamba was built, combining an older Sive and a new defunct village Pusahambo. The census list current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed [231] his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Garoubi were considering moving in and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old [426] jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective [423] of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

his powers of black magic would be undermined by the church if he joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

One of his sons, however, did leave the village to join the A.P.C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

This son, baptised under the name of Lawrence in 1963, is now about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepa. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepa to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepa, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepa. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

Lawrence was comparatively well off, largely because he was a good coffee producer, but also because he received bridewealth from three daughters, continuing gifts from his sons in law and from the

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a [654] resettlement block with a development loan of $1,500 that he [426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6) they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda
[361] is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
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K	150	-	-	150	C	9	
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* Coconut and other trees used for home consumption only have been excluded.

474 177 241 share to the owner of the land. This activity started some time after 1947 and ceased with the eruption of Mount Lamington. It involved "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 241 [427] The pattern of production of the Sivepe rice resembles that of the communal yam gardens. There also, several men may plant together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of [829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 [596] Today, Sivepe has three forms of economic organisation. The dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

471 well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the
241 Australian government's insistence on the planting of village quota's
621 of rubber and coconut. Here, as I explained, an undivided area was planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called
427 tane. This is common procedure also when subsistence crops are planted. Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepe (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepe for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

479 In the neighbouring village of Sasembata, where a rubber cooper-
245 ative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepe men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

479 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 from a patrilineal norm are so frequent that it is unusual for any man to hold
425 precisely the same blocks as his father who was *enda mama* before him. Nor do
611 clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 The first question that needs to be resolved, in the case of the Orokaiva, is
423 whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is
425 expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 We have seen earlier in this discussion that the obligation to 'look after' a plot
423 of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility
[554] falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all
[768] these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His
[627] father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will not accept the decision of the *enda mama* has no option but to leave the village and forfeit his patrimony. 596

Economically, the *enda mama* is theoretically in full control of all products of the soil and of all resources owned by his family. He also has full control over the allocation of land to family members and others, with the proviso that his sons, if any, should get at least 'half' of the land when he dies. [423] [428]

In summary, the religious, political and economic attributes of the extended family enable us to describe it undoubtedly as a corporate group. It has to be recognised, however, that the parcels of land controlled by this corporation vary considerably from generation to generation. A corporation will shed parcels which are permanently vested in other lineages, and will obtain new parcels from uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin (1963) have all treated this land corporation as comprising a 'lineage', so that it may seem idiosyncratic that I am calling it an 'extended family'. My reason for changing the description is that I was unable to find any case of an extended family lacking an *enda mama*. There are, of course, lineages comprising more than one extended family, but in such cases one finds more than one *enda mama*. Crocombe and Hogbin, faced with this phenomenon, added the term 'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small sample contains no case of a 'sub-lineage' comprising more than one extended family. In these circumstances we may well delay discussion of the range of control of the *enda mama* until we examine patrilineal ideology in Chapter X. 596 613 [423] [425]

We notice, however, an apparent conflict between patrilineal ideology and practice. According to the ideology, an Orokaiva patrimony is passed on from an *enda mama* to his successor; there is no rule for splitting up the patrimony between the sons of a deceased *enda mama*. How does it come about, then, that every extended family has its own *enda mama*? The process is easy to describe. It is customary for an *enda mama* to allocate land to all married men of his extended family on a more or less permanent basis. He has the right to change these allocations when special circumstances arise but changes do not occur often. As the *enda mama* becomes older, and less able to make his own gardens, he tends to distribute more and more plots, either to his sons or to other persons of his choice. Though the patrimony remains undivided in theory, in practice it is being divided. In this subdivision, the rights of brothers are supposed to be equal regardless of seniority. 596 423 425 [428]

When the older brother dies, the position of *enda mama* passes to the younger brother. The sons of the elder brother then retain no rights of succession and will depend for their well-being on the new *enda mama*, their uncle, who often adopts them if they are young. If the younger brother dies, and there are no other brothers left, the younger brother's eldest son becomes *enda mama*. The custom in such cases seems to be that the portion of the original patrimony set aside for the elder brother should go to the sons of the elder brother; the portion set aside for the younger brother should go to the sons of the latter. Theoretically the eldest son of the younger brother would be *enda mama* over the entire original patrimony but in practice a gradual splitting up would be inevitable. Orokaiva do not easily accept the authority of their cousins or adoptive brothers. 596 428

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

Informants were all agreed that at any time either the *enda mama* or the junior member of a land-holding corporation may opt out of the relationship: such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

When such separations occur within a three-generation extended family, they are regarded by the community as (minor) misfortunes. On the other hand, they are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
621
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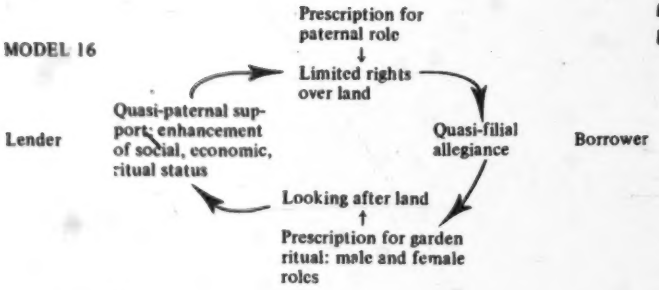
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study of Inonda (1963) and supplemented in a brief study by myself. A leading man from Tandai'undi clan (Seva village) gave most of the present Inonda domain to a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following generation Tandai'undi, according to the custom (of patrilateral cross-cousin marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures '*ne relèvent pas des structures élémentaires*' (*ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and
● [429] Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patriclan in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could [431] in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for [435] distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

245 e. Economic trees

[131] Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. [133] The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. [137] Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

423 It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes [245] acquire trees of their own in this way but unless a woman is the sole surviving member of the agnatic group in which are vested [428] the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated [685] that he would not expect his sister to ask for produce from his trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38).A Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed [423] to retain by the deceased's co-resident kin who inherited the land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 On special festive occasions a localized patrilineal group has 614 some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

A. [See Category 428, p. 38--Analyst]

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 [103] [128] All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinasusu or Korinaturu. For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 [428] All land constituting territory of the Jegase, Timumu or oth[illegible] in the neighbourhood is divided into parcels which are the ho[illegible]gs either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[562] 428

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated.

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to [721] attack government parties,[3] peace was secure within 4 years. Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes [166] under the novel conditions brought about by the arrival of the Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

624 villages and individual members of these groups have come to
614 regard as their own, since 'usage tacitly becomes ownership'.[1]

Norton's use of enda mamo seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepe exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mamo or Norton attributes to the embo dombo.

[425] Among our recorded cases of land falling without direct lineal
[426] heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organization is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebehupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 50 years.

613 He retains prestige and influence in many matters of concern to
624 his own lineage. He can claim prominence among more close agnates
[554] than a leading man of any other lineage in our sample, even though
[614] the Bebehupa have now dispersed from Binduta to Garombi, Nahihita, Kakita, Awala and Sivepe. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Norton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 It is by virtue of such interpersonal ties, hardly less than by 602 shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, by these means, claims to inherit land are established in many [428] circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of different clans and of other villages hold a contiguous section [613] of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

[1] In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

A,[See Category 601, p. 52--Analyst]

425 f. Local organization and land transfers

(i) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

425 In such circumstances where the recipient and the original rightholder have lived in the same village or in neighbouring villages which are closely related and have worked together the land in question will be occupied by a person who has already established and maintained an accepted status in relation to the former landholder's group and who often has special relationships to particular kinsmen within it. At the time, accordingly, the [428] transfer is to the recipient as an individual[1] and not to a patrilineal group. After the passing of a generation however it will come to be regarded as part of the heritable territory of his agnates.

Moreover, there may be no immediate change in the use of the land involved and the extent of the rights being exercised may not be clarified for some time. In several cases we noted that a balance was eventually struck in dividing the land between claimants who were co-resident but distantly related patrikin of the deceased rightholder and those who were co-resident non-agnates.

Unfortunately, since our survey was short, we could gather little significant evidence of any disputes which may arise between parties with conflicting interest in such land. Our data include on the one hand instances where a transfer of rights still within memory has been confirmed over time and on the other the stated intentions of members of landholding groups as to the transmission of their rights.

Since the blocks involved are small and the fragmentation and interpenetration of the holdings of patrilineal groups is extensive, there is little concern for the maintenance of the continuity of the territory of these groups.[2]

These transfers which are prompted by individual needs and demographic changes lend flexibility over time in the distribution [428] of land which is a comparatively scarce resource. Population pressure has not resulted in greater conformity to the ideal system of patrilineal inheritance of available land.

171 (ii) Orokaiva and Chimbu land holding and residence compared.
121 We maintain that our account of the mountain Orokaiva shows not only the underlying contrast, in some respects, but also the significant characteristics in common with the Chimbu so that it

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[1] But in some cases a clear identification of the recipient may be arbitrary - e.g., to name him as either an affine or else a cognatic kinsman of the original holder is sometimes rather inaccurate, if the kin of these categories are father and son (see Appendix E, p.111). A

[2] See Brookfield and Brown 1963:133.

A,[See Category 428, p.111--Analyst]

436 a standard of value. However, to some extent money seems to have [555] taken over some of the functions of traditional valuables and in some situations one is exchanged for the other. In the past it [301] was recognized that skill and initiative in hunting and trading were necessary to acquire di hambo but today, with safer communi- [237] cations and better hunting equipment, they are more easily obtained. [321] People are willing to buy some of the more valuable items or some cheaper items of European manufacture which can be adapted to [439] serve as a novel decoration.

Although they constituted the greater part of the goods changing hands on traditional ceremonial occasions, di hambo are evidently [428] not now circulating rapidly. A little less than half of these valuables held by members of the sample had been inherited and nearly a quarter had been acquired by the owner by hunting or collecting.

A complete adjustment between the roles of money and of non-monetary valuables has not yet been made. They circulate in the same exchanges and both are considered essential; it may now be [583] accepted practice that each should be contributed by or distributed amongst different categories of kin on these occasions.[1] But the opinion was widely expressed that as people are increasingly demanding cash as a large part of bride price payments, the intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely interchangeable, we collected details of the prices paid for any items of di hambo which had been purchased by the sample,[2] and by using these in conjunction with the unitary scale of value on which informants could readily place all items, we assessed the possible cash equivalent of non-monetary valuables acquired by the 12 households from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

[1] See Crocombe and Hogbin 1963:52.

[2] These prices were very nearly the same as those recorded at Imonda (Crocombe and Hogbin 1963: Appendix B).

Appendix E

Cases of land transfers

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This section presents our information on the only recorded cases concerning land inheritance where the ideal norm of lineal transmission has not operated automatically and where we could obtain enough detail to indicate clearly the factors involved in the devolution of specific rights to a particular beneficiary from among a range of candidates.

I

One of the 2 Berekipa men who came from Hamburata and established Pusahambo village was given a parcel of Timumu land and was able to re-activate rights in some of the land which his father had held. Nine acres in all, this was the only land held by the Berekipa people when it was inherited by the present senior householder of the lineage. The son of the other immigrant who claimed no land in this area still depends on the senior man for gardening rights and on his own wife's brother of Arehu lineage.

II

His wife's classificatory brother (d7), just before his death about 1960, set aside 4 acres of land close to Sivepe to be inherited by their son (e2J); this Arehu man had no children and the rest of his land[1] was inherited by his mother's 'sister's' son (d9), another Jegase (Bebehupa) man with whom he had once lived at Korogombata and later at Awala where he had moved from Sivepe several years before his death. He had maintained close relations with the 'sister's' son (and clansman), the youngest Berekipa householder at Sivepe, and was buried by him. The transfer of land to him was sealed by a return gift of £5 and a pig; this was given, of his own accord, by the beneficiary's father to

[1] He had already given a small parcel of land to his wife's brother who was also his sister's husband and lived at Sivepe. This man's heir (e4S) has now planted coffee on it.

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the deceased's father (an old man soon to die himself) so that, he said, the transfer could not easily be contested later. Each of the 3 Berekipa householders has since cultivated a subsistence garden on the land.[1]

III

One brother of the Arehu man who accepted the return gift was the mother's father of the Berekipa man who received the land; another brother had held land consisting of parcels mostly adjacent to this and these were inherited by his daughter, an almost totally crippled woman living at Sivepe (d5). She has granted the Berekipa man rights to her own parcels; it is agreed that these rights differ significantly from those he acquired about the same time to the 4 acres nearby: he claims effective control of the use of the land on behalf of the woman and her illegitimate son until he is adult. He agrees that the son would inherit the land from her.

The woman and the boy live in the house of her mother's sister's son, the senior Berekipa householder. The younger man now uses and expects ultimately to inherit the land of this householder, his father's adoptive father. He would no doubt prejudice these rights if he were to lay permanent claim alike to both areas which the Arehu have passed to his control. However, he has planted a coffee plot on land he controls on behalf of the woman and neither expects that the income should be shared in return for such permanent use of the land.

IV

The only Arehu person at present exercising rights to Arehu land is the only adult male representative of the lineage in Sivepe (d4J), a widower with 1 daughter married into another village. About 1954 a younger brother moved to Agenahambo and on to the land of his wife's lineage, some of which he anticipated his young sons would eventually inherit. The elder of the 2 brothers claims that he now controls all the land they received from their father and that unless the brother and his sons return from Agenahambo they will forfeit their claim to Arehu land in favour of his sister's son, to whom he proposes to pass on his own rights. This man (e2J) is the Berekipa householder who has already used his links with other Arehu to acquire land rights; he has a current garden on the resident mother's brother's land. However, he is doubtful as to the outcome when the issue of the other land is forced. It is impossible to predict what will

[1] We do not know what obligations to the Arehu they incurred on former occasions for temporary use of their land.

[TEXT CONTINUED ON PAGE 114]

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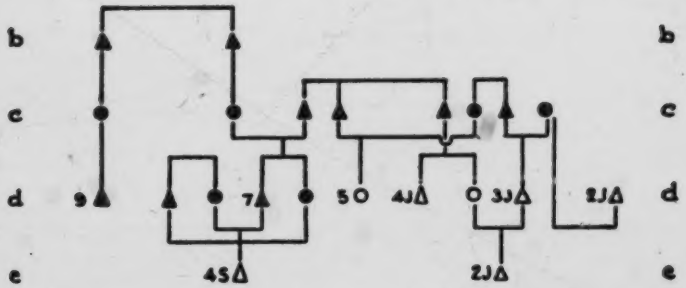
SELECTED GENEALOGY I



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425 happen if the absent Arehu man and his sons do not return to reinforce their rights by continued residence and cultivation of the land.

However, it is clear that whatever the result of the statement of his intentions, the resident Arehu man stands to place others in a position dependent on him. He has ample land but no sons or close male patrikin in the village; little opportunity to manoeuvre is afforded by the tenuous relationships he has with Jegase clansmen other than the Arehu and Berekipa. By playing one of these against the other he can create new obligations to himself among the Berekipa, his sister's husband's group, to whom he has granted planting rights for some time, or perhaps attract members of his lineage back to the village.

Postscript. Since our departure the Arehu man has succeeded in attaching a newly-established household to himself: the exchange transactions for his daughter's marriage (to a Soroputa man) have been completed. He claims that he accepted only £9 and 2 pigs from the husband's kin although more had been offered. His reason for rejecting the larger offer is that the married couple have made their home next-door to him at Sivepe; if they had built at Soroputa, he said, he would have accepted (E. Waddell: personal communication).

However, the point of interest here is that he has been asserting that his daughter's husband will inherit his land. We do not know whether the husband is expected to inherit the land the Arehu man now controls for his brother or only parcels he himself inherited; it does not seem likely that in either case his stated intention to pass some of the land to his sister's son could be discounted altogether, short of an improbable breach in relations between him and his sister's household.

V

The only surviving members of Sesewopa lineage are 2 sisters, 1 of whom lives in Sivepe married to a Seho man. She claims 4 parcels of land inherited from her father and exercises her exclusive rights to the produce of trees there but gardens on her husband's land. She jealously protects the rights of her sons to inherit this land and most members of other lineages concede that because they are living in the village they will acquire the land whereas their mother's sister's sons at Kiorota will have no rights. However, in the past the Sesewopa have been closely associated with the Bebehupa and the leader of this lineage, without openly opposing her claim, takes other opportunities to advance the view that, for the present, title to the land rests with her father's kin whom he insists he represents.

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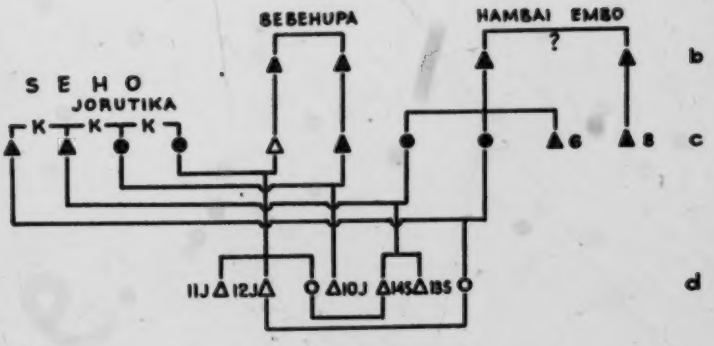
SELECTED GENEALOGY II



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VI

One Jegase lineage, Hambai'embo, has recently died out and its land has been transferred to members of other lineages and clans. The land of 1 man (c8) was divided when he died without sons or brothers. Three parcels were inherited by his daughter's son (e6S) and the rest were shared between 2 men of Bebehupa lineage (d9 and d12J), who lived in the same village as he.

VII

Several other parcels of land of Hambai'embo lineage were inherited by 2 Seho men (d13S and d14S) from their mother's brother with whom they had lived in Euru village. Neither this Jegase man nor his brother had sons and on his death rights to some of his land were transmitted to the sister's sons and some were assumed by his surviving brother. As this man had no family he lived in the household of his sister's daughter's husband (d12J, one of the Bebehupa men just mentioned) who inherited the land when he died. This heir and the Seho men have made conflicting claims to 1 parcel formerly held by the Hambai'embo; it is quite possible either that there never was a clear-cut division of the paternal land between the brothers of that lineage, although they seem to have lived and gardened in different areas, or that the dispute centres on questions about the shares inherited by the surviving brother and by the sister's sons of the first brother to die.

VIII

Three of the 4 Bebehupa households in Sivepe have current gardens on land of members of Jorotika lineage of Seho clan at Sivepe. The mother of the head of one of these Jegase households (d10J) was a member of a genealogical branch of Jorotika which has no resident members. The land of his mother's brother (who has been absent in Port Moresby for about 20 years) is at present controlled by the gardener's neighbour, another Jorotika man (e4S), who has confirmed that the area now used by the Jegase man may be passed to his son. His mother had been the only Jorotika person to use it continually in the past.

IX

The 2 other householders are brothers (d11J and d12J) whose mother belonged to a second Jorotika subgroup. One of them (the leading member of Bebehupa) has been making several successive gardens nearby on the land of his mother's brother who lived in Sivepe. His wife's classificatory brother (d13S) controls this portion of lineage land as a member of the same Jorotika subgroup; he is the most prominent and influential member of the Sivepe branch of Seho clan but he was not consulted on the question of

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the transfer of the other Jorotika land. He has dismissed the Jegase man's claim that he and his brother have rights similar to their lineage-mate's (d10J).

The 2 disputants are the same parties who made conflicting claims to the Hambai'embo land.

591 may be influenced by proximity to a new area of land it is intended [614] to bring into cultivation.[1] [166]

(iv) Rights to land. The Orokaiva social system is character- 423 ised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance [428] is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more 614 than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a refer- 423 ence group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

241 This markedly influences the pattern of both exploitation of 423 land and transmission of rights. In the low density areas a number [613] of descent groups often agree to exploit simultaneously an area

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[754] [578] [1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[562] [2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[311] [614] [3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[224] [4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral ●428 kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[311] [136] [417] [2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

Alienated land

432 The only alienated land in the Inonda area is a mission lease of five acres close to the village. It was purchased by the government for the sum of £5 and leased to the Anglican Mission for a school site.(1) The purchase money was paid to the then head of the Andiriha sub-clan but it is said that he received it in his capacity as leader of the lineage which had occupied this land (or as successor to the head of the extinct Paru lineage). The money was not shared. The main Popondetta-Oro Bay Road runs through Inonda, but the actual purchase of the land by the Crown has not yet been completed.

Transmission of land rights

425 Examples have been given of the transfer of land rights between clans (pages 14-16, 21-23) and of the succession to rights of a lineage which died out (page 26). Within the lineage 428 the ideal pattern of inheritance of land rights by individuals 613 is patrilineal. The sons often hold rights jointly, though in some instances the lands have been divided between sons. As the number of resident adult males in any lineage does not seem to have exceeded three either in the present or the remembered past, joint rightholding has not occasioned undue difficulty. Although it is customary for the rightholder who is senior by birth to act as spokesman for the rightholding group, he does not appear to hold any superior rights to his co-parceners. While the patrilineal pattern predominates it is modified by factors of residence, family size, adoption, availability of land, and matrilateral and affinal connections.

The people traced the inheritance of proprietary rights to twenty-two out of thirty-seven blocks of land by direct patrilineal descent from five initial rightholders. It is appreciated that deviant relationships (adoptions, illegitimacies, refugees, etc.) are often forgotten, particularly in earlier generations, and memory assimilates the realities to the ideal pattern. It is therefore possible that inheritance was not so direct in fact.

(1) It is not at present in use as the school was shifted several years ago to Hohota.

In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

The inheritance of property

342 Traditional housing has a life of only about four years. It is simply constructed and does not call for any great expenditure of either effort or materials. If the household head 768 dies, his wife and family may continue to occupy the house, though if there are adult sons they will usually dismantle their late father's house and rebuild nearby. If the wife remarries her new husband must provide her with housing.

428 Replies to questions about the inheritance of tools and equipment were unanimous. Those who had one son (real or adopted) said these things would descend to him alone. Those with more than one son said they would go to the first-born who would divide them among all the sons, though he should make some provision for his sisters if they were living at home. Those with no children or with daughters only said that their chattels would go to the sons of their eldest brother. The one exception was a man with four daughters and no sons. Neither did his brothers have sons, although his late sister has surviving sons in a village about ten miles away. He says that if he does not have a son before he dies, he will leave his property to his eldest daughter to distribute among herself and her sisters.

The proposed inheritance of cash savings and traditional valuables followed the same pattern as that of tools and equipment, though informants state that the first-born son need not necessarily actually divide the estate, but will normally merely take care of it as trustee for his siblings. He is then obliged to meet their obligations in respect of bride-price and other exchanges from the common pool. This practice has in fact been followed in all instances checked with the villagers, though they do say that it is not contrary to custom to share the estate among the beneficiaries.

While it is said that a man's dogs are usually inherited by his eldest son, pigs and fowls appear generally to be consumed during the feasting associated with the death. One exception noted during our stay was a large pig which had been "earmarked" as part of a bride-price exchange. When the owner died this pig was in fact reserved for the bride-price, though his other pigs were killed for the funeral feast.

428 The inheritance of economic trees is a little more complex. All of them take a number of years to mature (about fourteen in the case of sago) and several informants mentioned that "trees are for the children". It is quite common to plant trees and name them for specific children or grandchildren. Although most trees were said to have been planted by the father or grandfather of the present owner, there were several instances of inheritance from a brother or fathers' brother. It is quite common for an individual to inherit a few trees from matrilateral kin (almost invariably one's mother's father or brother). This practice is not universal and several men claimed no trees from matrikin. Informants indicated that the practice of giving trees to non-resident kin was less common in past generations, but has become more widespread with the increased mobility which has resulted from the post-war improvement of communications. The evidence collected supports this view, for although few of the older men had received trees from matrilateral kin, all those with married daughters had allotted a tree or trees to their grandchildren.

[59] As earlier noted, adoption (of various degrees) is widespread. Many adoptees who acquired no long-term land rights or other property from adoptive parents did receive one or more trees. One man in particular claims trees from three successive adoptive fathers.

657 "(a) ... keep the land clear of all rubbish
428
242

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer....."

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

657 The question of inheritance of rights to land regis-
428 tered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on
(614) sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

657 The aim of the registration scheme is to promote the
428 planting of cash crops on individual plots with some security of

472 marketing or the more intricate techniques of production. It does
554 suggest, however, that they have a sufficiently clear conception
153 of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 Most Orokaiva men established their cash crops on customary
423 land to which they have acquired rights by inheritance from their
[428] fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to.
[472] Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 A had cleared bush land and planted coffee at Garara where his
423 close kin had been permitted to resettle in the late 1920s. Though
472 the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for re-
[656] gistration of his land under the Land (Tenure Conversion) Ordinance 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of
[656] his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his
[432] cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

241 Later again, in line with an agricultural officer's recommendation,
422 he encouraged each son to plant individually. He proposes that his
592 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

422 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with its clear-cut subordination, has no traditional precedent and is [571] incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

657 423 man since tenure conversion was introduced. It suggests that in situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 423 428 [178] In law blockholders may depart from the traditional pattern of inheritance when disposing of their land. As far as could be ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 423 182 512 The time spent in Ombi was too short to enable any conclusions to be drawn about the effects of conversion on work organisation, but a few general points may be made. There was no set routine in the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 423 182 Husbands and wives worked together on food and cash crops, but I am unable to estimate whether husbands work more on cash crops and wives more on food crops as has been observed at times elsewhere.

[462] [464] [465] Five men were employed on maintenance work on the Popondetta-Kokoda road near Ombi for the full period of our stay, receiving $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

'communal ownership', which is sometimes applied to indigenous land tenure, is misleading and must be qualified. New Guinea land tenure may best be understood as a pattern of rights of usage. For example, a man who is the first to venture into a patch of rain forest and mark distinctive trees thereby acquires the right to hunt in that forest area; if he clears the forest he acquires the right to cultivate that land. These rights are inherited by his descendents. Thus individual adults control the rights to hunt, forage or cultivate on all land, and, incidentally, to fish in the streams which traverse their land. But each individual is also a member of a closely cohesive parish[1] group, to which he owes absolute loyalty. The parish group, through its sub-groups, clans, lineages, and individuals, controls a certain area of land. It was inconceivable in the traditional days of inter-parish warfare, that any land should be given or sold to the neighbouring enemies. Under traditional custom, no individual could sell freehold title to land; at most he could permit the temporary use of land by a stranger on the full understanding that he as a lender retained the permanent rights.

New Guineans are just as conscious of their individual rights to the use of land as we are, and many disputes occur because of real or imagined infringements of a person's rights. Land boundaries in New Guinea are rarely marked by fences. More commonly they are indicated by distinctive trees, rocks, or very often by bright-leaved shrubs such as croton or cordyline. Land holders have what is, to us, an almost uncanny knowledge of the location of their boundaries. A villager can lead you unerringly through thick secondary growth to his boundary mark and can point out, for instance, the almost imperceptible rise in the level of the land marking the line of a pig-fence, now completely rotted away, which bounded his swidden several years earlier.

[1] The term 'parish' may appear unusual in this context. It is used in the sense in which it has been adapted by Dr. H. I. Hogbin (1953) that is, the largest group of people forming a political unit. Hogbin denies the existence of tribes in New Guinea (with the possible exception of some of the large highland groups). He applies the term parish to numerically-small political groups.

[P 2-B]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with them. These affinal kinsmen thus acquired [428] cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[R.N-A]

621 main road, or even facing each other on opposite sides of it. Although this is clearly
361 the wish of the majority of the people, it does not suit all of them. There is some
731 talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

423 The inheritance of land is mainly patrilineal; but a man may work his wife's
613 land, and even, with the assent of her relatives, inherit a share in his mother's land. This means that individual members of a clan, instead of inheriting land jointly
● [428] from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of
[554] the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
361 once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions [794] for formal cooperation between villages belonging to the same ward. It was characteristic of both the church and the government council [797] organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries [192] was a novel one (see Map IX).A It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoga, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

628 These generalizations will be documented below; my task at
423 present is to consider contacts between Sivepe and closely allied
578 villages arising out of the eruption and relocation. Here inter-village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and [685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

423 Crocombe and Hogbin provide an excellent example of the
613 ambiguity of Orokaiva land rights. After wars with the Sangara, both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo. [621] Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda [428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepe. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepe and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepe villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepe people in Awala. It seems that the Sivepe people did stay in Awala for three months, after which the Jegase and Timunu clan groups received permission to return to their land in Sivepe. The third Sivepe clan group, Seho, stayed on in Awala, but planted gardens in the Sivepe area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepe. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. How this danger did not come from the other Sivepe clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepe people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Belshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

621 another source of annoyance. Some village groups requested permission
657 to move from Koipa and this was granted. A report on the file refers
731 to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bagisaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict than it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

657 This second phase of resettlement became possible because the
731 first phase was not accompanied by any renunciation of land rights,
423 or foreclosure of the possibility of return. At no time did the resettled groups give to anyone else a permission to occupy vacated
245 lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dopari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dopari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise
● [928] be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepe, most men have some land of which they are indisputably the owners, but at the same time most of them also have useholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own useholds lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepe showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

731 1966–1967, however, this fear was not mentioned to me by informants,
423 whereas I often heard of their worries about the danger that relatives from
425 other villages might take their land, goods, and chattels.

18. On the average, an Orokaiva derives approximately half his land from patri-
178 lineal inheritance. In accordance with British terminology, I have called this
423 "patrimony land." The other half comes from a variety of sources, mostly
428 from uterine kin.

[pp. 342–400 not processed]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER III
THE IDEOLOGY OF INTERTRIBAL EXCHANGE

1. *Experiences with the Exchange System*

Many authors have been fascinated by Melanesian ideas of reciprocity and exchange. Malinowski was the first to show in detail that these ideas are a central theme in Melanesian cultures; his lead was followed by Bateson, Belshaw, Burridge, van der Leeden, Pouwer, Reay, Sahlins, Salisbury, Strathern, Wagner, Young and many others. The literature on Orokaiva exchange, however, is less comprehensive than for some other parts of Melanesia. Williams, the principal ethnographer, has written a great deal on reciprocity and marriage exchange among Papuan groups, but this was mostly in his later works (1934, 1936, etc.), which do not deal with the Orokaiva. Some phenomena, as he records in his later ethnographies, might in some instances just as well have been found among the Orokaiva, and here it will be my role to fill in the record. Very recently, Waddell and Krinks (1968) have collected detailed statistical data on Orokaiva exchange. Valuable as this material is, it is concerned with economic geography rather than social organization and ideology. 121

All ethnographers who have worked among the Orokaiva seem to be well aware of the importance of the exchange system. Whenever I met one he soon came up with the key question: 'How did you get on with *hoija*?', *hoija* being an Orokaiva word meaning 'exchange between non-kin'. Fieldwork in any area probably has its tensions; among the Orokaiva the initial distrust of, perhaps the hostility towards, the fieldworker finds its expression in the rather aggressive offering of (sometimes unwanted) gifts and services, followed immediately by peremptory demands or ceaseless wheedling for return prestations. Every fieldworker thinks of some 'solution' to this problem: accepting everything (because according to Mauss the acceptance of gifts is obligatory), accepting just a little from everyone, accepting prestations from only a carefully defined and limited group, or maybe accepting nothing, though I cannot imagine this. What all these anthropologists are talking about, though from a purely practical rather than a theoretical viewpoint, is how they should behave as exchange partners, given their own peculiar status. It should be a comfort to them that Firth has recently (1967) challenged Mauss' proposition that the acceptance of gifts among primitives is obligatory. They will now probably have fewer uneaten potatoes and German taro lying on their verandahs! 431 123

In all the villages I visited events followed the same kind of sequence. I always received an effusive welcome and many gifts for which no return was asked. This

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 phase would last about two days. Villages where I made very brief visits never
123 passed beyond that stage, thus remaining in my memory as exceptionally endearing in their generosity. Before I understood the system, I harboured romantic notions of going to live in these villages. In the second phase there would be frantic *hoija*. Everyone brought gifts, asked for tobacco, salt, kerosene, and rides in the car. People appeared to be most hurt when I would not drive into Popondetta every day, and take the whole village with me. Whenever I was offered any gifts or service during this period there would be an immediate demand for some desired benefit.

436 After some weeks, this rather aggressive barrage diminished. I found myself
123 with a number of regular exchange partners who brought me what it was presumed I needed and who asked me for more or less standard return benefits.
431 Two sorts of partnership developed: one type of partner expected a return gift immediately upon bringing me his own; the second type made gifts for which he asked nothing – they were represented as gestures of pure affection. Yet in the future an occasion would arise when I would be asked for, or would spontaneously offer, something in return. But this second type of partnership was far more similar to the kind of gift exchange the village people had among their fellow villagers or close associates. As more and more people shifted from the first to the second type of partnership, I could see something like a genuine exchange network building up. People trusted me enough to allow me to be in their debt for a while. I was thus approaching the stage when I would be regarded as a desirable exhange partner, or, to put it in Orokaiva terms, as a man of some moral virtue. It seemed to me that it was on my behaviour as an exchange partner that my status would ultimately depend.

431 Most of the significant events in which the village was involved were also concerned with exchange. While marriages, deaths, feasts and initiations were all occasions for ritual and magic, the gifts always loomed largest in everyone's interests. It would usually take at least a year, but often far longer, to accumulate the gifts needed for such occasions. During this period members of the family, local clan branch or village (whichever was the donating group) would be constantly on the lookout for money or gift objects that could be stored up. People would go looking for jobs. They would keep unused some
[628] clothing they had been given by a relative. Whenever a visit outside the village
[574] was contemplated, an essential part of the preparations was the getting together of the gifts that would have to be taken. Or when a visitor arrived, there was stealthy activity in the background to prepare the gifts without which he would not be allowed to leave. The size of the gifts would always be carefully planned, in accordance with the importance of the visit, the extent to which it was thought politic to do homage, and the availability of supplies. But the making of the gift would always be done in so casual a manner that one might easily believe it was totally spontaneous.

This manner must be affectionate and humble. But the wise man, in making a gift, puts his partner in his debt as much as possible without suffering undue expense, while at the same time enhancing his own status. At a later time, he will use his status as creditor to the best advantage. His concern is to foster a social relationship while at the same time seeking the acquisition of some scarce resource. Social and economic ends are pursued simultaneously. Thus Melanesian

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OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems.

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive.

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility.

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law.

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

581 account, the meeting ruled that the cause of the marriage breakdown was the
586 husband's refusal to allow her to enter his garden. The attempted seduction, the
627 adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

578 Another such case was that of a man who took sides in a quarrel between his
837 brother and another man who had been trying to rape, i.e. seduce by force, that
571 brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him.

[583] And why would nobody help him? Well, brideprice had been paid for his first
[581] wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

829 In both instances a basic exchange cycle had been broken and that was
431 thought to constitute the essence of the relationship. In the first case this was the
436 exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *tivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

177 Many significant changes have occurred in Orokaiva society since European
241 contact. The introduction of cash cropping has made the Orokaiva, to some
437 extent, into a peasantry, depending to a limited degree on monetised marketing.
167 Furthermore, there has been a large amount of labour migration, mostly by male
433 workers whose families stay behind in villages. Even in the villages, technological
657 innovations have been influential in raising productivity and improving standards
of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by
797 Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

829 These changes have profound implications for Orokaiva political philosophy.
177 As we have seen, the Orokaiva recognised the importance of Hobbes' question:
657 how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

436 The effect of pressure on the exchange system is evident in many spheres. In
439 the economic sphere, the Orokaiva still carry on most of their non-monetary
431 transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
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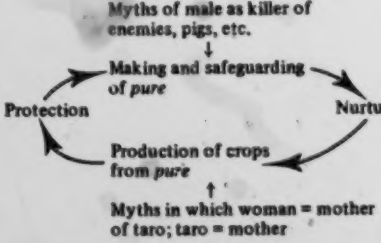
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kowari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

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Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage. 423 425 583 582

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship. 423 425 [613] [166] [571]

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence: 121

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status. 423 583 425 [558]

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him. 423 431 736

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same
583 applies to most instances I know of uxorilocal marriage. Here it was usually the wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi.
166 Seeking an increase in population, Sivepe leaders frequently encouraged dissident minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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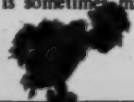

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
[169] Such gifts, apart from their economic significance, buttress social relationships both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
593 made to a sister or daughter, the husband or son or the recipient must subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

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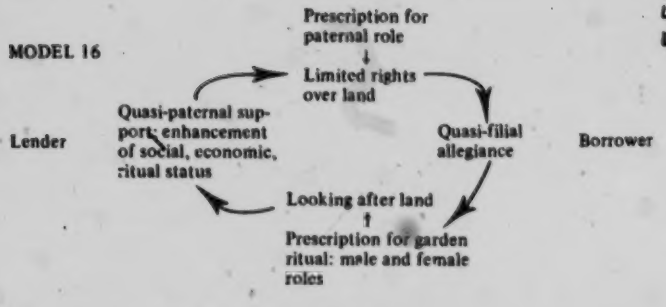
MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, [428] however, the right to patrimony land is never extinguished. At the same time, a [431] land gift to a sister or daughter is often made on the basis that when the land passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study 614 of Inonda (1963) and supplemented in a brief study by myself. A leading man 423 from Tandai'undi clan (Seva village) gave most of the present Inonda domain to 425 a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following [583] generation Tandai'undi, according to the custom (of patrilateral cross-cousin [582] marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

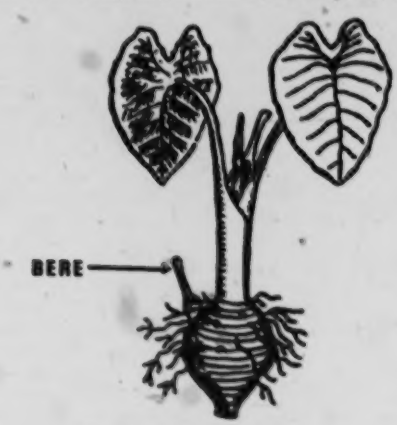


Fig. 7. *Colocasia esculenta* (taro).

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Mountain Orokaiva

much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

The present chapter elaborates these ideas, as applied to taro gifts among the Orokaiva. With the aid of some recorded myths, I shall try to show just how taro is conceptualised, in what precise sense it is symbolic of 'hearth and home', and specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish between two specific ritual statements that can be made with the aid of taro and show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

It is obvious that taro exchanges cannot make any essential change in the relationship of members of the same corporate group. By definition, this relationship is already determined by the rules of incorporation. Thus, two brothers do not become more intimate by exchanging taro. On the other hand, if the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised.
[773] In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

261 In addition to father, mother and twins, the myth contains a fifth character,
773 the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

824 If female nature, in its pure state, is found in the taro garden and male nature,
773 in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is
539 imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

824 The analysis of this myth has enabled us to understand more precisely the
431 sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'.
562 The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

824 Gifts of taro may mediate either the establishment or perpetuation of a social
431 relationship. But the ritual context of the gifts differs considerably. By far the
621 most frequent type are gifts which maintain relationships; these are made by every Sivepe household every day. In the twenty-eight days for which I took

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

records of taro gifts made in Sivepe village, the number of gifts made and received averaged 2.5 daily, ranging from a minimum of 1.3 averaged by the household least involved in the exchange system, to a maximum of 4.1 averaged by the household that made and received the most frequent gifts during the period. Allowing for variations in size, age and personality characteristics in the various households, these figures present a fairly homogeneous picture of customary exchanges.

Most of the gifts were made within the village, though a small proportion went to relatives and good friends who visited the village or who were visited by members of the Sivepe community. The usual practice was for the woman to bring home with her from the garden not only the taro her household was to eat that night and the next morning, but also taro to be used for giving away. When the recipient was of the same village, the taro would be cooked and presented ready to eat. The presentation was hardly ever made by the husband and most frequently by the children who were sent over with the cooked food and gave it to the named recipient without any ceremony. When there was any ceremony about the gift at all, the housewife was the proper person to make the presentation.

If I inquired who was the donor of the food I was often given the name of the woman, but sometimes the name of her husband, especially if the recipient was one of the husband's close kinsmen. There was always the notion that the gift served to maintain a specific relationship which would be involving either the husband or the wife. Strictly speaking, by far the greater proportion of the gifts were thus made to consanguines rather than affines. But it is better to regard the household as an integrated unit in its relations with other households, as the spouses undoubtedly mostly discuss together to whom food should be given. Essentially, taro gifts mediate relationships between households rather than individuals.

The size of the gifts was constant and seemed to be approximately what one person would eat for a meal. If a household made a gift of several meals to another household, this would be described to me as several gifts, with specification of the names of individual recipients. Here again, there was a contrast between the strict form of the gift and its overall significance. Strictly it was food given by one person in household A to one person in household B. When the family sat down to eat, the person who received the gift taro would share it out to others in the household. Therefore one may say that the gift was, in its general effect, from one household to another, but in strict form, it was emphasised that the social relationship between households A and B was mediated by one person in each household whose relationship was especially close. Thus, I might be told that 'X' sent taro to his brother 'Y'. In fact, X's wife would give the taro to one of her children who would take it probably to Y's wife. Y's wife would give it to Y, saying it came from X. Y would then give everyone a piece of it. A single gift would thus mediate quite a number of bonds.

As the gifts were very frequent, it seems a hopeless enterprise to specify on what occasions they were made; at first I thought taro gifts were made without any reason. Nonetheless, it is useful to discuss briefly a series of instances when taro gifts are considered appropriate. Let us first list a few of the more formal occasions when the housewife herself would make the presentation:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[846] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gegu*. It will be noticed that the position of the taro on the *gegu* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

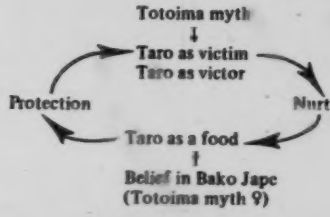
Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual tradtional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5) but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

824 773

4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba tkari* 'to give-taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/1

SIVEPE: TARO TRANSACTIONS BY HOUSEHOLD

Household Code No.	*Total Transactions*	*Sent*	*Received*	*No. of Partners*	*Degree of Imbalance**
1	58	40	18	9	4
2	37	1	36	6	6
3	41	26	15	9	3
4	57	35	22	9	3
5	101	54	47	14	1
6	70	45	25	4	3
7	87	24	63	12	5
8	56	33	23	3	2
9	71	40	31	6	2
10	58	21	35	5	3
11	68	36	32	10	1
12	117	59	58	8	1
13	85	44	41	7	1
14	101	52	49	7	1
15	60	34	26	11	2
16	60	37	23	13	3
17	79	50	29	14	3
18	62	9	53	10	6
18a	48	37	11	10	6
19	81	54	27	9	4
20	84	46	38	12	1
21	82	41	41	8	0

* Code: 0 = larger donor gives exactly 50% of gifts;
1 = larger donor gives 50–55%; 2 = larger donor gives 55–60%;
3 = larger donor gives 60–65%; 4 = larger donor gives 65–70%;
5 = larger donor gives 70–75%; 6 = larger donor gives over 75%.

mediating element in the perpetuation of social relations. Within a village, social relations of some sort exist between almost all the members. In my enquiries in Sivepe I came across only one instance of two men, both resident in Sivepe, who denied having or ever having had social relations of any sort with each other. There may have been one or two more instances I did not detect, but they would be very rare. Social relations between households in a village may range from very distant (when no taro gifts are exchanged) to very intimate (when taro gifts may be made four or more times per week). Many households have social relations which are close but not intimate, symbolised by taro gifts made a few times per month. The frequency of taro gifts is of course not the only way of symbolising intimacy, though it is the sign I found the easiest to quantify. It was my impression that those households which maintained the most frequent informal association with one another were also those who made each other the most frequent taro gifts. These were the households who were deeply dependent

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OJ23 Orokaiva OJ23
Mountain Orokaiva

924 431 621 571 on one another in sentiment, in economic tasks, in political support. They would tend to side with one another in village disputes. Thus, taro gifts were a ritual statement in which one household expressed its desire for close association with another.

Now, on this level of association, mutuality and reciprocity are obviously essential if the association is to be established on an equal footing. The return gift should therefore not be considered principally as an obligation (arising from a 'norm of reciprocity') but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of gifts is closely connected with the question of how intimate either side wishes the association to be. An increase of the frequency of gifts means a desire for a more intimate association. The recipient may wish to keep the association within certain limits. The Garombi migrants who gave more than they received seemed to be constantly trying to build up new alliances and were welcomed more warmly by some of the old residents than by others.

Failure to make a return gift of course does not always 'mean' that one is not interested in maintaining social relations of the closeness envisaged by the other party. There are many circumstances when people are not immediately in a position to make return gifts. In such cases I would not say that the recipient remains entirely without obligation, but rather that the obligation is delayed indefinitely. Thus a man may say he is giving food to his father or other senior relative because of some benefits received in the past. (He was himself fed by the senior person in his youth; he was helped with his bride-price, etc.) Or else a man will say that when his hosts visit his own village, he will then reciprocate. In fact guests customarily press their hosts to make an early return visit and hosts sometimes feel some obligation to do so. It is a pleasurable obligation no doubt, but it is clear that the purpose of such a journey is not to get one's taro back but to maintain the association.

It follows from this discussion that the households to which the most frequent taro gifts are made are those with which the greatest intimacy is desired. If the recipients, though fully capable of making equally frequent return gifts, reciprocate too half-heartedly, the donor household will probably reduce its gifts to the level acceptable to its partner. If the recipients are not capable of making equally frequent returns, the frequent gifts will continue, and the taro ledger will remain unbalanced. Thus, irrespective of the degree of balance, we may regard high frequency of taro gifts as a generally reliable index of intimacy of association. I am leaving out of consideration here the question, raised by Sahlins (1965), of whether degree of balance is determined by kinship distance. Exchanges of taro have a social as well as an economic aspect. Where the social aspect is uppermost (i.e. where the exchanges are not primarily based on need), they tend to be close and balanced, as long as both partners are satisfied with the prevailing frequency of interaction. Where the economic aspect is uppermost (i.e. where one partner is for some reason unable to harvest his own taro), no *social* importance is attached to imbalance and Sahlins' generalisation would probably hold for the Orokaiva of Siiwepe.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *Clusters and Chains, Two Patterns of Intimacy*

How can taro gifts mediate close associations among larger groups than dyads of exchange partners? This involves a complex sociological problem that cannot be solved in the framework of the present study: why do men tend to give disproportionate attention to a very small number of their closest associates and much less attention to a larger group who are still close and trusted friends? A principle of allocation clearly operates here: intimate relationships demand more time and energy than can be devoted to the entire circle of close friends. But it is by no means clear what is the role of intimates as distinct from other valued friends. This hierarchy of association, whatever its explanation, is very evident among Orokaiva, not only in the way in which individuals spend their leisure time and compose their co-operative groups, but also in their allocation of taro gifts among their exchange partners.

In Sivepe the number of exchange partners maintained by a household varies from three to fourteen, with an average of 8.5. The first (i.e. most frequent) partner is involved in an average of 38 per cent of all taro transactions, the second partner in 24 per cent, the third in 12 per cent while the other partnerships account for only 26 per cent of all transactions. It is clear that the first and second partners are in a very privileged position in comparison with the others.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of interaction. My impressions, supported by the statistical data and some generalisations offered by informants, is that each household has a few preferential partners to whom it gives or from whom it receives taro at least twice a week, but often far more frequently. In this sense every household in my sample had at least two preferential partnerships. Ten households out of twenty-two had a third, five households a fourth and one (the Seho clan leader) had five preferential partnerships.

The data show that where households are linked by primary kinship, they mostly set up a 'preferential' taro partnership. Only 30 per cent of preferential partnerships, however, fall in this category. The rest can be accounted for only if land transactions, political considerations, and the total past history of personal relationships and transactions are taken into consideration.

For statistical reasons alone it would seem that preferential partnerships are worth some detailed investigation. They clearly add substantially to the number of intimates on whom an individual can count for support over and above those who can be depended on purely by virtue of membership of the same corporate group. In addition preferential partnerships are of crucial importance as a basis for close co-operation between sets of persons larger than the exchanging dyad.

In Fig. 8, all preferential partnerships in Sivepe are shown in sociographic form. A distinction has been made in the sociogram according to the extent to which social preference is mutual. Households A and B may be said to stand in a 'closest mutual relationship' (marked by a hard line), if B is a first or second partner to A and A is a first or second partner to B. If none, or only one of these conditions are satisfied, the relationship is shown by a wavy line.

Though a full analysis of taro gift patterns has to await separate publication,

[TEXT CONTINUED ON PAGE 131]

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571
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/2

SIVEPE: TARO TRANSACTIONS BETWEEN PREFERENTIAL PARTNERS

Household Code No.	*First Partner*	*Sent*	*Received*	*Second Partner*	*Sent*	*Received*	*Third Partner*	*Sent*	*Received*
1	H17	7	11	H2	16	0	H5	4	3
2	H1	0	17	H3	0	11	H17	1	4
3	H2	12	0	H17	4	4	H4	2	5
4	H5	15	12	H3	5	2	H7	6	0
5	H4	12	14	H6	11	7	H21	11	6
6	H7	33	12	H5	7	11	H4	2	2
7	H6	14	30	H19	5	11	H4	0	6
8	H9	13	16	H10	18	7	H7	2	0
9	H8	15	15	H10	16	7	H13	4	2
10	H8	7	17	H9	7	12	H11	3	4
11	H12	10	11	H20	18	4	H18	6	2
12	H13	17	19	H14	15	19	H11	12	10
13	H14	21	17	H12	19	16	H9	2	3
14	H13	16	21	H12	17	16	H15	6	8
15	H14	8	6	H16	6	7	H12	3	5
16	H17	8	6	H15	7	6	H7	7	0
17	H1	11	5	H16	6	8	H18	7	3
18	H18a	0	15	H17	3	7	H11	3	6
18a	H18	15	0	H19	8	4	H17	3	3
19	H7	24	5	H18a	4	8	H12	5	6
20	H21	28	19	H11	4	8	H5	4	4
21	H20	22	20	H5	6	11	H11	4	1

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Mountain Orokaiva

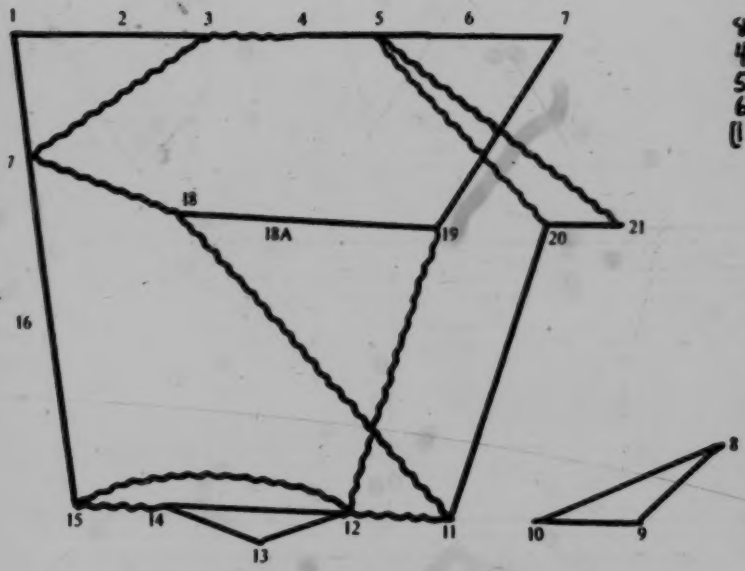

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Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

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Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . , Hn) is defined as a set in which H2 has a

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OJ23 Orokaiva OJ23
Mountain Orokaiva

824 'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on.
431 Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with
571 H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great
621 majority of households of all clans and may thus be considered a unifying
128 principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges
[361 with one's neighbours. Certainly I never found a trace of such a rule. On the
209] other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

824 The circuit corresponds remarkably well to the Orokaiva system of clan
431 formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally
571 unrelated groups, three of which migrated to Sivepe since the beginning of the
621 century and which gradually grew into a single clan by a process of fusion (See
128 Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that
614 circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

824 It is precisely the lack of intimacy between small social chains that produced
431 the Sivepe circuits. As we have seen, these circuits are mathematical models built
571 after the reality of residence and taro exchange patterns. It is characteristic of a
621 circuit that no two households share the same 'closest mutual relationships'.
128 Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean "big man" leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *aura*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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MODEL 19

How can an exchange model of this sort establish enduring solidarity in a village containing as many as twenty-two households? In a small cluster of households solidarity can be established by the device of every member exchanging with the required frequency with every other member.

But when there are twenty-two households, the same pattern could be maintained only if twenty-one 'closest mutual relationships' were kept up by each household. This is manifestly impossible as the relationships require, not only regular gifts of taro, but also close and frequent association.

Several devices for increasing the range of a solidarity network have been explored in Lévi-Strauss' theoretical study of marriage exchange (1949). They may be classified as various forms of direct and generalised exchange. Theoretically, any of these devices might have been used to cope with the problems of taro exchange. There might have been a rule delaying the return of gifts, or even forbidding the acceptance of taro gifts from those to whom one had given taro. But these devices would have made an exchange network of twenty-two households theoretically feasible. None of them is, in fact, found among the Orokaiva. Instead we found the pattern I called a chain.

The problem which a circuit-like structure attempts to solve is that of establishing or maintaining amity and solidarity between two parties (A and B) who are not linked by bonds of any special intimacy. The procedure followed is that A and B use one or more persons to mediate between them. In the simplest case, where A and B are separated by only one link in the chain, they share the same intimate associate who can act as mediator. If they do not share an intimate, i.e. if they are separated by two or more links in the chain, an accommodation may be reached through a series of mediators who act vicariously on behalf of the principal parties. The arrangement, in its simplest form, is shown in Model 20 which may, of course, be extended indefinitely by inserting intermediate exchange cycles. In practice, this model would be utilised rarely between neighbours living only two houses away from each other. It is, however, a pervasive pattern of Orokaiva social life. It is regularly employed in the making of requests by someone who is not an intimate. A refusal always offends. But if a request is made through a mediator both sides may pretend it has never been made. At least, no hard words are spoken. There is a customary blank, expressionless style which is used for the transmitting of requests – symbolic gestures of neutrality. The mediator avoids all risks of endangering his own alliances while still making what effort he can to satisfy the party seeking the benefit. If the mediator's intervention is successful, this undoubtedly increases his standing and creates an obligation on the part of the beneficiary.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

628 In dealings between different villages, the use of a chain of mediators is extremely common. A will approach a fellow-villager B, who has connections in the other village; B will go to the other village and see C, his closest contact. C will then most likely go to D, one of the intimates of the person E with whom A desires to deal, and D will look for E. During the ensuing conversation, A and E will say very little, and it is the intermediaries who do most of the talking.

824 The intimate associate, often a neighbour, is thus extremely valuable, as he
431 opens up a vista of alliances to which his partner has no easy access. A man's
621 effective social network is therefore much wider than any network he could
571 personally maintain by direct exchanges. Most of his effective alliances are vicarious and can be reached only through intermediaries.

The social network maintained by a sizeable circuit is therefore very considerable. It is greater than any solidarity group the Orokaiva could build up by maintaining their patrilineage bonds or by exclusively exploiting any other principle of kin group solidarity. The significance of gifts of cooked taro is that they maintain the intimate bonds needed to retain vicarious access to this network. Cooked taro mediates not only the exchange of intimate attachment, but also the exchange access to *alter's* private network of alliances.

If a village formed a perfect cluster, this kind of exchange could not happen, as all members share exclusively each other's most intimate alliances. Where a circuit structure prevails, a man's partner always has an intimate relationship he does not share, so that the man is dependent on his partner for access to that partner's distinctive exchange network. A society whose solidarity depends heavily on direct immediate exchange may have a rather wide network of alliances as long as it has strong institutional patterns of mediation. The importance of these patterns in Orokaiva society cannot, of course, be gauged by reference to taro exchanges alone, but it is now possible to inquire to what extent the model I have constructed on the basis of taro exchange applies in other areas of Orokaiva culture.

Clearly this model, if transposed to the level of marriage exchange, would include elements of both direct and generalised exchange. The cluster resembles direct exchange: the maintenance of relationships within the system depends entirely on benefits received from all households included in the system. On the other hand the chain has the circular form characteristic of generalised exchange. It includes households who receive no direct benefits from one another except the vicarious one of joint membership in the system. In some respects the chain, of course, differs fundamentally from a system of generalised exchange: the taro travels in both directions around the circle. But I have emphasised that taro is not strictly an object of exchange but of mediation. If there is a need to establish intimate social exchange between remote members of a chain, this will not be, as a general rule, for the exchange of identical benefits. Thus the benefits travelling in each direction along the chain may differ and may not belong to the same sphere of exchange.

While relationships within a cluster are very intimate, those within a large chain may require delicate diplomacy. Yet a chain does not, in my experience, contain members who are actively hostile to one another. The exchange of cooked taro has to to with the maintenance of friendly relations, and collapses if serious conflict arises. The management of serious conflict requires different

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Mountain Orokaiva

objects of mediation, such as pig meat, which will be discussed in the next chapter.

REFERENCES

1 The propagation of the taro plant (*colocasia esculenta*) is illustrated in Fig. 7.

2 Waddell's survey excluded gifts to household members. This may explain informants' initial hesitance in mentioning them.

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Mountain Orokaiva

CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

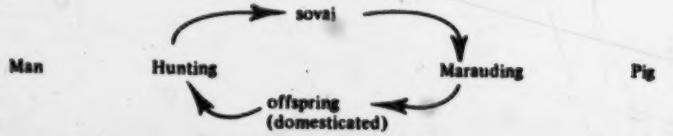
S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
calls of its mother. It learns to forage in disused gardens but keeps away from
[789] growing taro. The piglet will not stray too far into the bush but comes home
[775] every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *iho* (strength) he needs for hunting pig. (This *iho* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of
prestations between the sexes, for it is a task women customarily perform for
[462] close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts
231 at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[191] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*iwo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, in fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

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QJ23 Orokaiva QJ23
Mountain Orokaiva

224 to a man who had lent an ornament for a recent ceremony. I was told that meat
825 is sometimes kept for 'months' so it can be offered at a feast or used to discharge
571 an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] While the economic motivation in the final disposal of the joints is plain
[431] enough, it is less easy to understand the elaborate exchanges immediately
[437] following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give
[262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which
[778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 These beliefs do not, in themselves, explain why it is considered better for
262 meat to be given rather than consumed by the killer. They do, however, carry us
224 back to the myth – already considered in detail – by which Orokaiva explain
431 the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son
773 slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 Pig meat provided at the more important ceremonies of the Orokaiva comes far
825 more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

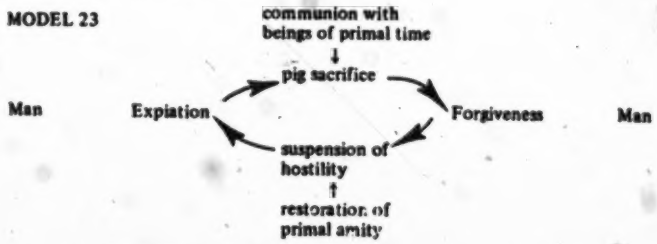
629 728 574

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

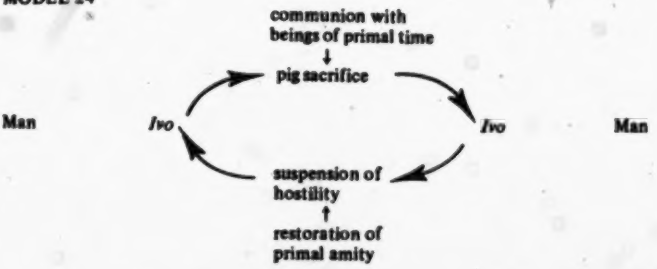
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24



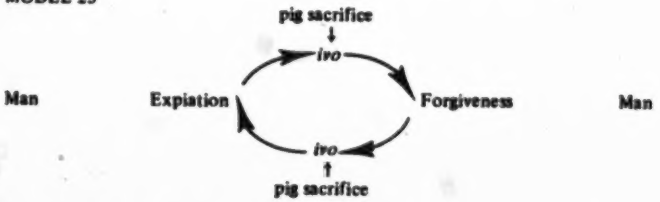
In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly
[554] towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be shared, after the meeting, between the men and their wives. The men are to ask
276 their wives whether the taro are ready. This is a ritual question, as the men go to
562 the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

571 conflict, necessarily precede recourse to sorcery. It is believed, however, that
602 such relatives will not usually carry their resentment too far. As soon as the
518 afflicted person makes his apologies and shows himself ready to make a pig
754 sacrifice, such sorcery will normally case. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives
● [431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

671 Prestations between affines have a similar explanation, though the pattern of
579 hostile action and retaliation between affines is somewhat different. The first
602 hostile action in the series tends to be the abduction of a woman for purposes of
583 marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

A (See Cat. 571, p. 148--Analyst)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that such identification could be achieved only if there is a starting mechanism, in the form of a mythical charter, which defines the object as having the magical qualities that will enable it to act as mediator.

It must be admitted, however, that this mythical charter is logically prior to the social relation *only in the view of the indigenous culture* and that its logical status is no higher than *hau, mana, tno* or any other mystical concept of the type Lévi-Strauss rejects as 'verbose phenomenology'. How can we meet this criticism? If we are to follow Lévi-Strauss' prescription, we have to turn to the largely unconscious categories of Orokaiva 'symbolic thought', i.e. the basic binary oppositions discovered in the culture by structural analysis. We have already, from the preceding chapters, some idea what the basic Orokaiva oppositions would be. We have noticed, especially, the importance of the male and female principle: most other binary oppositions we have found are related to this. The bush is classified as belonging to the male, the garden to the female; the wild pig to the male, taro to the female. Gifts of raw food are male, of cooked food female. Killing is the province of the male, nurture of the female.

Now such oppositions belong to 'symbolic thought', as Lévi-Strauss uses the term, precisely because of the kind of evidence I have brought forward in preceding chapters: it is the symbolic exchange relations holding between male and female, bush and garden, pig and taro, etc., that give them the status of binary oppositions in the structural analysis of Orokaiva culture. The difference between Lévi-Strauss' approach and my own does not lie so much in his and my use of binary oppositions as in my use of an exchange model in which the magical aspect of mediation is emphasised. For instance, my model 22 contains two binary oppositions: Man as Hunter/Pig as Marauder; and *Sovai*/Domesticated Pig. Both of these could, I think, be accommodated as part of a 'structural analysis' of Orokaiva culture. When I connect these two binary oppositions with arrows showing an exchange transaction distinguishing partners and objects of exchange and elements of mediation, I am introducing a 'subjectivist' element which is alien to structural analysis. I am showing a concern for the study of transactions, dialectical process, praxis, or perhaps Mauss' concept of *hau*. From a structuralist viewpoint, my arrows are entirely unnecessary as the exchange process is a prior condition of binary oppositions and has no place on the level of the model except as a logical operator (usually the symbol: /).

Now one problem with structural analysis is always at what point one should stop. Certainly analysis may reveal a great deal about the workings of symbolism in culture as it reduces social relations to exchange, exchange to symbolic thought and finally, in Lévi-Strauss' *Mythologiques* (1964, 1966, 1968) symbolic thought to computer signals. As Simonis (1968: 311) has wisely pointed out, at the final stage we move from a science of man to the logic of aesthetic perception. I think we should stop at the point most expedient for our own investigation. It is not useful in a study of Orokaiva exchange to carry on the analysis until exchange is reduced to the status of a logical operator. On the other hand, if in the manner of the phenomenologists we 'bracket' the logical priority of exchange, we find ourselves in difficulties when the folk system itself contains the type of dialectical reasoning upon which Lévi-Strauss founds his own theory. This is the problem with which we shall be concerned in the present chapter.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *arecu* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *arecu* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

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OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the [252] squeezed flesh produces coconut cream in which taro and delicacies such as river [262] crabs may be cooked. Young coconuts are cut open at the top and used for a [262] refreshing drink. Coconut is reserved for two kinds of everyday food gift: [272] cooked dishes offered to guests and young coconut offered to visitors on arrival. [431] Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it [146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut [231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance 778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by [881] the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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MODEL 20

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified with it. Identity, in this instance,[1] is not defined as attached to an individual but rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will henceforth regard it, in the same sense, as a symbol of identity. The ornament is then called an *otohu*, a term to be defined later. It is worn by its owner and those who see it recognise it as a symbol of its owner's moral integrity. It indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

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OJ23 Orokaiva OJ23
Mountain Orokaiva

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*nauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some form of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

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OJ23 Orokaiva OJ23
Mountain Orokaiva

tribes (twelve items), including in his list many *kambo* still in common use. Williams (1930) criticised this account on two grounds: some kinds of *otohu* were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed up in full dancing regalia, after which they make an impressive début at the village dancing ground. The ritual is known as *kogumbari*. It is performed by an expert whose main concern seems to be with the aesthetics of dressing up, and who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[2] this is not part of the initiation ritual as such, which occurs immediately after *kogumbari*. The dressed up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*aguma*) who recite their feats of war, their killing of victims. Initiates sit on a row of sticks laid on the ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 242 716 825 824

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

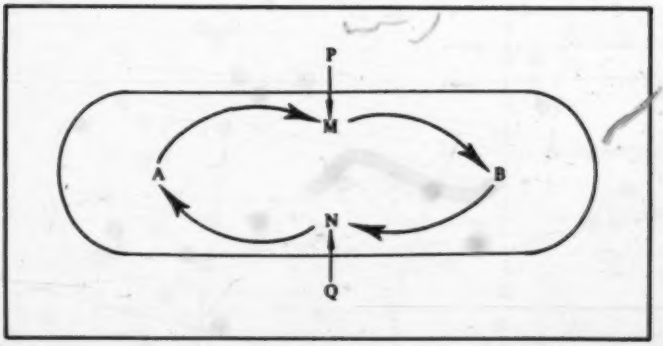
301 431 425 556 an economic standpoint, it is important that they represent storable wealth – the only storable wealth of the Orokaiva. Nearly every family today keeps *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

431 121 In the last five chapters exchange has been discussed largely on the assumption that it occurs on two levels. First, it occurs on the mythico-religious level where exchange relations are stated in the form of binary oppositions or possibly also some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



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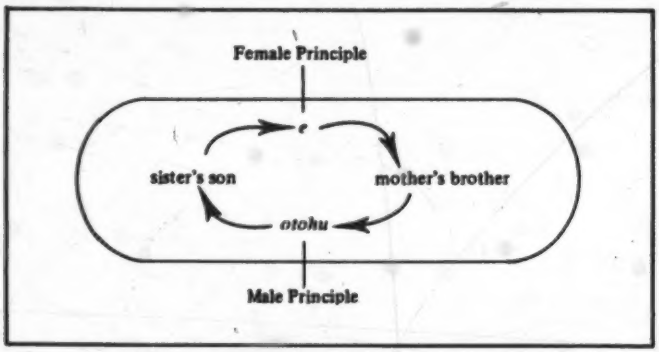
OJ23 Orokaiva OJ23
Mountain Orokaiva

As an example of the operation of this model, we may summarise the discussion concerning the sacred flutes and the *otohu*. On the mythical level there is a binary opposition between a male and a female principle. On the social level there is a relation between mother's brother and sister's son, which is mediated (*a*) by the mother; (*b*) by the gift of an *otohu*. On the technological level, there is opposition between a male and female initiation flute (respectively *otohu* and e = mother). These complex interrelations are shown with great economy in the following diagram:

MODEL 34



The objects of mediation under discussion in the preceding chapters have been mostly material objects, but the model is by no means confined to these. It is equally applicable to social objects of mediation. Indeed, in model 34, the word *e* appears in a double sense: as one of the two initiatory flutes, i.e. a material object, but simultaneously as 'mother', a social object. In the taro sociogram, we introduced a series of human mediators between a set of distant but equal exchange partners (model 20).[A] In discussing the *aguma*, we found the same pattern between a set of distant but unequal exchange partners (model 31).[B] Similarly, we may regard the mother's brother as mediator between initiand and the spirit world.

Some of the most important social exchanges are those which are mediated by a woman who is a sister of one of the partners and the wife of the other. We have already looked briefly at this type of exchange when discussing the coconut and betelnut myth (model 29).[C] In thus equating woman with an 'object of mediation' we are not thereby postulating any essential inequality between men and women except in as far as the Orokaiva happen to be patrilocal and patrilineal, so that it is the women, not the men, whose sexual role places them in a position of mediation. We are merely suggesting that two persons standing in a relation of *dambo* mediate their social relationship through a woman with which each, in a different way, is identified, one sexually and the other non-sexually. The asymmetry is balanced out by a counter-prestation on the part

A [See p. 182, Cat. 881--Analyst]
B [See p. 135, Cat. 431--Analyst]
C [See p. 171, Cat. 824--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the 'husband' who either gives a woman in exchange (direct marriage exchange) or else makes some kind of reparation for having deprived his exchange partner (generalised marriage exchange).

REFERENCES

1. Erikson, describing 'the beginnings of identity' in the adolescent, comes rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER X

MARRIAGE

1. *Introduction*

In analysing a system of exchange, our first task is to find the rules governing the objects of mediation. I have not dealt with all objects used by Orokaiva for the mediation of social exchange, but I have given enough examples to show both a method and a pattern. The effect of the rules is to place constraints upon the exchange partners. Examples of such constraints may be found in each of the five preceding chapters. In making land transfers a man is constrained, in the main, by the love for his sister who wants his land for her children. In the daily ritual of taro gifts, householders are constrained by their quasi-commensal neighbours. Gifts of pig meat are constrained even more severely by a taboo on eating pork reared by oneself or a close relative. The constraint in coconut and betelnut gifts is mainly felt after a death, with affines as preferential recipients. The *otohu* sets up constraints through the moral pledges made at the time of its transfer to the owner.

Each of these constraints compels the individual to make commitments outside the narrow confines of the small agnatic group. Land transfers to the sister, if hereditary, place the sister's son in a position of dual allegiance to the agnatic and uterine group. The taro gift network involves a majority of non-agnates and establishes a chain of non-agnates who become vicariously quasi-commensal. The obligation to keep pigs for mediating critical social relationships ensures that means are available for setting in motion new cycles of positive reciprocity, either with strangers or with former enemies. My analysis of the coconut-betelnut myth shows a commitment on the philosophical plane: it shows that Orokaiva do not view exchange merely as a social and economic expediency, but as expressing, in symbolic thought, the interdependence of the sexes. Finally, the existence of two basic identity symbols (*hae* and *otohu*) implies a profound psychological commitment to the exchange system commensurate in Orokaiva society with the commitment to the corporate group.

I have spoken, in each case, of constraints because there has been a tendency, in the study of New Guinea societies, to overemphasise the degree of freedom. A man does not give his land, his taro, his pigs, or his *otohu* to just anyone. There are very strong pulls in the direction of the corporate group and these are balanced by very strong pulls in the direction of the exchange system. Nor is it correct to assume that the former are determined by structural rules whereas the latter are determined by economic interest. A study of the objects of mediation has already shown that there are rules which make commitment to the exchange system either obligatory or preferential. Yet all the evidence brought forward so

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 497 121 far has presented this exchange system as a set of individual, though interconnected, networks.

If our analysis cannot go beyond the identification and description of these networks, we shall clearly have failed to establish exchange as an explanatory principle for the ethnography of the Orokaiva. The success of our enterprise therefore depends on the discovery of some constraints, existing within the exchange system, which are placed upon individuals in virtue of their membership of some corporate group. If such rules exist at all, one may assume that they are most likely to be found in the marriage system.

583 121 Here we enter somewhat controversial ground. In the introduction to a symposium on marriage in the New Guinea Highlands, Meggitt has recently (1969) asserted that, in that area at least, positive marriage rules do not exist but only what he calls 'contingent preferential arrangements'. If his arguments are accepted, there would be no positive marriage rules among the Orokaiva nor, as far as I can see, anywhere else in the world. His arguments hinge on his use of the terms 'preferential' and 'prescriptive', but even if we revert to the definitions given for these terms by Lévi-Strauss (1967: xvii–xxiii) a very careful and detailed investigation is required in order to determine whether or not the Orokaiva have any preferential rules of marriage and exogamy.

It may be best to start with Lévi-Strauss' own discussions regarding the problems of Melanesian marriage rules. When he wrote *Les structures élémentaires de la parenté* (1949), the ethnographic data from which a general model for the Melanesian area could have been securely constructed were lacking. Nonetheless Lévi-Strauss wrote a brief passage on this subject and ventured a bold hypothesis. The hypothesis seemed especially bold because at that time there was only one ethnography that could be quoted to support it, a description by F. E. Williams of the apparently aberrant kinship system of the Koriari (1932). I think nonetheless that his hypothesis is a most useful starting point for the analysis of Melanesian systems:

> *La Nouvelle-Guinée, et les régions avoisinantes, présentent, à un degré exceptionnel, un phénomène que Williams a decrit sous le nom d' "affiliation sexuelle", c'est-à-dire une différentiation de statut entre le frère et la sœur, l'un suivant la ligne paternelle et l'autre la ligne maternelle. Il est impossible d'interpréter ce phénomène en fonction de l'échange restreint: mais il devient très clair quand on l'envisage sous l'échange généralisé, puisqu'en mariage matrilatéral comme en mariage patrilatéral, le frère et la sœur suivent des destins différents. L'étude des phénomènes d'affiliation sexuelle . . . permet donc de définir, à travers tout le monde mélanésien, une sorte de faille de l'échange généralisé . . . Toute l'aire orientale, "océano-américaine", comme on peut le nommer, forme donc une sorte de théâtre, où se rencontrent échange restreint et échange généralisé, tantôt pour s'opposer, et tantôt pour se combiner* (1949: reprinted 1967: 534–5).

Since 1949, Lévi-Strauss has made several further contributions to the analysis of Melanesian societies. In the second edition of *Les structures élémentaires de la parenté* he suggested that *la ligne de partage entre les sociétés traditionellement appelées "primitives" et les sociétés dites "civilisées" ne coincide pas avec celle entre "structures élémentaires" et "structures com-*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 *dorobu* items are: pigs, taro, pots, bark cloth, feathers and bone and shell ornaments. To this we may add, for modern marriages, money. The pigs are sacrificed and not used for breeding. The pots and bark cloths are kept by the bride or distributed in her family but are not, as a rule, applied towards a future *dorobu*. Feathers and ornaments are kept by the various recipients who use them, may give them away or trade them at their convenience, but there is no fixed practice of applying them especially for *dorobu*. There is no circuit in which wives move in one direction, and *dorobu* in the opposite direction. When a *dorobu* marriage is afoot the prospective bridegroom, the members of his paternal and maternal *hue* and, to a minor extent, other members of his clan, will amass the goods that are necessary. Pigs are specially bred, taro may be specially grown. Birds are hunted for feathers. Trade goods are assembled for the acquisition of ornaments. In modern times, the prospective bridegroom seeks employment to obtain money. If the bride's brother happens to be collecting bridewealth at the time of the wedding, his own task may be facilitated, but he is still expected to show his prowess by going through the same operations as his brother-in-law.

583 606 The difference between African and Papuan practice is basically that *lobola* cattle are preserved whereas *dorobu* pigs are sacrificed. Though we are right in supposing *dorobu* to be a set of gift exchange objects, it would be misleading to say that *dorobu* is exchanged for a woman. I have collected detailed information (as yet unpublished) about the symbolic meaning of the transfer of the objects included in *dorobu*. This formulation is inconsistent with the theory that these objects are regarded as equivalent to a bride. Also, the especially aggressive behaviour of the bride's parents towards their new *imi* is hard to explain on the assumption that *dorobu* is in any way a symbolic equivalent of the bride.

The main recurrent theme of all informant's statements about *dorobu* marriage is the anger of the bride's parents. This anger is more than a mere psychological state: it is a basic part of the institution. The degree of anger may vary from one case to the next according to the amount of animosity that is felt towards the *imi's* village, family and person. If there is any hint of a breach of the exogamy rules it will be very great; if the *imi's* local clan group has a claim on a wife from the bride's village, the anger may be much less. But some degree of anger is expected in any *dorobu* marriage.

Dorobu is fundamentally a payment for anger.[3] When my interpreter wished to marry a classificatory *mosida* her father, after first refusing outright, finally set a brideprice at a rate more than four times as high as had ever been paid in the village. This was out of the question and my interpreter left the village soon afterwards. People told me this price showed the measure of the man's anger. A similar line of explanation was followed when I asked informants the meaning of the strict rules of avoidance practised towards affines. I asked: 'Why do you behave in this way? Don't you like your *imbohi*?' The reply was: 'I love her very much because it was she who gave me my wife. But I feel ashamed because I shall never be able to repay her.'

431 583 It is possible, from the evidence of rites and myths, to reconstruct the significance of the various gifts that compose *dorobu*. Summarising the results of such a reconstruction, I suggest that the gifts of taro and pig both re-enact a sacrifice in primal time where a man, identified respectively with taro and pig, is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

423 [224] [22C] The only local hunting land held by Sivepe people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by rooming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[43] [42C] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[14C] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

[C57] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

e. Economic trees

Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

Chapter 4

The cash economy

a. Income and expenditure[1]

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

434 [583] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepo as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A, [See Category 454, pp. 107-108--Analyst]

464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
[466] District. The young men on the other hand readily leave village life temporarily to take casual work on European plantations in the district where there is now a greater demand for labour. They may leave their wives and children to be provided for in the meantime by the other side of the family or may have them accompany them to the area where they are employed. These absences interrupt the routine of subsistence activities for the family but the possibility of this course of action is left open by local environmental conditions and the virtual independence of the nuclear family as a gardening unit. There is little seasonal variability and this small group is free to resume any phase of garden activities when and where it chooses.

●431 Among the 5 able-bodied and active men of the senior group there seems to be no consistent demand for cash which cannot be met by gifts from their kin or affines and they have sought temporary employment only as a means of meeting some immediate financial requirements. With the exception of the salaried local government councillor the older men received 78 per cent of their total year's income of $88 as gifts.

434 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods available locally as well as on kinship obligations. However, not all income is spent in this way and, as Belshaw found in this area (1951:11) there is both some capital available for investment and a willingness to contribute money to funds for this purpose if they can be organized.

The men who have spent most years in paid employment also supplement their income by producing rubber and coffee, sometimes with the assistance of their fathers. However, no one has invested heavily in these crops and they provided only $52 or 15.8 per cent of the sample's income for the year.

245 c. Commercial agriculture

(1) Coffee. Four householders in the sample have individual coffee plots with a total of 503[1] trees on 1 acre of land. One of these plots is a section of a former village or 'company' coffee plot. About the time of the opening of the Higaturu Council in 1956 members of Jegase, Timumu and other groups in Sivepe and Binduta villages participated in the planting of 2 'company'

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[1] The agricultural census of 1964 recorded 1,100 trees held by 5 growers in Sivepe as a whole (162 were not yet 6 years old and 491 of the trees had been planted more than 10 years before).

621 614 with some of their co-residents; nevertheless, common residence implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional entities.[1] [431] [476] Marriages between members of the different clan branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 [611] [613] (i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot necessarily trace, common descent from a usually eponymous ancestor. Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

[622] [554] (ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is characterised by 'big men' (embo dombo) and an ascendancy of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

591 (iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be changed at any time. [592] [594] The composition of individual households within the village likewise varies, although the basis is generally the nuclear family. [614] [166] The distribution of clan branches through a number of villages is closely related to access to the group's land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

[24] pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

[262] In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the [224] domestic pig, and birds and small marsupials which are hunted. In [226] Inonda and other areas more low-lying than Sivepe, rivers are larger and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that [262] yams and sago also are very recent introductions into their area. The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sere',[3] as distinct from the ordinary taro gardens, called 'pure'. [824] The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

[43] [43] (ii) Exchange. The most common transactions are the daily exchanges of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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[1] Breadfruit is common only in the inland areas.

[824] [2] Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

[3] Such gardens are often only roughly cleared and not weeded, thus reducing labour.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

166

431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

433 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

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525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

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[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

[121] [464] assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

[464] [433]

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

556 [595] Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

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556 [25] [24] [43] [43] An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting 433 some of the needs of those without yams. In such a case there is no limit to the individual level of productive although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. [24] This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about
[342] *3.25 years*. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[312] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
● 431

> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

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> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

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In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

765

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

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The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

159 554 his position being acknowledged by the widest range of people. Although in no sense a 'director' of village affairs he was the last villager to receive an otohu[1] and the first to obtain any formal education.[2] His position is therefore derived from his apparent ability to encompass both the 'old' and the 'new' ways, thereby gaining the respect of most members of the community. This elevation in his status is a recent development, not evident during Rimoldi's stay in the village, and in all probability influenced by the fact that he is an adopted member of Timumu clan and only 38 years old.

554 [431] [476] A married man with five children, he lives next door to his ageing step-father and mother giving them, as well as other older villagers, considerable gifts of food and assistance with such customary group enterprises as clearing garden sites, harvesting yams and house construction. Further, with an age mate from Seho clan, he accepted full responsibility for the organisation of the major sago-making venture during the dry season, at the request of his mother's brother. Among younger members of the village his stature is derived from extensive experience in paid employment[3] and his active interest in and responsible approach to cash-producing activities within the village.

Linton has the largest cultivated area of those surveyed and the largest holding of yams. Also, being the owner of a shotgun, an active coffee grower,[4] an CCGS shareholder and, during the survey, erecting a house of local materials under contract for Saiho hospital, his commitment to the external economy is both varied and substantial.

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1 The otohu was an ornament presented to selected initiates which conferred on them important social obligations. In a discussion of the nature and purpose of the otohu Williams (1930:204-5) states: 'Adjectivally, the word seems to indicate "well-behaved" in the widest sense of the term. It was applied to a law-abiding and amenable member of society, and perhaps the nearest equivalent in our language would be "decent" or "respectable". The emphasis is certainly laid on the milder virtues rather than the more heroic. Thus a man was otohu or otohu-embo who did not quarrel, who did not beat his wife or children, who did not ill-treat his dogs and pigs, and who did not steal.... Diligence bears some part of this rather complex ideal, and so certainly does generosity....
We may conclude, therefore, that the possession of an otohu does involve a social obligation. It is an honour and a privilege bestowed by society, but it means that the recipient should settle down as a thoroughly amenable member of that society.' In Linton's case the otohu was presented at a specially arranged ceremony, apparently in acknowledgement of his upholding of traditional Orokaiva values.

2 He spent a year at Isivita school prior to the second world war.

3 A total of 9½ years spent, largely in an unskilled capacity, in Port Moresby, Lae, Salamaua and elsewhere in the Northern District.

4 Although without a coffee garden of his own, he has successfully asserted a claim to trees acquired by another Timumu man following the subdivision of a communal planting established about 1956. See Rimoldi 1966:83-4 for a description of this planting.

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Saiho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timumu clan cut it up and sold it, giving all the proceeds to Linton's mother.
●[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

472 Linton faced a similar conflict between custom and cash in his hunting activities. As
224 the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would
[571] hunt on their behalf if they provided the cartridges and a cash payment of 10c with each cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 58.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-35. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Saembata clinic.

entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

472 achievement of several ambitions, including the acquisition of a carpenter-built house. He spends more time on cash-producing activities than any other villager and is the recognised spokesman in all village-level contacts with the external agencies. Through his experience he was able to win and fulfil the construction contract at the airstrip, as well as arranging for the sale of hardwood trees to the Administration, which others could, but did not do. Half of the time spent on entrepreneurial activities is on the trade store and the rest mainly on the contract. As will be shown in Chapter 12, these activities are more rewarding than cash cropping, and the entrepreneur spends less than 0.5 hours a week on his coffee holding and 1.0 hour a week on copra. Paid work and the other main source of cash, marketing, account for only 1 hour a week. Altogether, involvement with the monetary sector and external agencies occupies about 10 hours a week, or 37 per cent of the total - a higher proportion than for any other villager.

[512] [461]

461 The most time-consuming activity after entrepreneurial activities is hunting, although prior to his purchase of a shotgun in July Lawrence spent very little time this way. This and other food-producing activities occupy as much time as paid work and entrepreneurial activities and double the amount spent on subsistence gardening. Productive activities in both sectors account for almost 42 hours, 80 per cent of the weekly total.

It is clear that for the entrepreneur cash-producing activities have the highest priority once subsistence is assured. In this connection, it is noteworthy that during the dry season, the intensive labour by all the men on construction of the copra-drier took precedence over other activities, but when a pig invaded his garden Lawrence spent two days in fencing and only then resumed construction of the drier.

512 [527] [431]

Marjorie. This woman is aged 21 and is married to Embogi's eldest son, who began establishing a coffee garden during the survey. They have one son, and held a party to mark his first birthday in March. Marjorie was born in Hohorita village, as were four other Inonda residents, and she was educated to standard V. Her father's brother is a teacher at Popondetta mission school, where several other relatives also work and she spent a considerable amount of time visiting these and other kin, usually taking gifts of garden produce and receiving in return storebought foods and cash. In addition to the average 2.7 hours a week spent in this way, she was absent for 13 days on visits and for another 6 days on mourning and funeral obligations when her father and her husband's mother's brother died within a week of each other. Her frequent visits and gifts to her kin were

[TEXT CONTINUED ON PAGE 164]

In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed osisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

Visoare are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.28--Analyst]

431 572 574 only made with people from distant villages, who may or may not be kinsmen, and they always involve a visit to the party making the gift. This may be followed by a return visit at a later date but there is no necessary sequence or routine. Gifts made to relatives coming from a considerable distance to attend a mourning and those received as the specific motive for a visit (as in the case of Orokaiva going to the Managalase to receive di (feathers)) are both categorised as umbare.

121 Such exchanges and transfers of goods can be seen to operate within clearly-defined social contexts. Sahlins (1965:139) notes that 'A material transaction is usually a momentary episode in a continuous social relation'. He continues,

> A specific social relation may constrain a given movement of goods, but a specific transaction - 'by the same token' - suggests a particular social relation. If friends make gifts, gifts make friends. A great proportion of primitive exchange, much more than our own traffic, has as its decisive function this latter, instrumental one: the material flow underwrites or initiates social relations. Thus do primitive peoples transcend Hobbesian chaos. For the indicative condition of primitive society is the absence of a public and sovereign power: persons and (especially) groups confront each other not merely as distinct interests but with the possible inclination and certain rights to physically prosecute these interests. Force is decentralized, legitimately held in severalty, the social compact has yet to be drawn, the state nonexistent. So peacemaking is not a sporadic intersocietal event, it is a continuous process within the society itself....
>
> Even on its strictly practical side, exchange in primitive communities has not the same role as the economic flow in modern industrial communities. The place of transaction in the total economy is different: under primitive conditions it is more detached from production, less firmly hinged to production in an organic way. Typically, it is less involved than modern exchange in the acquisition of means of production, more involved with the redistribution of finished goods through the community. The bias is that of an economy in which food holds a commanding position.... It is the bias also of a domestic mode of production.... It is the bias of a social order in which rights to control returns go along with rights to use resources of production, and in which there is very limited traffic in titles or income privileges in resources. It is the bias, finally, of societies ordered in the main by kinship. (Sahlins 1965:139-41)

Individual exchanges are not, therefore, spasmodic acts. Together they form a system founded on the network of social relations. This

Chapter 10

Exchange patterns: Sivepe

The nature and volume of transactions

437
[125] As in the case of data relating to activity patterns, the transactions of the 35 adult members of the sample were recorded over a period of 25 weeks and 4 days, or 4,741 man-days. However, in view of the household functioning as the basic unit of production and consumption, attention was restricted to inter-household exchanges. These transactions were effected on only 63 per cent (2,987) of the man-days, the mean number being three per transacting day. Distinctive features are associated with the range, nature of partner and circumstances in which each of the five identified categories is exchanged. Subsistence produce and [431] labour services are associated primarily with the subsistence sector and cash crops, storebought goods and cash with the external, the former being characterised as gift exchange and the latter as monetary in that there is an immediate exchange of goods for cash (see Tables 10:1 and 10:2).[A] Although large sums of money do enter the community through the gift exchange system, it will be demonstrated that these originate primarily from wage earners employed in the external sector. In effect, therefore, the distinction which emerges between the two sectors in production and activity patterns is maintained in the systems of exchange. The concept of the market economy is of only restricted application although, as the volume of gift exchanges suggests, it does not follow that there is no demand for subsistence produce within the community.

(a) Non-monetary sector

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437 (i) Subsistence produce. Subsistence foodstuffs dominate the non-monetary transactions with 25,909 lbs being exchanged. Both at the level of specific goods and of the sum of goods the basic feature of balance in exchange is demonstrated for, if transactions with the researchers are excluded, acquisitions account for 48 per cent of all transactions. Since this equivalence also occurs at the level of individual goods it suggests no significant geographical variations in the relative abundance or scarcity of goods within the range of transacting partners. While the volume of transactions of specific items does, crudely, reflect the relative importance

A. [See Categories 438, 439, pp. 186 & 189--Analyst]

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

[1] This figure was determined by using yield data gathered in Sivepa during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 10:1

Sivopi: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total	%	Amount received from researchers*	Total	%	Amount disposed to researchers*
A. Subsistence produce	(lbs)		(lbs)	(lbs)		(lbs)
Taro	3,390	29	1	4,151	29	388
Sweet potato	1,136	9	-	1,942	13	543
Yam	870	8	-	1,423	10	193
Leatherjacket 'Soup'	350	3	-	104	1	8
Sugar-cane	169	1	4	228	2	43
Corn	155	1	-	161	1	30
Banana	100	1	-	211	1	90
Coconut	1,096	9	-	827	6	111
Pandanus fruit	274	2	2	281	2	66
Sago	156	1	-	140	1	5
Areca/pepper/lime	556	5	-	744	5	19
Breadfruit	107	1	1	100	1	4
Other cultivated produce	968	8	-	1,497	10	80
Pig (domestic and wild)	306	3	-	586	4	361
Cuscus	1,245	11	-	1,372	9	8
Other product of hunting or foraging	138	1	-	181	1	-
Other (firewood, etc.)	138	1	-	180	1	7
Total	297	3	-	330	2	-
	11,451	97	13	14,458	99	1,956
B. Labour services	(hours)			(hours)		
Cash sector	128	12		143	13	
Subsistence sector	1,030	88		953	87	
Total	1,158	100		1,098	100	
C. Storebought goods	($)			($)		
Rice	15.08	8	1.30	5.42	22	0.12
Tinned fish	12.63	7	0.85	5.10	21	0.10
Tinned meat	2.95	2	-	0.06	-	0.02
Bread	1.19	1	-	0.10	-	-
Other foodstuffs	3.64	2	0.02	0.74	3	0.02
Alcoholic drinks	1.39	1	-	-	-	-
Trade tobacco	31.66	17	14.67	5.02	20	0.10
Cigarettes	1.49	1	-	0.06	-	-
Clothing	46.20	25	-	2.74	11	-
Radio/watch	30.00	16	-	-	-	-
Other personal goods	9.36	5	0.35	0.54	2	-
Household goods	6.12	3	3.38	2.34	8	-
Cartridges	9.40	5	0.60	2.00	8	-
Batteries, torches, bulbs	2.68	1	2.40	-	-	-
Other tools and equipment	4.99	3	-	0.73	3	-
Total	181.82	97	23.57	24.87	98	0.36

* Included in total.

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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[1] For a detailed account of the activities of these two men, see pp.117-21, 126-7.

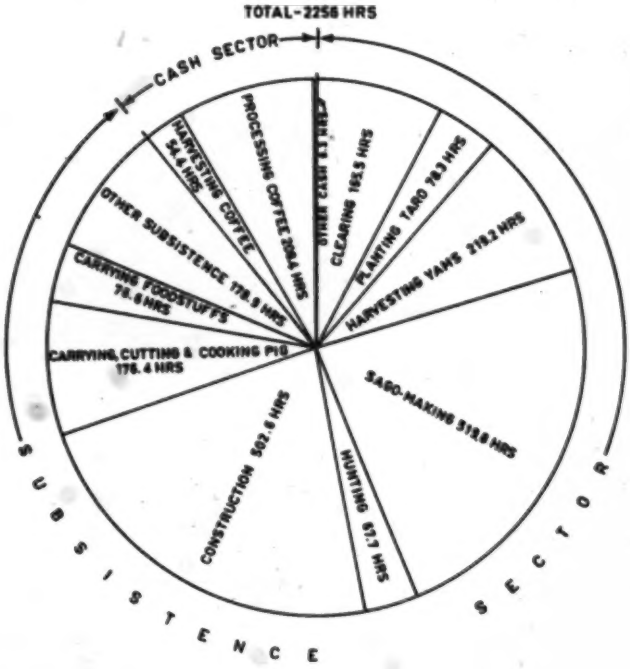
[2] See pp.114-17.

A, [See Category 534, pp. 117-119; Category 461, pp. 120-121; Category 512, pp. 126-127--Analyst]
B, [See Category 461, pp. 114-117--Analyst]

461

SIVEPE FIGURE 10:1

NON-MONETARY LABOUR SERVICE TRANSACTIONS



431 no evidence that these gifts are reciprocated. Absentees continue to make them in order to protect their interests in the village against an eventual return, to acknowledge support being given to any dependents remaining behind, and to ensure their own accommodation during holidays. Villagers would like to repay such gifts with subsistence produce but, apart from one instance arranged by the researcher, are unable to do so for lack of adequate transportation.

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

432 (b) Monetary sector

438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivope and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Awala to receive payment for coffee previously delivered.

434 (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.[1]

[1] But see p.203.

434 Excluding the researchers' contribution to total income only 39 per cent is derived from the sale of cash crops and subsistence [43] produce, the bulk entering instead through the gift exchange system, largely in the form of remittances. By contrast, excluding bank deposits, 63 per cent of disposals takes place in the monetary system, principally as purchases of storebought goods, only a minority being distributed as gifts. In effect, therefore, the gift exchange system serves as the principal mechanism for the acquisition of cash, but only a minor part entering in this way is so distributed, income being used rather to purchase goods unavailable in the subsistence sector of the economy.

Seasonal variations in exchange patterns

438 (1) Subsistence produce (see Table 10:4 and Fig.10:2). Although no net movements of subsistence produce in or out of the sample are identifiable, other than those directed to the researchers, transactions do reflect the temporal pattern of availability of particular goods. Three broad categories are identifiable - continuous, seasonal and periodic. Of the main cultivated plants only the circulation of sweet potato is maintained at a constant level throughout the year, as it is more tolerant of dry conditions than the staple, taro. However, in terms of diet, its role is not important and in only two weeks did it constitute the major item of exchange.

During periods I and III taro predominates in transactions comprising 37 per cent and 32 per cent respectively of the total volume, but with the annual fall in production in the dry season it declines to 11 per cent, and breadfruit and sago replace it as the main exchange items with 35 per cent and 17 per cent respectively. [262] The production and distribution of these latter crops is almost entirely restricted to the dry season when they constitute the major part of the diet. The peak in breadfruit exchanges precedes that of sago, this being a reflection of both food preference and labour productivity. Only after the supply of the former has been largely exhausted is the labour intensive work of sago extraction resorted to.

Among the Orokaiva, as elsewhere in New Guinea, meat, in particular pig, provides the classic example of goods only periodically available. Although most pigs are exchanged ritually prior to consumption, the fact that a specific quantity of meat may change hands several times, commonly by a process of subdivision and partial redistribution, precludes any meaningful estimation of the level of consumption. It is nevertheless worth noting that on twelve weeks no transactions were effected and on only six did the total volume exceed 100 lbs. On two of the latter six weeks pig was the major exchange item, on a third the volume was only marginally exceeded by that of taro, while on all three weeks it accounted for more than one-third of all transactions.

592 437 established in the village (4 and 7) scarcely participate at all unless they make specific efforts to obligate others to them or to settle existing obligations, as with 6 having a sago palm felled and 7 assisting his affines in subsistence tasks on numerous occasions.

The network of inter-household exchanges of these scarce goods and of services, even at the level of co-residents and close kin, suggests the system to be primarily a negotiated and exploitative one with the ideal of communal interests and group security relegated [43] to a subsidiary role. This dual aspect of exchange is exemplified in a statement of intentions made by the head of household 18 where, in distributing some sago, he proposed to make large gifts to three people 'because they are always quick to help me when I am in need of food' but smaller gifts would be made to others since 'it would be an insult not to share with other people when they see I have plenty of sago'. In fact the security with which older people are provided is of a low order if the volume of exchanges with others is considered.

Income and expenditure of cash over 46.5 weeks

434 The level of the Sivepe people's commitment to the external sector of the economy is demonstrated by their income and expenditure patterns. All households handled some money during the period from February 1964 to January 1965 and even household 4 which registered a gross income of only 50c during the period it was present, left the village with the specific object of seeking wage employment on a Sangara plantation (see Table 10:10). Cash croppers handle substantially more money than non-cash croppers but this fact is not simply a function of the agricultural activities of the former. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping.

As the single most important source of income, remittances rank with proceeds from the sale of cash crops and, for cash croppers, these two provide their main sources of cash. By contrast non-cash croppers derive over half of their income primarily from Sangara settlers and secondarily from other villagers[1] (see Table 10:11).

[43] The value of connections with wage earners and Sangara settlers is enhanced by the gifts of goods frequently associated with the

[1] Some money is also obtained directly from the sale of cash crops. Two cases were recorded of quantities of coffee being given to non-cash croppers in acknowledgement of assistance rendered; while in a third a young member of a non-cash cropping household emulated his brother in exploiting the communal rubber planting.

A, [See Category 511, p. 205--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

454 money received from them. As demonstrated in Table 10:15, such
● 43 people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much
[436] the same manner - in effecting what are largely necessary exchanges with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the former to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others,
[556] while, of the five households with the highest incomes, the heads of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A,[See Category 437, p. 214--Analyn]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 10:11

Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
Number of adults	19		16		35	
Man-weeks surveyed	751.5		509.5		1,261.0	
	$	%	$	%	$	%
Sources of income						
Cash crops	174.95	35	15.00	15	189.95	32
OCGS dividend	5.40	1	-	-	5.40	1
Paid employment*	18.90	4	2.25	2	21.15	4
Remittances**	162.50	33	3.80	4	166.30	28
Gifts and payments from Sangara settlers	0.40	-	33.60	33	34.00	6
Subsistence produce: marketing, hawking and casual sales	16.50	3	10.75	11	27.25	5
Sales to Administration	7.80	2	3.45	3	11.25	2
Gifts, loans and payments from villagers	47.05	9	25.40	25	72.45	12
Researchers	62.03	13	6.53	6	68.56	11
Total	495.53	100	100.78	99	596.31	100
Mean per man-week	0.66		0.20		0.47	
Directions of expenditure						
Trade store purchases	189.91	48	38.82	53	228.73	49
Mission (Mothers' Union) purchases	4.35	1	4.10	6	8.45	2
Marketing, hawking and casual sales	18.08	5	2.60	4	20.68	4
Fares, travel	12.00	3	0.50	1	12.50	3
Bank deposits/shares	32.00	8	-	-	32.00	7
Administrative agencies	4.00	1	-	-	4.00	1
Mission offerings	45.09	11	2.60	4	47.69	10
Local Government Council tax	28.00	7	14.00	19	42.00	9
Gifts, loans and payments to villagers	57.90	15	10.34	14	68.24	15
Gambling losses	4.00	1	-	-	4.00	1
Total	395.33	100	72.96	101	468.29	101
Mean per man-week	0.53		0.14		0.37	

* Including local government Councillor's salary.
** Including gifts from wage earners in District.

437 absences from the village[1] and the services are normally reciprocated with goods originating in the external sector.

The exchange of cash crops (for cash) is wholly bilateral in form - between producer and buyer - with no other movement identifiable. This does not apply to storebought goods. While 46 per cent are obtained directly from trade stores and other organisations, [438] significant quantities are also received from wage earners, as well as from other subsistence villagers. The bulk of goods obtained from organisations are foodstuffs and stimulants (59 per cent) and [439] these may be consumed casually or redistributed, primarily in ceremonial exchanges. Wage earners outside the District are the second most important source of storebought goods; in this case the goods are largely non-perishable and of a comparatively high value 431 as, for example, a radio, clothing, bedding and linen. Three parcels of gifts received were valued at $44, $35 and $19 each. Not only are such items suited for postal delivery but these are the only people that can really afford to make such gifts. Wage earners within the District are unable to make large gifts, both because of their lower incomes and the frequency of inter-visiting. Instead small quantities of food or used clothing are commonly given by them, although on one occasion a villager received a second-hand watch and on another, a number of sacks. The latter are highly valued for the storage of coffee.

438 The 19 per cent of storebought goods obtained from villagers
439 fall into two categories - food which, as stated above, is mostly ceremonially exchanged,[2] and cartridges. Both the owners (or the operators) of shotguns received frequent requests to hunt on behalf of others, in return for the supply of cartridges. However, one of them also expected an additional payment of 10c per cartridge from some people for the service.[3]

437 With the exception of a few small gifts of prepared food made to the researchers, the acquired storebought goods are only given to other subsistence villagers. Essentially, therefore, the pattern of movement of these, as of subsistence produce, reflects the different resource bases of the various socio-economic categories where the diffusion of kin facilitates reciprocally based exchange or, in the absence of kin, monetary exchange. The opportunities for this latter type are enhanced by the introduction of non-kinsmen into the subsistence villagers' orbit, particularly as mission

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[1] See p.77.

[2] In one minor feast an individual received thirteen tins of fish and large pots of rice and tea, apart from the customary range of subsistence produce.

[3] See p.119.

437 Palminus was able, like Linton, to establish an exchange relationship with a man employed in Popondetta, in this case a distant relative of his wife, working as a carpenter. On his occasional visits he took him food, receiving in return cash and storebought goods. Apart from this case, however, Palminus' transactions are almost entirely restricted to [431] subsistence goods and services - food and labour in harvesting yams. Acquisitions amount [765] to 82 per cent of all his subsistence produce transactions (compared with 54 per cent in Linton's case), the greater proportion reflecting events following the death of one of Palminus' sons early in the survey when gifts of food were received from a wide range of kin during the week that he and his wife remained in their house.

[562] Gorukari. Like most women Gorukari transacts little apart from subsistence produce and, in this, the substantial excess of disposals over acquisitions reflects her responsibility for distributing plates of cooked food. Outside her own family her immediate responsibilities are to her husband's ageing parents and their remaining dependent children who live next door. While the two families frequently prepare their meals at the same hearth the periodic sickness of the parents also involves Gorukari in providing food for them. In addition she temporarily accommodated her husband's father's sister, a widow, and her [431] children. This family appears to have had some difficulty in achieving subsistence[1] and Gorukari frequently provided them with food. These gifts were acknowledged following the widow's remarriage and departure from Sivepe.

Elsewhere within the village Gorukari exchanges produce primarily with women from her own age group, where the bond is one of common interest rather than of kinship. Outside the village she maintains contact with two of her natal kin - her mother, who lives about one hour's walk away, and her sister, married to a medical orderly at Saiho hospital. These periodic visits also enable Gorukari to take food to her husband's father's sister who is married into her mother's village.

Olga. Olga's exchanges follow a similar pattern to those of Gorukari. They involve, almost exclusively, subsistence produce, disposals of which account for 71 per cent of all transactions. Within the spouse's lineage frequent exchanges are effected with her son and his wife whose house is adjacent. Elsewhere major exchange relationships are maintained

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1 See p.94.

437 with immediate kin and with individuals receiving acknowledged support from her. In the first category are two daughters residing with their spouses' families (one in Sivepe and the other in a neighbouring village) during the spouses' absence in wage employment. The second comprises her brother's son and his wife, who resided briefly in Sivepe but were without adequate food resources of their own, and her sister's daughter's daughter, previously cared for by Ciga, plus the girl's present guardian. Finally, significant gifts of food were [431] received from a cross-cousin residing in another village.

Rodney Gill. With no significant food supplies of his own Rodney Gill only receives subsistence produce and disposes of his one abundant resource, labour. His exchanges are predominately with immediate kin - his brother and brother's wife residing next door - [431] and they are the sole recipients of assistance in cash cropping activities. However, help with subsistence tasks is given to, and gifts of food received from, a wider range of individuals, all belonging to households located at his end of the village. Rodney Gill has no important exchange relationships outside Sivepe.

437 Umbahapa. As an aged and partially lame widower Umbahapa is dependent on regular 431 gifts of food from his sister and a married daughter living next to him and he normally 737 disposes of little himself. This pattern was temporarily altered during the survey by the decision to fell one of his sago palms. This resulted in assistance being received from, and sago distributed to, a large number of villagers. In fact these transactions were only nominally Umbahapa's since he had delegated to his sister's son, Linton, the responsibility of organising the work and distributing the sago, while, prior to its distribution, the sago was held in his sister's husband's house. Participation in this venture was determined by individual need for food rather than kinship criteria.

Storebought goods, in particular an axe, provided the most important gifts from kin outside the village, such items being the ones he is least likely to obtain as a result of his own endeavours.

437 The cases discussed above outline the pattern of sustained interchanges among individual villagers. However, they do not indicate the whole range of an individual's close genealogical kin since the network of exchanges is directly influenced by considerations of distance and by the links established through marriage between the clan branches represented in the village. The first imposes severe restrictions on the movement of goods, particularly subsistence

produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

Other major exchange relationships operate with affines, matrilateral and patrilateral kin and are typically restricted to members of the individual's age group, for example, cross-cousin, wife's brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, who were of both sexes and stood in a defined relationship where each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

In effect, regular exchanges operate between members of one's own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

Chapter 11

Exchange patterns: Inonda

437 [423] ### The nature and volume of transactions

The Inonda people carry out exchanges of subsistence produce, labour services and items derived from trade stores not only with each other but also with people from other villages, with settlers and with kinsmen or friends who are wage earners. Reciprocation for a gift is not necessarily on the same occasion, or in the same quantity or of the same item. The exchanges effected by the 21 adult members of the village were recorded simultaneously with the data on activity patterns, a total of 2,782 man-days being covered.

(a) Non-monetary sector

438 [262] (i) Subsistence produce. Table 11:1 shows the total amounts of each item given and received by the villagers in all non-monetary transactions. The dominant position of taro in the horticultural system and the diet is emphasised by its role in exchanges. The economic importance of the sparsely-populated grasslands and hill areas is also clear from the fact that wild pig is the next most important item after taro; other hunted produce and fish are also significant. Some allowance should be made for the fact that pig carcasses, weighing up to 200 lbs are often given whole rather than after the removal of the gut and bones.[1] In addition, portions of meat frequently pass through a 'chain' of exchanges and are thus counted several times. This process occurs more rarely for vegetable produce. These qualifications, however, are not sufficient to diminish the significance of pigmeat in the exchange pattern. Sweet potato is the second most important crop (see Table 4:9) and the third most important item in subsistence transactions. Banana, sugar-cane, yam and pumpkin are the main subsidiary crops and are also significant in the exchange pattern. The comparatively small

[224] [1] This practice is determined partly by the belief that in certain circumstances, such as when using a new gun, spear or new hunting dog, a hunter should not keep the prey to himself.

[TEXT CONTINUED ON PAGE 234]

438 proportion formed by pitpit is due to the fact that it was only in season during the first twelve weeks of the survey (see Table 11:4). Yams, Xanthosoma and sago are similarly seasonal and in certain weeks are more prominent than shown here. Of the other cultivated products, areca nuts are important although they amount to only 93 lbs acquired and 39 lbs disposed over the survey. One lb consists of approximately 24 areca nuts, so that about 86 nuts were acquired and 36 nuts disposed of by the village as a whole each week. In other words, there is a regular traffic in areca. Inonda people are dependent on outsiders for the nut because the palm does not grow well on their land.

It is noteworthy that the total acquisitions and disposals of subsistence items are very close to balancing - the excess of the former amounts to only 76 lbs out of a total of 14,000 lbs. However, the reservation should be made that the balance is achieved by equating all items on the basis of weight, and this does not exactly reflect Orokaiva methods of calculation. It is, nevertheless, probable that the outflow of the most favoured foods - taro (800 lbs) and pigmeat (375 lbs) - helps to balance the inflow of services and storebought goods and that this is an expression of the Orokaiva ideal of reciprocity in relationships.

437 (ii) Labour services. The exchange of labour services is to
[431] some extent a matter of individual inclination. Where an obligation exists, it has not necessarily been incurred through an equivalent service, nor is reciprocation in this way essential - it may, instead, be through a gift of garden produce and obligations and reciprocations may be separated by a time-lag of a year. For this reason and others discussed below, the pattern of services over a period varies from individual to individual and acquisitions and disposals are not often in balance. In Table 11:1 the excess of acquisitions over disposals of labour services in the subsistence sector reflects large amounts of labour given by people from other villages, mostly young men staying for a few days or weeks with kin in Inonda. They contributed 42 per cent of subsistence services, in such tasks as house-building, sago-making and gardening. If it is assumed that people who are temporarily absent from Inonda follow the same work patterns as people temporarily resident, this apparent excess would be considerably reduced.

439 (iii) Storebought goods. Table 11:1 also shows the values of
431 goods derived from trade stores that are circulated through the
[123] gift exchange system. Thirty-seven per cent of the total value of acquisitions shown was in gifts from research workers. One-third of this was in the form of a parcel of clothing from a research worker in Australia and the rest was contributed during the survey. The most significant contributions were of trade tobacco, mosquito nets (shown as 'personal goods'), clothing and a suitcase given to the leading man for his journey to Port Moresby.

Discounting the effects of the researchers' presence, there is a considerable excess of acquisitions over disposals. This largely reflects the continued participation in the gift exchange system of villagers' kin who are in close contact with the monetary sector as wage earners or settlers (see Table 11:9).[A] The contributions of such people are particularly marked in the case of rice and clothing, which are, in terms of value, the most important items of storebought produce entering the gift exchange system. As well as rice, tinned fish, bread, trade tobacco and several lesser food items all enter into the exchange system occasionally. They are invariably given in small quantities, sometimes in the daily food transfers and sometimes as contributions to a feast or party.

(b) Monetary sector

Table 11:2 shows the total values of items acquired and disposed in exchanges involving an immediate return of cash. Purchases of subsistence produce are insignificant compared with the amounts acquired through gift exchange and they are usually made to fulfil an urgent need, such as feast contributions. Areca nuts, however, are bought occasionally. They are mostly obtained in the Popondetta market, whereas fish and game are purchased from hawkers. Some garden produce was sold to road construction workers early in the survey, but the main sales of subsistence produce were made in Popondetta market during periods II and III and comprised mostly fish and smoked meat from hunted animals. The Inonda people acquire almost four times as much cash from sales as they spend on purchases of subsistence produce.

In total, subsistence produce accounts for only a small proportion of monetary exchanges, which are concerned mainly with storebought goods. The total value of purchases of such goods is almost $200. As with gift exchange, clothing and rice are the most important items, with certain other foodstuffs - tinned fish, bread, sugar, biscuits and flour - also accounting for significant proportions. Apart from food and clothing, the main items purchased comprise household goods and tools and equipment for work.

Apart from goods sold through the medium of the trade store,[1] copra was the only non-traditional commodity sold during the 26 weeks of the recording periods. Some coffee was, however, sold in the weeks intervening between the three periods.[2]

The excess of acquisitions over disposals of storebought foods is evidence of the comparatively slight degree to which they enter into the gift exchange system, with the exception of rice and tinned

[1] For details of the operation of the trade store, see p.255. [B]

[2] See p.257.

A,[See Category 892, p.247--Analyst] B,[See Category 444, p.255--Analyst]

meat and fish. Between 4 and 6 lbs of rice are given out each week on average, mostly as plates of cooked rice.

Table 11:2

Inonda: major items of monetary exchange over the whole survey period

		Acquisition			Disposal		
		lbs	$	%	lbs	$	%
A.	Subsistence produce						
	Xanthosoma	50.0	0.70	9	-	-	-
	Banana	-	-	-	25.0	2.10	7
	Coconut	2.0	0.10	1	15.0	0.75	2
	Areca	9.8	2.06	27	1.0	0.20	1
	Tobacco	-	-	-	0.5	0.20	1
	Fish	8.5	2.10	27	39.0	6.80	23
	Crocodile	-	-	-	12.0	4.50	15
	Bird	-	-	-	12.0	2.10	7
	Bandicoot	1.0	0.10	1	3.5	0.90	3
	Wallaby	5.0	0.30	4	35.0	3.50	12
	Pig	21.0	2.40	31	87.5	8.30	28
	Eggs	-	-	-	0.3	0.30	1
	Total	97.3	7.76	100	230.8	29.65	100
B.	Storebought goods		$	%		$	%
	Rice		21.40	11			
	Tinned fish		16.86	8			
	Tinned meat		5.98	3			
	Bread		13.04	7			
	Sugar		12.94	7			
	Flour		12.60	6			
	Soft drinks		4.72	2			
	Sweet biscuits		11.44	6			
	Hard biscuits		2.20	1			
	Prepared refreshments		8.10	4			
	Other foodstuffs and medicines		5.72	3			
	Cigarettes, tobacco, alcoholic drinks		4.00	2			
	Clothing		37.44	19			
	Other		12.16	6			
	Household goods		13.40	7			
	Tools and equipment		16.70	8			
	Copra					2.32	100
	Total		198.70	100		2.32	100

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Table 11:5

Inonda: mean weekly transactions of storebought goods during each recording period
($)

Item		Period I	Period II	Period III
Rice	Acquisition	2.56	2.39	1.89
	Disposal	0.62	0.39	0.61
Tinned fish/meat	A	2.00	1.48	2.09
	D	0.39	0.14	0.40
Bread	A	0.67	0.79	0.71
	D	0.16	0.12	0.08
Sugar	A	0.79	0.92	0.53
	D	0.17	-	0.04
Sweet biscuits	A	0.74	0.41	0.50
	D	0.17	-	0.05
Prepared 'snacks'	A	0.33	0.70	0.38
	D	-	0.03	0.03
Flour	A	0.04	2.24	-
	D	-	0.15	-
All storebought goods (incl. those not shown)	A	15.40	14.70	16.35
	D	1.67	1.82	2.99

438

acquisitions and disposals of subsistence products, whereas sweet potato accounts for 18 per cent and yam 10 per cent of acquisitions, and the same crops account for 12 per cent and 15 per cent respectively of disposals. Of the crops that may be stored, yams are clearly a dry season crop in terms of exchange as well as of harvesting (see Table 7:3), but Xanthosoma and sago are significant later in the year also. The level of transactions of banana also increases in the dry season.

Although taro is still harvested during the dry season, there is a clear need to supplement it with other foodstuffs. This need is met in several ways: firstly, by production of sago, yams and manioc and by collection of green leaves and shoots. (These last substitute for pitpit, which is harvested only in the early part of the year.) Secondly, Table 11:4 suggests that Inonda receives net 'imports' of crops such as taro and sweet potato at this time from other villages. Thirdly, flour and rice are purchased, in addition to considerable quantities received as gifts from outside the village, and the net acquisitions by the villagers amount to an average of 20 lbs of each commodity per week. All the households purchased either rice or flour and all acquired some through gifts. The fall in acquisitions of taro per week from period I to period II is 70 lbs,

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Although some individuals do tend to concentrate more time than others [433] on certain crops - as the widower in Inonda does with yams[1] - surpluses (and their counterpart, shortages) are frequently the [574] result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end [431] of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively [436] long-distance hawkers from both the coastal and mountain areas. At [178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence 221 sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A,[See Category 512, pp. 166-167--Analyst]

assistance in picking coffee, rather than to the traditional network of exchange. The relative significance of the different sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCCS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the entrepreneur account for 19 per cent of total village income. Some $43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the $16.50 received by cash croppers from wage earners within the District, $14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

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Table 11:21

Inonda: the geographical distribution of labour service transactions

Item	Acquisitions				Disposal			
	Labour, cash sector	Labour, subsistence sector	Total labour services		Labour, cash sector	Labour, subsistence sector	Total labour services	
Village	Percentage		hours	%	Percentage		hours	%
Inonda	54	56	350.7	56	54	83	351.2	80
Nahemo and Ajoro	-	1	7.5	1	-	1	4.0	1
Ijika	21	3	27.2	4	19	7	36.7	8
Mosou	-	1	7.2	1	-	3	10.5	2
Seua	22	29	179.5	28	-	-	-	-
Evundo	-	-	2.0	-	-	-	-	-
Popondetta	3	-	1.5	-	-	1	2.7	1
Ururu	-	1	8.0	1	-	-	-	-
Kendata	-	8	47.6	8	-	-	-	-
Girua block	-	-	-	-	21	4	27.5	6
Banga	-	-	-	-	-	-	3.0	1
Jonita	-	-	-	-	-	1	1.0	-
Urio	-	-	-	-	6	-	3.3	1
Total	100	99	631.2	99	100	100	439.9	100
Total hours	52.8	578.4			53.1	386.8		

although for some items the proportion derived from people or stores in Popondetta is considerably smaller. These latter include items widely-stocked in small village stores and items that circulate within the gift exchange system, such as rice, tinned fish and sweet biscuits. The prominence of Evundo as a source of non-traditional items was due to the opening of a store there in mid-1964 rather than to the links established with the road labourers' encampment. At both Ijika and the Girua block are trade stores where purchases were made, although gift exchanges were also effected with kin living there. Goods obtained from Saiho, Sangara and Ururu are exclusively gifts from kin in wage employment rather than purchases. As a result of the distribution of stores and of wage earning kin, over 55 per cent of the non-traditional goods acquired by Inonda people come from distances greater than five miles. Disposals by Inonda

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[TEXT CONTINUED ON PAGE 274]

431 people, however, are almost entirely in the gift exchange system and conform more closely to the pattern of disposals of garden and forest produce. They include the sale of copra to the co-operative society at Oro Bay.

437 (iv) Cash. As with storebought goods, most cash is derived [434] from Popondetta (see Table 11:24), largely in payments from administrative agencies for goods or labour. Over half that acquired from Inonda represents payments by the entrepreneur to those who worked on his contract. Similarly, acquisitions from Evundo and the Girua block are also in the form of payments, from employment by the construction company and a settler respectively. The money from Oro [43] Bay was from the sale of copra. Other cash is in the form of gifts, the main sources being villagers in Inonda and wage-earning kinsmen in Ururu, Popondetta, Saiho and Madang. Since expenditure is directed primarily to trade stores, the pattern of disposals of cash is very similar to that of acquisitions of non-traditional goods. Most goes to stores in Popondetta; disposals within Inonda include the payments to labour, purchases at the trade store and [65] gifts. Payments of tax to the Higaturu Local Government Council account for over one-tenth of all cash disposals. Transactions of significant sums of money are restricted to people or organisations

Table 11:24

Inonda: the geographical distribution of monetary transactions

	Acquisition		Disposal	
	Total $	Per cent	Total $	Per cent
Inonda	61.80	18	88.52	26
Ijika	3.10	1	9.10	3
Girua block	38.80	12	5.04	1
Hosou	4.94	1	5.60	2
Sewa	4.10	1	0.50	-
Evundo	17.20	5	28.06	8
Urio	-	-	5.92	2
Popondetta	169.40	50	152.30	45
Ururu	14.50	4	4.20	1
Jegerata	2.00	1	-	-
Saiho	4.00	1	-	-
Higaturu	-	-	38.00	11
Madang	12.00	4	-	-
Oro Bay	2.32	1	-	-
All other places*	3.20	1	3.46	1
Total	337.36	100	340.70	100

* Six in all for acquisitions; 8 in all for disposals.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Plate 11. Taro, pigmeat, areca, rice and tinned fish on display in Inonda prior to presentation to a Girua settler.

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Plate 12. Stalls at Popondetta market, where people from Inonda frequently sell their produce.

433 434 As shown in Table 13:2, returns vary greatly, with some of the most favourable activities being pursued only by the entrepreneur in Inonda - a man who profits greatly by his personal contacts with a number of expatriates. By far the highest returns are obtained from marketing pig within the village, but dictates of custom restrict the frequent practice of this. While 'establishment' costs - in the sense of rearing pigs, growing produce, seeking contracts and employment, etc. - have been disregarded in estimating these returns they are, at the present stage of development, very low and often 'hidden' by subsistence sector requirements. Pigs are reared and garden produce grown as a part of the subsistence routine and their marketing is largely incidental; the decision to market wild game may only be taken after a successful hunting expedition; and the entrepreneur is well-known to the Administration as a reliable and resourceful individual and is often approached first about contracts.

The proliferation of cash-producing activities suggests one of three possibilities: that any single source of income, such as cash cropping is by itself inadequate; that cash cropping is not considered the best source of income; that demand exceeds the income from any one source. While opportunities vary greatly from one individual to another, the question of choice between individual activities seldom arises since many occur so irregularly that they cannot be considered reliable sources of income.

Two main considerations appear to determine preferred means for the acquisition of cash: firstly, reliability of income, and, secondly, size of individual cash payments. Each bears some relationship to the criterion of returns to labour but distinctive elements are also incorporated. An established demand for cash implies the need for a regular income and, among the range of activities, only cash cropping and the marketing of subsistence produce can provide this for the majority of villagers. If establishment costs are taken into account returns from the latter are higher, while its complete adjustment to the agricultural routine [435] renders it a more suitable activity for the subsistence farmer. However, the value per unit weight of garden produce marketed at Saiho is, at 2c per lb, insufficient to elicit serious interest in Sivepe, while its perishability, relative to cash crops, is an added deterrent. The unit value of smoked fish and meat sold by the Inonda people at Popondetta market is much higher (20c and 10c per lb respectively) but there are likely to be social pressures operating against the too-frequent commercial exploitation of these village resources: an opposition somewhat similar (in terms of the [431] utilisation of a scarce resource for personal gain) to that voiced in Sivepe to the sale of domestic pigmeat. While such an attitude was never overt during 1964 it serves as a partial explanation for the fact that individuals often distributed game through the gift exchange nexus when they could have sold it at the market.

434 each Saturday morning doubled in the 18 months prior to this study
438 but still only about 15 families per week sent in produce for sale. Larger numbers of Yega attended on Saturdays following the fortnightly administration pay day than on the alternate Saturdays. Cash income obtained by Yega also more than doubled in the same period (from a weekly average of $1.35 per participating family in January 1963 to $2.80 per family in July 1964).

434 iii. Gifts from relatives in paid employment. In 1964 this was
431 the main source of cash income of most Yega villagers. Almost invariably the young men in paid employment sent monetary gifts home to their relatives in the village. A sample group of 18 such workers earning an average $610 per annum in cash or kind remitted an average of $90 per head per annum to their relatives in the villages.

434 iv. Gambling. As gambling is illegal, people were reluctant
525 to divulge details. Nevertheless, for some men gambling constituted an important source of income. The stakes in domestic games of 'Lucky' were usually betel nuts, but in games with outsiders always cash. Yega gamblers aimed particularly to relieve the workers on nearby plantations of their wages. On one observed occasion a Yega man won $86 in one night in such a game.

434 Sources of additional income for two sample groups are summarized in Table 3 below:

Table 3

Additional sources of cash income of Yega villagers during 1962

(431)

Classification	Personal effort	Gifts	Other*
Holders of cocoa blocks (sample of 25)	8	17	2
Non-holders of cocoa blocks (sample of 14)	8	9	Nil

* This includes savings and gambling (one informant in each). Some persons received income from two sources.

434 The holders of blocks received more gifts than non-holders of
431 blocks. The main reason for this is that most blockholders had sons or brothers of working age. Many of these worked in paid employment and, by making gifts to blockholders, were ensuring reciprocity of gifts in the future. Table 3 shows only gifts received by people living at home. Monetary gifts were rarely given by the village people but when the 'outside workers' returned for holidays in the village they were fed, boarded and feasted free.

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 361 [mm]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

The two latter contributions require further explanation. Of the 70 pounds brought by the wife's kin, 40 pounds were given by a parallel cousin whose husband recognized a distant relationship to the host, and who had worked as a mission teacher with him. The remaining 30 pounds were given by a clanswomen (whose exact relationship we did not determine) who lives in a village a few minutes' walk away, and who frequently visits the host's wife. This woman's husband recognizes a distant relationship to the host. Of that given by the daughter's husband's relatives, 60 pounds were contributed by a mother and daughter whose husband and father had spent his life as a work associate of the host in a neighbouring village. The remaining 20 pounds were brought by a clanswoman whose kinship link was reinforced by her residence in Inonda and her marriage to another relative of the host.

With the exception of taro supplied by the host and his wife jointly, all taro was brought by females. They were all kin of either the host, his wife or his eldest daughter's husband. But of the many relatives of these people resident in the vicinity, only five contributed. Three of these had work associations with the host and the other two had subsidiary kinship links to the wife as well as being coresident or nearly so, and enjoying frequent social interaction with the host and his wife.[1]

In former times, we were told, the man now engaged in paid work would have gone hunting to obtain meat for a feast, and would have constructed more elaborate shelters and platforms as well as erecting poles for the stacking of food contributions in such a way that they could be measured and compared. The role of the men in the preparation of this feast was negligible by comparison.

The host intended to kill a domestic pig for the feast but it escaped after being shot. A European contractor whose labourers had been invited to attend gave a pig which he had purchased for $30. The only other fresh meat was a large hornbill donated by the leader of the clan with which the eldest daughter's husband lived.[2] These two men have engaged in many exchanges over the past few years.

Of a total of $9.83 worth of store foods supplied, $2.60 worth were purchased by the host himself from his savings, $7.08 worth

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[1] In addition to the above food, the husband of a daughter of the host used the occasion to give a pig and vegetables to one of his wife's mother's clansmen who had not shared in the bride-wealth previously given by the husband for his wife. The gift was taken back to the donee clansman's village for distribution.

[2] This man does not live with his own clan, but with that of his classificatory brother's wife.

by the eldest daughter's husband from his current earnings, and $0.20 worth by the husband of another of the host's daughters from his current earnings. The only other foods contributed were three bunches of bananas and sixteen lengths of sugar cane by the host and four bunches of betel nut and one bundle of betel pepper by the eldest daughter's husband and his son. 5M4

It is apparent that the men's traditional role of supplying fresh meat is being replaced by an obligation to supply store foods. In addition, informants confirmed that the range of men participating in the contributions had decreased markedly. The reason for the large donation of store foods and betel nut by the eldest daughter's husband was that as his family had all been killed and his property destroyed in the Mt Lamington eruption, he had not paid any bride-wealth at the time of his marriage. 5M4 MB

A blackboard was displayed bearing a notice to the effect that all persons who were in receipt of wages were expected to contribute fifty cents and all others twenty cents. The host sat at the end of the food table and collected the cash (while a research assistant recorded the details of contributions and contributors). While most visitors expected as a matter of course to make some offering, they were not prepared for a fixed fee. There was therefore some delay and it was not until it was announced that those who did not have the full amount could contribute whatever they had that the people could be persuaded to make their contributions and partake of the food. Over half of those present had no money and consequently refrained from eating, though some close relatives who did not contribute were fed in the background. Several visitors privately expressed resentment at being asked for a money contribution.[1] 5M4 431 [126]

Contributions were received from 64 persons and ranged from eight cents to a dollar. Of a total of $12.15 received we were able to account for $10.88. Those who had brought food did not bring money with the exception of the labourers from the contractor's camp on whose behalf their employer had contributed a pig, and the husband of one of the host's daughters (who had given twenty cents worth of food) who gave ten cents in cash. Over half the money ($5.78) came from 31 persons who had no kinship ties with this village but were employees of European planters and of a contractor in the area or were indigenous settlers from a government resettlement scheme nearby. Of the balance, $2.10 was given by 15 relatives of the host from three different villages and

[1] The labourers and settlers had been specifically invited to attend, but I am not aware of the extent of invitations sent to other villages.

504 £2.90 by 16 relatives of the host's eldest daughter's husband (the
431 one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

504 The majority of the persons present attended because of their
108 residence in neighbouring communities and claimed no kinship links
602 with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

504 Transfers of property at this feast differed markedly from those
108 in feasts of the traditional type. Firstly, the food was contributed
431 by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

504 In this village many of the older people wear only loin cloths
292 made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

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[MM]

[1] See p.74.

241 is maintained today because, the Yega say, 423 it makes the work lighter if you have someone 613 to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 The granting of temporary rights to plant 423 a food crop is normal procedure. A right-[602] holder frequently grants such rights to affinal [614] kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega [431] land. He would simply give the right-holder a [426] gift or, if asked, would lend land in return.

226 The Yega are coastal people and expert [462] fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 the Yega to exist off their strip of coast; rights 423 to fish over these reefs are held by the clans 614 whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowa-[177] days is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 a) *The shifting-field cycle.* The average 242 length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P.8-B]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

[P.12-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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166 Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

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554 All wage-earners send a portion of their earnings to their older kinsmen who remain at [P.17-A]

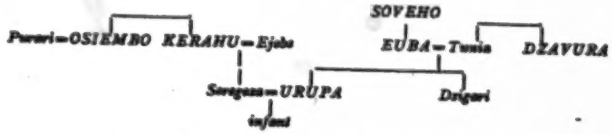
434 home in the villages. By doing this, they are
431 bringing about changes in the established
178 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was associated with the ceremonial distribution of goods: the recipients were placed under obligation to repay in similar kind at some future date, or else lose status. Among the Yega, the older recipients of gifts in cash or manufactured goods find it impossible to repay such gifts. As a result there has been an increase in the prestige of young or middle-aged, educated men. An instance of this trend was the
(66) almost unanimous election, in 1964, of such
(65) a person, recently returned from paid employment, as the Yega's first councillor on the Oro Bay Local Government Council.

(P.19-B)

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau kahare lalo lungenu

Ijoba gouda lalo lungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two 65? medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

[329] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinaly warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically. [431] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus, having accepted Australian gifts, the Orokaiva were naturally anxious to [423] find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call
[431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages.
[623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early
613 1950's, but interestingly enough he did not, like most of the early converts belong to the Jegase clan. Plant emblem groups (or lineages)
794 are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the
[224] pastor himself. Shortly before my arrival in Sivepe, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the lands of the
184 transport driver and one-time councillor, who played the role of lay-preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepe were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepe by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepe.

652 871 expected to levy. He wrote his Bishop that he would not collect the tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

971 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a major voluntary contribution in money, labour and materials, not with [431] the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's educatio differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle [558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could [829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have [191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

177 large extent to the bloodbath of these early days. It was he to whom,
65? above all others, the compulsive show of obedience Orokaiva make to white men can be attributed. It is therefore interesting to inquire what was the influence of Papuan culture on Monckton.

In order to show the atmosphere in which Monckton operated I shall quote a minor example (bypassing some cruder and more obvious passages of his books in which he describes shootings, floggings, tortures, etc.) where a sorcerer is brought before Monckton's court, accused of such crimes as causing a virgin of a distant tribe to produce still-born twins and causing the moon to alter its course and colour. Monckton advised the accused, so we are told, to plead "not guilty." "But I am guilty. I should not be much of a sorcerer if I could not do a little thing like that." In such cases, says Monckton (1922: 98). "The sorcerer would get a fine or a few months' imprisonment," Monckton explains that the New Guinea administration made witchcraft a crime punishable by law as a means of establishing respect for white man's law in the eyes of the Papuans.

[431] Monckton was very well aware that he was thus lending himself to a reciprocal transaction in which each side proffered the other a certain measure of prestige. The white man was most graciously given by the sorcerer a demonstration of his respect for the white man's law; in return Monckton (quite consciously, by his own admission) helped the sorcerer to "establish his reputation as a man capable of marvelous things, a man to be feared and conciliated with gifts" (ibid.: 99). On what basis, then, was the white man's law respected? It was on the principle of exchange which dominates and has always dominated Orokaiva social relations. (On this topic, see my doctoral dissertation.)

Monckton always bought his loyalties in this precise fashion. On one occasion (1934: Chapter 1) he invoked Papuan help to kill off a few troublesome marauders on the tacit understanding that the captors would be allowed to eat them. He appointed as his constabulary persons of high rank from various districts so that the Papuans would be afraid to kill the constables: their death might induce their own people to start a tribal war against the killers. In return the constables knew that their own villages would be quite safe from Monckton's bloodthirsty attentions. Furthermore, Monckton tells us that he was in the habit of making presents to his constables, paid for out of his own pocket, over and above whatever was supplied by the government. With these presents, he bought a kind of personal loyalty which was over and above that owed by the constables to their employing government. On one occasion his constabulary marched into Government House to protect Monckton while he was the guest of the governor.

Monckton admits that he made himself rather unpopular with the officials of Port Moresby. Neither the crudity of his methods nor the means by which he procured the special attachment of his praetorian guard were regarded as proper in a British officer. Some of his exploits,

177 the people. When the Japanese were gone he went back to his old village;
799 around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Hosou, Ajoro and Dobuduru.
[562] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are not regarded as an appropriate reward for missionary services rendered
[431] by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowl-
[754] edgeable about the holding of feasts and their magic and that he feared

CHAPTER X: Esprit de Corps

621 The problem of developing group consciousness in a new village,
731 created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepa in 1966, though on a much smaller scale. Sivepa, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial
[361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 In the daily presentations of food between residences, these
[431] families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange
[578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 On the other hand, the hazards were obvious when one looked
684 at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that instead of timeless constructs of primitive philosophers we are occupied with a series of historical events both before and after the eruption, all of which became signs much in the same way as the eruption; the explanation will take the form of the tracing of associations between these signs. There are, however, some stable principles governing these connections. We turn to these first.

I have argued elsewhere that the social structure of the Orokaiva is characterized by a weak patrilineality with small corporate groups but that exchange transactions between these groups are, in many respects, highly structured (Schwimmer 1970a, n.d.). These exchanges follow rules which are justified by an elaborate system of thought arising out of the principle that gift making is the source of social potency and exchange is the measure of that potency. Such a system, by its very nature, makes no assumptions about the permanency of social associations, as it is only the success of exchange transactions that allows associations (outside the small corporate groups) to endure. Decisions about the upkeep of particular associations are of necessity determined by criteria of allocation. According to Orokaiva ideas, associations go through alternating periods of positive reciprocity (friendship) and negative reciprocity (war). Whereas in Western thought permanence is considered normal and quarrels a deviation from the norm, the Orokaiva do not envisage either friendship or enmity as permanent states but rather as alternating temporary states.

The implication of this philosophy for social relations (and this includes Orokaiva-white relations) is that they never are what a Westerner would call "friendly" or "hostile." It would be more correct to say that at any given time they may be going through a positive (friendly) or negative (hostile) cycle. Movements from positive to negative cycles tend to be gradual, since in the Orokaiva view social relations tend to deteriorate constantly, little by little, until they become hostile. On the other hand, movements from negative to positive cycles tend to be highly dramatic and ritualized—usually through reconciliation feasts and gifts. In relations with Europeans, reconciliations are harder to effect since there is no commensality between the ethnic groups.

If it is natural for social relations to deteriorate constantly and gradually, it is still possible to decide that one will allow an association to deteriorate before one takes active steps to restore it. Such a choice is determined by many factors: intrinsic attraction

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that the European exchange partner did not have a great deal to offer the Orokaiva, because not even money was essential. Conversely, the fear of the trouble the white man might cause was not so great as one might suppose. Certainly, there were horrifying stories about what the white man might do if angered, but the Orokaiva had since learned some simple rules telling them how such anger could be most conveniently evaded.

Until World War II, the relationship between the Orokaiva and the government followed this general pattern almost entirely. The government made the regulations and the Orokaiva did the unavoidable minimum. World War II began to change the pattern of this partnership. Australian and American soldiers moved into the Northern District to drive out the Japanese. They camped in the bush, they shared their food with the Orokaiva, they accepted Orokaiva hospitality, they generously distributed what supplies they had to spare. The white soldier, unlike the civilian, lived in a style much closer to what the Orokaiva consider human. He laughed and joked in the presence of the Orokaiva; he put on no colonial pretense.

After the war, the Australian government changed its policy in the territory, suppressing corporal punishment of employees, emphasizing economic development in the villages, improving schooling, introducing local self-government on a limited scale (and later political representation in the House of Assembly), offering Papuans jobs of some responsibility, and discontinuing the type of village policing that made all reforms dependent on the enforcement of regulations. The village constables, whose job was in practice confined to reporting infractions of the regulations, were replaced by elected officials (local government councillors) who are indoctrinators rather than policemen. They harangue the people with a diffuse message covering a wide area of social and economic development. They seek to secure acceptance for new ideas, so that people will genuinely believe in the usefulness of changes they are making.

When I visited the Orokaiva in 1966–1967, I found a great deal of ideological discussion, the key concept being *iji eha* ('the new day, the new age')—a new way of life based on the economics of coffee growing and wage earning, the social amenities of improved villages, school education, Christianity, avoidance of violence, and, generally, cooperation with the mission and administration. I

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 bond is respected by both sides and utilized for purposes of mediation. The
628 friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted
621 to affinal bonds or lead to co-residence, in which case an entirely new pat-
572 tern arises. It is possible for migrants into a village to have no bonds other
[166] than those of hereditary friendship with their chosen hosts. But once co-residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

572 *Apa/eambo* and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds – for two generations senior to ego – but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

572 (a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs
431 in some ritual features from the hospitality shown to affines and to con-
574 sanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

host family only. If the guests do contribute, this happens behind the scenes so that the host still appears as the sole donor.

When the guest is an hereditary friend, the host supplies a pig and valuables (such as feathers, ornaments, and nowadays, also money), while other villagers openly present the vegetable foods; the visit is incomplete without such participation. However, the gifts are not presented when the guest arrives. First, he is fed vegetables and meat (this is *pondo* or feast; an ordinary meal contains no meat); he converses with his host and sleeps in the host's house. No mention is made of gifts until the moment of his departure. If he hears any plans of gift-giving, he would be expected to refuse the gifts. The pig is killed secretly, away from the village. At the moment of departure, the guest is confronted with his presents, which he can no longer refuse.

We note that the symbolism throughout is appropriate to the cooperative type of relationship: amicability is not conditional upon the host's prestations; the guest does not desire the host to part with his substance. The host does not give demonstratively but stealthily, emphasizing the intrinsic rather than the extrinsic benefits the partners get out of the relationship. But in the wife's sorrow over the loss of her pig (a metaphoric child; cf. Schwimmer, 1970b), a more complex phenomenon occurs: she does emphasize her loss, though inconspicuously (only a strip of cloth tells the story: she tears off a piece of her skirt and uses it to truss the pig to a stick).

Even without this touch, the departing guest knows that the gifts he has received include some of his host's most treasured possessions. Having been in the position of a departing guest, myself, I am perhaps able to understand how Orokaiva experience it. As I was leaving Sivepe, and after all formal leave-taking was over, an old man from another village came to offer me one of his most valuable birds of paradise which everyone knew to be a source of pride to him. As I was unable (and not expected) to give anything in return at this time, it was an irreplaceable loss. There was no expectation of future gain but only the expression of a bond. These are the symbols they live by; this is how a previous stranger is lodged in the centre of their social world. Thus, it is absurd to call such friendship peripheral. The old man's bird of paradise was anything but peripheral; it was his most prized possession (almost his only possession). It was, in fact, the magic by which the nature of the relationhip was transformed from a peripheral to a central one.

Certainly, such a relationship is largely free of kin obligations, almost as free as Burridge suggests with regard to the Tangu. Obligations are not wholly absent, even though they cannot be expressed in a kinship or economic idiom. The bond is based on feelings of attraction towards the personal qualities of an individual and it develops out of various types of shared experience. Unrelated males who are initiated together become *namei*. *Otavo* of all kinds (see section on Simbo, p. 65) may eventually become *namei*.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But recruitment to this status is not restricted to specific categories; any two people can become *namei*. These bonds provide some measure of control over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

(b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

Unfortunately, a male anthropologist cannot plumb the mysteries of this relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

If two unrelated young women of district A are *jao* and marry in villages B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

we find that taro resembles them in that taro gifts are ritual statements by which attitudes toward social relations are communicated. We may say, to use Mr. Sperber's terminology again, that in this respect they form a code structure. It will be shown that this code structure is again nonhierarchical, thus resembling coconut and areca. On the other hand, a statistical study of the behavior of exchange partners shows that, on the level of exchange structure, there are rules by which a hierarchy is unconsciously generated between households and between villages. A system which combines a hierarchical network with a nonhierarchical code might be described, in my terms, as political, though incompletely so.

Most taro produced by the Orokaiva (over 90% in the villages surveyed) is consumed directly by the producing household. Nonetheless taro is the most ubiquitous of all Orokaiva objects of exchange; most households give some of it away every day. It is also part of the conventional set of gifts that change hands on virtually every ceremonial occasion. The main purpose of such gifts is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. The ritual statements that may be made by means of taro gifts fall into two categories: raw taro, ritually given by men, tends to be part of a ceremony aimed at the establishment or restoration of social relations, whereas gifts of cooked taro, normally made by women, are part of the process of maintaining social relations of a certain degree of intimacy.

I shall base the following abbreviated analysis of taro symbolism on one myth. Of the several versions collected, I shall quote the fullest one, indicating variants where relevant. The name of the principal hero is usually given as Totoima, though this name does not appear in the version quoted. Williams has some references to the Totoima myth (see 1930:155, 158–159, 276), but these are not very illuminating. The following version was obtained from Samuel Jovareka, born at Kiorota and now a resident of Sivepe village:

> A husband slept with his wife. She became pregnant and gave birth to a small child. The husband came and asked:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

it may be given away, complete with tops, by a man to other men. We here see the same contrast which we met before between a metaphoric and a metonymic gift. The feminine gift, in this case, is metaphoric: she gives her own essence, which is taro, to the man. In return she receives meat, the man's essence; but we come to this later. The male gift of taro, raw and complete, is metonymic: he gives some part of his taro nature, conferred upon him by woman, to another man with whom he desires to establish or restore social relations.

The significance of taro, as part of the nature of the human male, is clarified in the myth by the opposition between the male twin and the man from Managalase. The Managalase is a neighboring mountain district where the main crop is yam, not taro, but where a variety of taro (called *pijama*) is also grown. It is not, however, grown in gardens but in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son: unlike Totoima, he recognizes the technology of domestication of taro, but he recognizes it inadequately, being mainly a hunter. Such, at least, is the view expressed in Orokaiva stories about the Managalase.

Taro, to the Orokaiva, is symbolic of strength; it is preferred to other staples because it builds stronger men, so it is believed. Taro is, moreover, the principal bulk gift displayed at feasts. Certainly, pigs are always given away at feasts, but in small quantities, and the size of the feasts is not principally measured by the amount of pig meat given away. It is by the quantity of taro that changes hands that the size of an Orokaiva feast is measured. A pole is placed in the center of the heap and measured. When taro is received at a return feast, the recipients take it back to their own village and lay it against the same pole. If the quantity is smaller, the other side has lost the competition. The strength of a village is measured by the amount of taro it can produce. The strength of a fighter or hunter is derived not so much from the amount of game he has previously killed; it is derived from the taro he has eaten. It is in this sense that taro, when consumed by man, is stronger than pig, though in the absence of this metabolism, pigs are stronger than taro.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Finally, it is significant that in the fighting between Orokaiva and Managalase, the former were most often the aggressors and the latter were the victims of cannibal raids, of inroads on their hunting territory, and so forth. Thus the Orokaiva regard themselves as stronger than the Managalase (certainly they are more numerous, as their fertile land can support a denser population) and the Orokaiva explain their greater strength by the abundance of their taro supplies. 824 539

While it is clear enough that there are no hierarchical implications in female taro gifts (they symbolize the symbiosis between the sexes), a kind of hierarchical ordering is apparent with regard to male taro gifts, inasmuch as the myth is concerned with a conflict between adjacent generations, where the father seeks to kill and is killed by the son. 824 431

It seems to me, however, that hierarchical ordering of this kind does not fall within Mr. Dumont's definition (1966:92), namely, that hierarchy is "un principe de gradation des éléments d'un ensemble par référence à l'ensemble." [3] This seems to exclude hierarchical ordering within a family, or corporate group, on the mere basis of age and generation. It does not altogether exclude the kind of stratification suggested in the myth as between hunters and gatherers (lowest tier), hunters and bush-clearing cultivators (middle tier), and garden cultivators (highest tier). Within the framework of Orokaiva society this is not a hierarchical relation between population groups but an evolutionary sequence with little reference to actual social relations. When the Orokaiva postulate some superiority over Managalase, this is no more than tribal rhetoric on their part. Nonetheless, on the level of rhetoric, we find hierarchical ordering of tribes according to their cultivation practices.

Taro, moreover, gives rise to hierarchy on the level of network structures. Taro has a special position in the Orokaiva exchange system in that it symbolizes commensality. Though, in terms of the myth, it is only a gift made by a woman to her husband, in practice cooked taro is given also to those households which a woman wishes to honor with a kind of pseudo-commensality. The taro is taken to the home of the recipient,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

either by the housewife who has cooked it or by one of her children. The quantity is usually about two kilograms, which constitutes a very hearty meal for one person. Thus taro gifts become, for the anthropologist, an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges invariably follow. The same cannot be said for any other object of mediation, not even pig meat (which is exchanged only in specific circumstances) or coconut and areca (which may be given to very casual acquaintances). The exchange network of cooked taro therefore coincides with the network of intimate association.

I have made a somewhat detailed, statistically oriented study of taro-exchange networks which, for lack of time, cannot be reported here. During twenty-eight days, between 31 January and 10 March 1967, I recorded taro gifts made by all households of Sivepe village. The number of gifts made and received averaged 2.5 daily per household, ranging from a minimum average of 1.3 to a maximum average of 4.1. At the same time notes were kept of social relations between the households involved: work relations, common journeys, different types of visits between households, conversational groups in various parts of the village. The social interaction records were compared with statistics showing the households to which each household had given taro during the period, and the frequency of those gifts. There was a close correspondence between frequency of taro gifts and intimacy of social relations. There were also a set of types of formal occasions when such gifts were thought especially appropriate, e.g., when the recipient household was entertaining outsiders, had a new baby, a death, had performed some specific service; or if the recipient was old, incapacitated, ill. Nobody made taro gifts to everyone in the village: in the twenty-eight days for which I kept tally, the number of such partnerships varied from three to fourteen out of twenty-two households surveyed, with an average of 8.5.

The taro-exchange partners were always the persons on whom one was most dependent in sentiment, in economic tasks, in political support. They would tend to take one's side in intravillage disputes. Taro gifts thus were a ritual statement in

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

which one household would express its desire for close association with another. I inquired to what extent the gifts were balanced. I found, as Sahlins already suggested in 1965, that little importance is attached to precise balance in food gifts. In more than half the households the total imbalance exceeded the proportion 60:40. On the other hand, I also found that extreme imbalance usually has a special explanation, often old age, or special burdens which might be only temporary. Informants, when asked, deny there is any obligation to make return gifts. Yet the statistics show a strong tendency toward the sending of taro gifts on the same day or the day after one has received them. The recipient will explain that he is under no obligation but likes to reciprocate.

Certainly this attitude is in accordance with the explanation I have given of this custom. The return gift should not be considered principally as an obligation but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of the gifts is closely connected with the question of how intimate each side wants the association to be. An increase in the frequency of the gifts means a desire for a more intimate association. If the recipient wishes to keep the association within certain limits, he may be slow in making a return gift. Unbalanced exchange occurred, for instance, with migrants from a neighboring village (Garombi) who gave more than they received and seemed to be constantly trying to build up new alliances. They were welcomed more warmly by some old residents than by others. If recipients, though fully capable of making equally frequent return gifts, reciprocate halfheartedly, the donor household tends to reduce the gifts to the level acceptable to its partner.

There are, therefore, limits which households set for the extensiveness of their taro-exchange network. These limits are determined less by economic considerations than by sociopolitical ones. There is a limit to the number of intimate social relationships that any individual can maintain. A choice exists, within any culture, between allocating relatively little time to a relatively large number of associates or maintaining a small number of privileged associates with whom contact is very fre-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the need for several intermediary links to pass from one point to some other points.

The Orokaiva are wary of relations with persons with whom they are not intimate. They do not like to make even simple requests of such persons but prefer to make the request through intermediaries who are intimate with both sides. In that case it is possible, if the request cannot be met, for both sides to pretend that it was never made. No hard words are spoken, nobody is overtly humiliated. There is a customary blank, expressionless style which is used by intermediaries for the transmitting of requests—symbolic gestures of neutrality. The mediator avoids the risk of endangering his own alliance while still making what effort he can to satisfy the party seeking the benefit. If he is successful, the beneficiary is to some extent indebted to him.

This tendency to work through intimates sets up hierarchies in which almost anyone may at some time or other be the star figure. The total network available to an individual through such hierarchies is rather large, as the twenty-two households in my sample, for instance, have easy access to a total of seventy-five villages. Under the ecological conditions of the Orokaiva, no principle of kinship solidarity alone would provide a network of that size.

The basic ritual statement by which the presence of such intimate links is demonstrated is the feminine taro gift. Cooked taro, therefore, mediates not only the exchange of intimate attachment, but also the exchange of access to *alter*'s private network of alliances. The hierarchy of the taro network is based on the intimacy existing between any two consecutive links in the chain. The structure is hierarchical in that at the one end there is a household requiring a benefit, at the other end there is a person able to give that benefit, while the intermediate links are all necessary for the access to that person.

These hierarchies are more complex structures than those arising in the coconut-areca network. The system not only has the "circuit pattern" described above but also is capable of generating at all times new hierarchies linking persons who were not previously linked at all. Whereas the coconut-areca network

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

corresponded to restricted exchange, the taro network corresponds to a complex system of generalized exchange. We find both these types of pattern in the Orokaiva marriage system; we find them again in the exchange of objects other than women.

To a large extent, these hierarchies are formed by free choice. Both sides are able to regulate the degree of intimacy by speeding up or slowing down the rate of taro gifts. While thus the taro network offers a good deal of opportunity for subtle *political* manipulation, one crucial criterion is missing from the taro network that is required in a political *system:* conflict is never expressed in terms of taro, except in one case, to which I shall refer below. The fact of not receiving a gift of cooked taro is never, by itself, a *casus belli,* but only a sign of coolness. It may signify no more than a development in a relationship from intimacy to mere amity. It is unlikely to cause anger, unless there are other sources of conflict at the same time.

Male taro gifts, occurring in the context of a feast, should according to the rules not be competitive in quantity. A visiting village expects to receive in return no more and no less than what it has given. If the other side gives more than it has received, this is regarded as an act of hostility. One cannot compare such an act to the potlatch behavior of the Indians or Polynesians, because it is a violation of the Orokaiva rules—a provocation that frequently ends in actual war. On the level of ideology, it is still valid to say that taro gifts can be used, as ritual statements, only to express pseudo-commensality, intimacy, and affection. A quite different rule says that any excessive return gift (whether of taro or something else) serves to express hostility. I shall return to this point elsewhere (Schwimmer, 1974).

CONCLUSION

The purpose of this essay will have been achieved if I have been able to show how objects, in such societies as the Orokaiva one, are "total phenomena," or, perhaps more accurately, multivalent phenomena. Certainly one understands little of the Orokaiva way of life if one does not perceive that a taro, for

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

instance, is not just a food, or an economic value, but also a kinsman, also a form of power, also a sacrament. 121 824 431

In a more theoretical vein, we may regard this essay as a corroboration of two remarkable essays by Marshall Sahlins (1968, 1970) in which he elucidated the philosophy of Marcel Mauss and the Maori concept of *hau*. With some modifications, required to fit Orokaiva rather than Maori thought, we can say that a gift object such as a taro has a certain potency which enables it to perform an otherwise impossible act, such as convert an enemy into a friend. During the first stage of the transaction, when the taro, identified with the *vegetable* form of Totoima, is offered up to the marauder (= enemy, guest), the host, likewise identified with the taro, parts with it irrevocably. It is then snatched by the guest, who eats it and thus enters into communion with the host, now identified with Totoima. The force that compels the making of a return gift becomes effective by the act of communion. As Sahlins rightly argued, the transaction becomes meaningful only if it is considered within the context of the state of war which, in the absence of this sacrament, would prevail between the partners.

A question of some difficulty is the relation between the Totoima myth and the taro, coconut and areca rituals. I have proceeded in this essay without distinguishing what is conventionally known as mythology from what is conventionally known as ritual. Thus a key element in the *mythological* analysis was the fact that there are ritual ways of giving away raw and cooked taro. In this respect I followed a distinction which was recently (1971:598) proposed by Lévi-Strauss, namely, between "explicit" and "implicit" mythology. He argues that many mythical representations exist only in the state of notes, sketches, or fragments scattered in glosses and exegeses which appear in the context of ritual. He describes such representations, in other words, the cognitive aspect of ritual, as "implicit mythology." 121

Lévi-Strauss would thus restrict rather narrowly the scope of the ritual level to what would appear to be systems of paralinguistic signs in a sacred (or at least the opposite of everyday) context. By imposing this restriction, Lévi-Strauss pointed at a weakness in much writing about ritual (including the present

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

NOTES

101 114 1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

114 128 2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

824 431 3. "A principle of gradation by which elements are related to the whole of which they form part."

121 4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider 366 range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe [432] people in our sample sell vegetables there regularly but seldom [438] buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

[77] We could not complete this introductory sketch of local 648 facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had seen close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the [121] Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting [161] of local men for subsequent phases of the war elsewhere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

252 [461] gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 [262] (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 512 [432] (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20.4

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A,[See Category 435, p.20--Analyst]

461 [464] Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 177 [797] (iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] [651] The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

8: Waddell & Krinks 8-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Saiho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timumu clan cut it up and sold it, giving all the proceeds to Linton's mother.
[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

472 Linton faced a similar conflict between custom and cash in his hunting activities. As
224 the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would
[571] hunt on their behalf if they provided the cartridges and a cash payment of 10c with each cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 82.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-35. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Sasembata clinic.

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

(b) Monetary sector

432 438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivepe and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Awala to receive payment for coffee previously delivered.

[434] (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.[1]

[1] But see p.203.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Table 10:6

Sivepe: the type and volume of labour services transacted during each recording period
(hours)

Activity	Period I hrs	I %	II hrs	II %	III hrs	III %
1. Subsistence						
Clearing	67.8	8	61.8	7	35.9	7
Taro - plant	21.8	3	39.6	5	16.9	3
maintain	-	-	16.7	2	14.8	3
harvest	10.6	1	17.2	2	-	-
Yam - harvest	128.9	15	-	-	90.3	17
Coconuts - harvest	3.9	-	17.2	2	16.4	3
Sago-making	-	-	489.2	56	30.6	6
Hunting	-	-	36.5	4	31.2	6
Construction	328.1	38	152.9	17	21.6	4
Pig-carrying, butchering, etc.	32.2	4	8.0	1	136.2	26
Food-carrying	-	-	-	-	76.6	15
Miscellaneous	2.6	-	19.5	2	57.7	11
Sub-total: subsistence	595.9	69	859.6	98	528.2	101
2. Cash						
Coffee - harvest	54.4	8	-	-	-	-
process	205.1	24	3.3	-	-	-
Rubber - market	8.0	<1	-	-	-	-
Errand-running	6.3	<1	16.0	2	-	-
Sub-total: cash	273.8	32	19.3	2	-	-
Total	869.7	101	878.9	100	528.2	101

The exchange of labour services in the cash sector is significant only during period I. Associated almost entirely with the harvesting and processing of coffee, in themselves strictly seasonal activities, they account for 32 per cent of transactions, while, as a single activity, coffee processing is exceeded only by construction in the volume of labour services utilised. On account of the urgency associated with the processing of coffee, the circumstances in which assistance is rendered are essentially the same as for subsistence activities.

432 [434]

(iii) Cash crops. All sales of coffee were restricted to period II (following intensive production during the latter part of period I) when a mean weekly income of $9.72 was derived from them. Rubber sales were made in periods I and III when mean weekly returns of 33c and $1.11 respectively were obtained. In fact the pattern

derived from the data is in part misleading since sales of coffee were made periodically from June through to September while rubber can be, and is, sold at any time of the year. A feature of both crops is, however, that substantial quantities are harvested, processed and stored prior to entry into the exchange system. Unlike most subsistence crops both are capable of storage while, in the case of coffee, the infrequent opportunities for sale make this a necessity. Over the survey three sales of rubber and five of coffee were recorded.

(iv) Storebought goods (Table 10:7 and Fig.10:3). The distinct periodicity apparent in the movement of the major storebought goods is connected with both seasonal factors and the receipt of parcels from kinsmen in wage employment. The consumption of these goods can be variously judged, according to the time of year, as supplementing the subsistence diet or as being surplus to requirements. During period I, with little feasting and an abundance of garden produce (plus a shortage of available cash), only a small quantity of food is purchased and none circulated. The acquisition of rice is at a peak during period II to compensate for the shortage of starches in the subsistence sector; yet even at this time consumption amounts to only about 1 lb of white rice per adult per week. Most is purchased in 1 lb or 2 lb lots from local trade stores, although on one occasion (in week 16) a 56 lb bag was purchased. Most conspicuous consumption and exchange takes place during period III: tinned meat and fish which are frequently consumed with the staple foods exceed rice in the value of exchanges, but acquisitions of them only amount to about 0.5 lb per adult per week.

The climax in the circulation of tobacco and clothing during period II reflects the receipt of two gift parcels by sample members, with goods to an estimated value of $65. In the case of cartridges the increased circulation during the dry season was associated with improved hunting opportunities and, in connection with them, the quasi-entrepreneurial activities of one sample member.[1]

The manner in which storebought goods are circulated is similar to that of subsistence produce in that there is little storage or stock held. Because the utilisation of these goods is related primarily to specific circumstances, such as the availability of cash, receipt of gift parcels and feast requirements, the pattern of exchange over time assumes a highly irregular form which, to a considerable extent, obscures seasonal variations. It should be noted, however, that this form closely parallels that of the circulation of subsistence produce (see Fig.10:2).

A,[See Category 438, p. 193--Analysis]

[1] See p.119.

439 Discounting the effects of the researchers' presence, there is
431 a considerable excess of acquisitions over disposals. This largely reflects the continued participation in the gift exchange system of villagers' kin who are in close contact with the monetary sector as wage earners or settlers (see Table 11:9).[A] The contributions of such people are particularly marked in the case of rice and clothing, which are, in terms of value, the most important items of storebought produce entering the gift exchange system. As well as rice, tinned fish, bread, trade tobacco and several lesser food items all enter into the exchange system occasionally. They are invariably given in small quantities, sometimes in the daily food transfers and sometimes as contributions to a feast or party.

435 (b) Monetary sector

432 Table 11:2 shows the total values of items acquired and disposed in exchanges involving an immediate return of cash. Purchases of subsistence produce are insignificant compared with the amounts acquired through gift exchange and they are usually made to fulfil an urgent need, such as feast contributions. Areca nuts, however, are bought occasionally. They are mostly obtained in the Popondetta market, whereas fish and game are purchased from hawkers. Some garden produce was sold to road construction workers early in the survey, but the main sales of subsistence produce were made in Popondetta market during periods II and III and comprised mostly fish and smoked meat from hunted animals. The Inonda people acquire almost four times as much cash from sales as they spend on purchases of subsistence produce.

439 In total, subsistence produce accounts for only a small proportion of monetary exchanges, which are concerned mainly with storebought goods. The total value of purchases of such goods is almost $200. As with gift exchange, clothing and rice are the most important items, with certain other foodstuffs - tinned fish, bread, sugar, biscuits and flour - also accounting for significant proportions. Apart from food and clothing, the main items purchased comprise household goods and tools and equipment for work.

[438] Apart from goods sold through the medium of the trade store,[1] copra was the only non-traditional commodity sold during the 26 weeks of the recording periods. Some coffee was, however, sold in the weeks intervening between the three periods.[2]

439 The excess of acquisitions over disposals of storebought foods
431 is evidence of the comparatively slight degree to which they enter into the gift exchange system, with the exception of rice and tinned

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[1] For details of the operation of the trade store, see p.255. B A

[2] See p.257.

A,[See Category 592, p.247--Analyst] B,[See Category 444, p.235--Analyst]

437 (c) Cash

Table 11:3 shows that the Inonda people disposed of slightly more cash than they received during the survey period, but when transactions with the researchers are excluded the figures are in almost exact balance. No attempt was made at the beginning of the survey to record cash-in-hand and savings, so no detailed balance sheet can be presented.

Table 11:3

Inonda: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total of cash	337.38	340.70
Including:		
Savings bank transfers	18.00	10.00
Transactions with researchers	6.60	9.94

432 Seasonal variations in the exchange patterns

In presenting the seasonal variations in exchange patterns (and in all subsequent analyses), transactions in the two systems of gift and monetary exchange have been amalgamated. The effect of this amalgamation is greater for non-traditional than for most subsistence products. Thus, the Inonda people purchased rice worth $21.40 during the survey. Of the $12.94 worth of rice which individuals disposed of in gifts, $8.94 went to other Inonda people (Table 11:24)[A] and this forms only 16 per cent of total acquisitions of rice. For non-traditional items as a group, gifts received by the villagers from each other amount to only 7 per cent of the total value of acquisitions.

438 (i) Subsistence produce and storebought goods. Tables 11:4 and 11:5 show the seasonal variations in the exchange patterns by presenting the mean weekly amounts of various items acquired and disposed for each of the recording periods. The composition of the pattern may vary considerably from week to week during any season (see Figs.11:1 and 11:2). Thus, pigmeat formed 43 per cent (263 lbs) of acquisitions of subsistence items in week 4, but only 3 per cent (16 lbs) in week 6. Taro formed 32 per cent (191 lbs) and 65 per cent (349 lbs) respectively in the same weeks. However, the differences between the seasons as a whole have greater significance than intra-seasonal variations.

A. [i.e., Table 11:17; see Category 482, p. 285--Analyn]

437 221 The major part is received from Inonda people but a significant proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above[1] between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

434 (iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors 432 are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

[1] Page 235.

In the same way, there appears to be little relationship between the levels of transactions in most categories and either the rank of household heads or the total area cultivated by households. Where possibly significant differences in the rates of acquisitions and disposals appear, they are mostly explainable in terms of the various factors mentioned above. However, as regards rank, it is striking that the leading man's household is first in its rate of acquisition of most items, though only second for taro and pigmeat. It leads in acquisitions of both cash and subsistence sector services and is second in its rate of disposals of taro, banana, pigmeat and subsistence services.

It appears, then, that high status confers both material responsibilities and benefits. The main advantage accruing to the entrepreneur seems to be that he needs to spend less time than others in gardening and the time thus saved is directed into cash-producing activities.[1] This consideration applies only to the leading man and transactions according to the other rankings do not fall into a noticeable order.

(b) The expenditure of cash

Table 11:10 shows the pattern of purchases by each household during each recording period and over the whole survey. While there are considerable differences between households in the total value of purchases and a wide range in the proportion of cash income devoted to commodity purchases, there is less difference in the actual composition of the expenditure patterns (see Table 11:11).

For all but one household (which has a total expenditure below $3), food and stimulants account for over half of the purchases. Rice forms between 7 and 16 per cent of the total of all except the Jego'undi household, the proportion varying little over the survey. Flour on the other hand, was bought only during period II, when it formed almost one-quarter of all purchases and the proportions of tinned meat and fish in particular were reduced. The proportion formed by clothing and personal goods is also reduced at this time. All households, except the widow's, purchase flour, the amount bearing no relation to income.

None of the households containing the older people (18, 19 and 24) bought clothing, while only one (24) bought any other personal goods or tools and equipment. Apart from these, the other non-cash cropping households (20 and 22) also spend small proportions on these categories and on household goods compared with the proportions of expenditure allocated by the cash cropping households (16, 17, 21 and 23). Clothing accounts for one-quarter of the expenditure of three of the latter households.

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[1] See pp.161-2.

the construction contract. Most of the rest was exchanged as gifts or loans. Nine dollars was received from settlers as wages, the rest as gifts or loans. Most of the money received from wage earners was in the form of gifts from kin or friends, but a small amount was acquired early in the survey by the sale of coconuts and bananas to road-workers. Gambling winnings accounted for half the money received from settlers, and wages a further 25 per cent. A total of $12 was received by two people in remittances from a kinsman working in Madang. Acquisitions of cash from organisations are mostly in the form of payments by the Administration for goods and contracts, wages from the road-construction company and receipts from marketing, while disposals consist mostly of payments to trade stores and council tax.

In summary, it may be said that the bulk of exchanges of subsistence produce are with other villagers, except for sales of certain items at market and generally small exchanges with settlers retaining firm links with their village-based kin. Transactions of cash and storebought items are largely confined to organisations, other villagers and wage earners in the Popondetta sub-district. Labour services are almost wholly with other villagers, apart from a little assistance given to settlers.

The geographical dimensions of exchange (see Maps 2 and 5)[A]

(i) Subsistence produce. Tables 11:19-24 show the locations of partners (whether people or organisations) with whom Inonda people engaged in transactions during the survey. Most are villages, but they also include plantations, settlement blocks, mission stations and isolated trade stores. Tables 11:19 and 11:20 present the information for transactions of subsistence produce and reveal that almost two-thirds of acquisitions come from within the village itself and a further 25 per cent from people living within a radius of two miles. Seventy-one per cent of the disposals are to Inonda villagers and a further 18 per cent to people within two miles' radius. People or organisations (particularly the market) at a distance of five miles or more account for 11 per cent of both acquisitions and disposals. The distribution reflects primarily the closeness of contacts with kin, most of whom (apart from affines) live within two miles of the village at Ajoro (which moved its site during the survey and changed its name to Hahemo), Ijika, Mosou and the Girua settlement block. The relationship with the road construction workers' camp at Evundo followed the marriage of an Inonda girl to a New Guinean labourer. Links with places at a greater distance are also almost exclusively based on kinship. Several households have consanguineal ties with Sewa and Urio villages; two households in particular maintain close contacts with relatives in Ururu, Popondetta and Hohorita and another household with the wife's kin at Sangara plantation and in Kendata village

[TEXT CONTINUED ON PAGE 270]

A. [See Category 102, pp. 8, 52--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

474 443 438 purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

[432] Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about [521] prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

474 438 511 An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

[262] [493] [412] The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

[291] Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

474 443 [366] Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

Alienated land

432 The only alienated land in the Inonda area is a mission lease of five acres close to the village. It was purchased by the government for the sum of £5 and leased to the Anglican Mission for a school site.(1) The purchase money was paid to the then head of the Andiriha sub-clan but it is said that he received it in his capacity as leader of the lineage which had occupied this land (or as successor to the head of the extinct Paru lineage). The money was not shared. The main Popondetta-Oro Bay Road runs through Inonda, but the actual purchase of the land by the Crown has not yet been completed.

Transmission of land rights

425 Examples have been given of the transfer of land rights between clans (pages 14-16, 21-23) and of the succession to rights of a lineage which died out (page 26). Within the lineage the ideal pattern of inheritance of land rights by individuals 428 613 is patrilineal. The sons often hold rights jointly, though in some instances the lands have been divided between sons. As the number of resident adult males in any lineage does not seem to have exceeded three either in the present or the remembered past, joint rightholding has not occasioned undue difficulty. Although it is customary for the rightholder who is senior by birth to act as spokesman for the rightholding group, he does not appear to hold any superior rights to his co-parceners. While the patrilineal pattern predominates it is modified by factors of residence, family size, adoption, availability of land, and matrilateral and affinal connections.

The people traced the inheritance of proprietary rights to twenty-two out of thirty-seven blocks of land by direct patrilineal descent from five initial rightholders. It is appreciated that deviant relationships (adoptions, illegitimacies, refugees, etc.) are often forgotten, particularly in earlier generations, and memory assimilates the realities to the ideal pattern. It is therefore possible that inheritance was not so direct in fact.

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(1) It is not at present in use as the school was shifted several years ago to Hohota.

472 554 153 marketing or the more intricate techniques of production. It does suggest, however, that they have a sufficiently clear conception of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 423 [428] [472] Most Orokaiva men established their cash crops on customary land to which they have acquired rights by inheritance from their fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 423 472 A had cleared bush land and planted coffee at Garara where his close kin had been permitted to resettle in the late 1920s. Though the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for registration of his land under the Land (Tenure Conversion) Ordinance 1963. [656]

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation. [656]

[432] C has rights to hundreds of acres of customary lands. For his cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

8: Waddell & Krinks OJ23 Orokaiva OJ23

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[Specific data on the relative importance of various productive activities in terms of the amount of time spent performing them have been filed in Category 461.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/5 (*continued*)

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Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

177 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of produc-
511 tion.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

177 Many significant changes have occurred in Orokaiva society since European
[241] contact. The introduction of cash cropping has made the Orokaiva, to some
[437] extent, into a peasantry, depending to a limited degree on monetised marketing.
[167] Furthermore, there has been a large amount of labour migration, mostly by male
[433] workers whose families stay behind in villages. Even in the villages, technological
[657] innovations have been influential in raising productivity and improving standards
of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by
[797] Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

829 These changes have profound implications for Orokaiva political philosophy.
177 As we have seen, the Orokaiva recognised the importance of Hobbes' question:
657 how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

436 The effect of pressure on the exchange system is evident in many spheres. In
437 the economic sphere, the Orokaiva still carry on most of their non-monetary
431 transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4. 10. 1898 (quoted in Healy 1962 : 84).

quantities in some areas.(1)

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After the turn of the century less emphasis was given to the policy of expanding indigenous plantings of cash crops and instead Papuans were persuaded to work as labour on European plantations. In 1906 the Lieutenant-Governor stated that not only was staff inadequate to enforce the 1894 regulation, but that where it was enforced the resultant income attracted traders whom he felt to be a bad influence on the Papuan people. Employment on European plantations, on the other hand, was considered to be beneficial.(2) This policy remained until after the first world war, though some Resident Magistrates also applied the regulations in order to extend native plantings.

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(1) For a more detailed study of the application of these regulations see Miles 1956 : 319-23.

(2) Territory of Papua Annual Report (hereafter abbreviated to P.A.R.) 1905-6 : 9.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

[435] Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound. (1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places where a smaller labour force was working an equally large [466] area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

Table 1

Production of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for ten years 1931 - 40[1]

Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Total	Yearly average
Weight (lbs)	9,630	22,652	67,470	60,645	61,425	123,000	127,000	171,595	187,300	163,319	994,036	99,404
Payout[2]	170	426	828	558	642	1,280	1,425	1,527	1,863	2,102	10,821	1,082
Pence per lb[3]	4.2	4.5	2.9	2.2	2.5	2.5	2.7	2.1	2.4	3.1		2 6

(1) Derived from Territory of Papua reports 1932 - 41.

(2) Net payment to producers in £ Australian.

(3) Calculated to the nearest tenth of a penny.

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Table 2

Output per acre of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for five years 1936 - 40[1]

Year	1936	1937	1938	1939	1940	Total	Yearly average
Acreage	189	218	242	242	242		226.6
Total output (lbs)	123,000	127,000	171,595	187,300	163,319	772,214	154,443
Output per acre (lbs)	651	582	709	774	675		681

(1) Derived from Territory of Papua reports 1936 - 41.
Acreages for the years 1931-5 are not available.

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the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce. 465

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low, (1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success. 433 241 731 433 241 [133] 433 241

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P. A. R. 1949-50 : 17 show that 40,160 man-hours were worked on the 56 acres of coffee then in production and that £767. 12. 3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked. [435] [465]

Table 3

Coffee production in Papua 1939-63[1]

1938-39	112	tons	(Of which 84 tons came from Orokaiva native plantations)
1939-40	77	tons	(Marketing and supervision affected by war)
1940-41	69	tons	(Marketing and supervision affected by war)
1941-42	Nil		(Japanese occupation)
1942-43	Nil		(Japanese occupation)
1943-44	1	ton	(Australian military occupation)
1944-45	6	tons	(First attempt to revive scheme)
1945-46	20	tons	(First attempt to revive scheme)
1946-47	21	tons	(First attempt to revive scheme)
1947-48	12	tons	
1948-49	19	tons	
1949-50	24	tons	(Second attempt to revive scheme)
1950-51	13	cwt.	(Owing to Mt. Lamington eruption)
1951-52	½	ton	(Owing to Mt. Lamington eruption)
1952-53	1½	tons	(Owing to Mt. Lamington eruption)
1953-54	2½	tons	
1954-55	4	tons	(Third attempt to revive scheme)
1955-56	5	tons	(Third attempt to revive scheme)
1956-57	11	tons	
1957-58	7	tons	
1958-59	17	tons	(Includes first exports of coffee from individual plots sponsored by agricultural extension on land registered under Higaturu Council land registration scheme)
1959-60	24½	tons	(Including 7 tons from indigenous producers in Northern District)
1960-61	30	tons	(Including 24½ tons from indigenous producers in Northern District)
1961-62	35	tons	(Including 26 tons from indigenous producers in Northern District)
1962-63	49(?)	tons	(Including 41 tons from indigenous producers in Northern District)

(1) These figures had to be derived from a variety of sources, for the Annual Reports for Papua do not include exports made via Lae in New Guinea. They must be taken as approximate only.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. [435] Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). [462] For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. [464] [578] Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. [433] [434] No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots.

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. [578] This system

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. [489] As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning.

operatives they had given them the key to European prosperity. 461 [197]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

Conclusions

423 24 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 [614] Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and [461] strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

241 614 [592] We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A. [See Category 423, pp. 10, 25--Analyst]

241 65 [466] [625] [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i. e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

agricultural techniques of cash cropping and to regular patterns of work. It is true that most of the individual plantings of coffee since 1956 were made with seeds taken from the old community blocks where the techniques of coffee husbandry had been learned, but it was there also that the people had acquired their distaste for cash cropping.

The fact that all attempts at developing communal cash cropping among the Orokaiva have failed does not necessarily mean that communal planting is never practicable. What it does indicate however, is that to be successful, communal farming like any other farming system, must be coupled with appropriate organizational structures, sanctions and incentives as well as with extension, processing and marketing facilities.(1)

(1) Individual small-holdings do not of themselves lead to higher output. Since 1956, the nine Asigi villages which participated in the Ongoho community block have been encouraged to plant individual cash crop gardens. To date only 33 gardens have been planted (all of coffee). They cover only about 9 acres of land and contain 4,209 trees. Most are little better tended than the community block and fifteen are completely abandoned. Low price, distance to the market and lack of extension services seem to be responsible.

433 The C.S.I.R.O. (1954:12) reported that a wide range of annual and perennial crops which will grow at altitudes up to approximately 1,500 ft and do not require a marked dry season could be grown successfully. The report commented that the whole land system is a very good agricultural area and that this is reflected in the relatively dense population,

> a factor which under the present system of native agriculture will influence the extension of European agriculture. The potentialities of the area, however, far exceed the present land use, which means there is scope in this area for the successful application of extension work directed to the improvement of native agriculture and horticulture.

137 The natural vegetation of the area is a rainforest climax (Pometia pinnata-chisocheton sp. Alliance), of which very little remains. A belt of primary and secondary rainforest separates the settlements on the mountain slopes from their northern neighbours but the area south of this belt is mostly covered with more recent secondary growth in various stages of regeneration after cultivation. Isolated patches of 'kunai' grass occur (mainly Saccharum spontaneium, with some Ropbelia, Imperata spp.)[1] but their area is insignificant by comparison with the grasslands found on the Orokaiva plains.

b. The cultivation cycle

132 Over a period of 8 years the average monthly rainfall has ranged from 9.6, 7.9 and 8.2 inches in June, July and August (when rain falls about 15 days per month) to 20.9, 16.8 and 17 inches in December, January and February (with 22 wet days per month). The coefficient of seasonal variation used by Brookfield and Brown (1963:20) indicates only slight seasonal variability in the area.[2] An occasional brief drought is possible at any time, but with good soil, and no marked dry season, conditions for the growth of subsistence crops are usually favourable throughout the year and new gardens can be made as needed.[3]

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[1] District Agricultural Officer: personal communication.

[2] The coefficient of seasonal variation was 0.30. This measure is obtained by calculating from rainfall figures the standard deviation of monthly means from the mean of the monthly means and then dividing the standard deviation by the mean of the monthly means.

[3] We found no effects in this area of the rainshadow zone referred to by Keesing, 1951:6.

241 There is, however, a slight seasonal variation in the rate of agricultural activity. There is no correlation between the various phases of gardening activity and the seasonal variations in weather conditions, such as is sometimes found among shifting cultivators,[1] but the anticipated climate may determine the extent of new cultivation carried out at a particular time. More new gardens are made about the start of the season of heavier rains than at any other specific time of the year (cf. Williams 1930:144).

Decisions as to the type of garden work to be undertaken in the immediate future take account of suitability of current weather conditions. For instance, most villagers took the opportunity offered by a long unseasonal dry spell during the last weeks of our survey, at the time which would normally have been the height of the wet season, to make extensive clearings for new gardens to ensure a more continuous supply of food.

The natural high fertility of the ash-agglomerate slopes of the volcano is maintained under the system of short-fallow shifting agriculture. Gardens are small, scattered and irregular in shape. Usually each area is worked with varying intensity for only 18 months. General seasonal conditions do not closely define this period. There is minimal rotation of crops; only single plantings of taro are made and this crop covers over 90 per cent of areas under cultivation.

[433] Crops mature quickly but weed infestation and leaching result in a more rapid decline in yields under cropping than is found in highland areas. After one crop, pests and diseases become established and reduce the yields of any further immediate plantings. It is therefore essential to rely more on extending new clearings than on the intensive use of a few elaborately prepared garden areas.

The decision to cultivate a new area and the choice of a site rests with each household. Once a garden site is chosen, the secondary growth is cleared by the members of the household, using axes and bushknives. The undergrowth is cut first; trees are then felled at shoulder level and the stumps are left to provide support for yams and sugar. The branches are removed from the felled trees and the trunks are used later for fences, garden boundary marks, building materials or firewood. Undergrowth is left to dry for about a week and then burnt. Once this is done, edible pitpit (Saccharum edule) and bananas are planted at random over the cleared area. Sugar is planted near the tree stumps so that it may be tied up to prevent lodging. It is thus less susceptibe to

[1] Conklin 1954; Lawrence 1955:5; Vicary 1960:182.

249 stood untouched for about 20 years. In 1944 Humphries (1944:4)
657 reported that 'the trees grew to maturity with very litte attention from the natives and today they are being tapped for the first time'.

[434] In 1941 an agreement under the Transactions with Natives Ordinance (1893-1935) was made between a European planter recently arrived in the area and the villages with rubber stands, whereby he obtained exclusive rights to tap, collect and dispose of the produce of all the trees, while from 6 per cent to 12 per cent (according to ruling market prices) of the gross sum obtained by the lessee was to be paid to the owners every 6 months; in general this meant that the owners received 1 penny to 3 pence per pound. The contract was to extend for 5 years and the lessee was to have the option of renewing it for a further period of 5 years.

The arrangement became effective in 1941 but was interrupted by the Japanese invasion of the Northern District. In 1943 A.N.G.A.U.[1] authorized the lessee to return to restart production from the trees. Mann (1954:35) says that

> during 1944, under the supervision of the rubber division of the Production Control Board, tapping of some 250 acres
● [433] of those smallholdings was organized. During 1945 production was over one hundred thousand pounds dry rubber, indicating average yields of about four hundred pounds per acre.

249 Various estimates have been made over the last 20 years as to
433 the size and number of the rubber stands in the area. Mann's
311 figure of 250 acres contrasts with the lessee's estimate of 110 acres,[2] and with Humphries' assessment of about 80 acres. There were 95 stands with a total of 7,721 trees listed in the 1941 agreement but during 1943-5 a further 42 stands were added so that most of the available stands were then included in the scheme.[3] In 1951 Belshaw claimed that there were roughly 6,000 rubber trees in the 'Periho' tribal area within what was formerly the Kokoda District and another estimate about the same time put the number of trees in this wider area at 10,000. The annual report of 1959 stated that 26,000 trees 'in the Awala area' were tappable. A

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1 The Australian New Guinea Administrative Unit.

2 Assuming this estimate and the figure of over 100,000 pounds for 1945 production to be accurate, we must conclude that the average yields were more than twice those given by Mann.

3 It was reported by patrol staff that 'nearly all' the rubber stands were being worked from Awala in August-September 1943.

recent agricultural census listed 55 stands with 13,700 trees in the Saiho Census Division (which coincides roughly with the 'Periho' area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

The agreement between the lessee and the villagers was modified in 2 ways after the war. When the scheme was resumed in 1943 the Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

Until 1946 local villagers were employed by the lessee to tap their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

The Village Constables had been responsible for seeing that the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

249 177 A new marketing scheme was devised after 1946. Any villagers who wished to tap their stands were provided with a tapping gouge and spout, anti-coagulate, treeseal and latex bucket by the same European planter. The tapper brought latex to the factory, was [434] given a receipt and paid at the end of the week according to the weight of the dry rubber of the latex brought in. This system brought about a decline in tapping standards resulting in lower net cash returns for the villagers and seems to have been part of the background to their lack of enthusiasm for the lease noted by patrol staff in 1948.

433 249 In mid-1949 a report from the Popondetta District Office stated that all privately owned rubber areas were on the verge of closing down; production costs were high and market prices had fallen considerably.[1] The advent of the 'price-boom' later, caused by the Korean war, coincided with the eruption of Mt Lamington and the evacuation of the villages, and consequent cessation of production.

[435] By 1954 when attempts to organize systematic production were again resumed the market price had dropped to 5/6 d. per pound; the planter proposed to issue daily chits for latex bought and to pay cash at the end of every week. He offered the villagers, and the Administration agreed to, a price of a shilling per pound dry rubber content for all grades of rubber accepted. A system was organized whereby he provided for the transportation of latex by road from collecting points.[2] He arranged for the tapping of alternate 'sections' every 4 to 5 weeks; the time interval was dependent upon the density of the latex offered. Kongohambo was the collecting point for one 'section' consisting of stands between Kendata and Binduta; Koropata was the collecting point for another section. Only 70 villages were still supplying latex, mainly because of the accessibility. A report on native agriculture in January 1956 noted that villagers had sold 3,600 lb. (dry weight) of rubber for £180 in the previous 6 months. This was produced from only 10 stands 'near Avala' and it was felt that [435] other existing stands would probably not be brought into production until roads were improved. By July 1958 the number of stands had not increased but 6,000 lb. (dry weight) of rubber was produced and sold for £300 in 3 months.

In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

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[1] The report seems inaccurate where it says that the fall in price led the lessee to terminate production. In fact production continued.

[2] Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

433 replacement of his vehicle being necessary but uneconomic. By
249 1958 independent production from his own plantation was increasing
[464] and, despite periodic renewal of enthusiasm for rubber,[1] the number of village tapping stands had dwindled,[2] due partly, in the planter's view, to the movement of increasing numbers of able men from their villages to take paid employment. Already, in 1955, it had been noted that in the areas near Awala and Sangara there was a serious shortage of manpower for work in the villages due to the absence of men employed as wage-earners.

In 1958 the people still interested in tapping adopted the planter's plan that, instead of selling latex at 1 shilling per pound dry weight of rubber as before, they should coagulate their latex themselves and carry it to the factory for sale at 6 pence per pound of coagulum. However if members of a distant village had a lot of coagulum for sale, they might still ask the planter to send a vehicle to collect it without charge.

[435] Bi-annual 'reports on native agriculture' put production from village stands for the year ending 30 June 1959 at 7,000 lb. (dry weight) and the price at 1 shilling per pound. In November of the
[464] same year it was estimated that rubber was produced from about 50 acres of village stands. By December another 2,750 lb. had been produced and the European planter suggested that declining production was due to the attraction of labour to the new Sangara
[245] European plantations and to heavy demands on villagers' time made by Administration departments and the mission. Coffee and cocoa planting was said to be increasing at the expense of interest in tapping rubber. In the first 6 months of 1960, however, 4,700 lb. (dry weight) was produced; by mid-1964 interest had increased further[3] and coagulum with an estimated dry rubber content of
[435] 1,500 lb. per year was being produced. In 1962 the price offered by the planter for coagulum had fallen from 6 pence to 5½ pence per pound.

249 It is not clear whether the individuals who offered themselves as tappers after 1946 had been conceded this or any other right by the rest of the villagers. Responsibility for distributing

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[1] In the first 6 months of 1955 production from 7 plots of rubber 'in the Sasembata area' rose by 60 per cent to 8,000 lb. dry weight (DS-29-835).

[2] The planter puts the number of villages involved at this time at about 30. The number participating at present is still about the same.

[3] Interest was aroused by the Ombisusu rubber project at this time (see p.102).

249 centre may be overtapped. No attempt is made to extend the area under rubber or to replace existing trees. Self-sown seedlings are allowed to struggle under heavy shading of parent trees and surrounding bush. Crowding leads to an accumulation of trash which presents a disease hazard.

A meeting of the local council recently adopted the proposal of a European planter that he should supply labour to clean the village rubber stands in the area in return for the scrap rubber collected in the process but the villages concerned refused to assent to the agreement.

In order to produce the coagulum the Sivepe tappers pour latex into hollowed-out sections of logs on the site of the stand and leave it to undergo natural coagulation but some other villages coagulate latex in the buckets they had received from the European [435] planter. The blocks obtained in this way are washed in the river before being sold at the factory 3 miles away. Villagers claimed that coagulum produced from the Pusahambo stand in approximately 12 months before our survey was sold for £35, an average of £5.16.8 for each of the 6 tappers.[1] This figure was checked 433 against records of receipts issued and indicates a yearly yield from the 2.4 acre stand at Pusahambo of 320-40 lb. per acre, despite the age of the stand and condition of the tapping panels.[2]

This compares with the Territory average of 400 lb. per acre which is the same as the estimated yield for the village rubber when the trees were worked for the first time and the tapping standard was good. Neighbouring European planters achieve yields of up to 800 lb. per acre with similar clonal lines and expect 2,000 lb. per acre from newly-introduced high-yielding trees. The first yields from a nearby Orokaiva smallholder's scheme in 1964 indicated a maximum yield of 500 lb. per acre with the old clonal lines.

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[1] In 1964 Department of Agriculture staff reported that 1 month's tapping by a villager selling coagulum to the European might return £2 or £3, and that the tappers thought this amount too small.

[2] An officer of the Department of Agriculture who inspected the area in 1962 suggested that most of the trees being tapped were self-sown.

Chapter 5

The land and economic development

433 a. Shifting cultivation and residential stability

Under the present system of horticulture the amount of land surplus to current subsistence needs is small and imposes limits to expansion of commercial agriculture.

Williams (1928:154) regards the system of subsistence cultivation as wasteful because it requires such a large area per person. However, the practice of shifting gardens frequently and for short periods on scattered plots does give maximum yields and maintains soil fertility. Brookfield and Brown (1963:166) point out that no successful alternative to land rotation has yet been proven for subsistence agriculture in the tropics. Population pressure and soil fertility are not sufficiently serious problems on the slopes of Mt Lamington to warrant the measures which Fisk (1962) recommends in other circumstances.

[361] Keesing (see Chapter 3, Section e) argued that the rotation of land adversely affected social stability. But the settlement pattern which developed after the emergency shows that there is no necessary connection between dispersed settlement and either the local population density or the method of bush fallow rotation. Some very large villages formed after the eruption (e.g., Soroputa and Kiorota) retained large groups of immigrants who owned no [166] gardening lands near at hand. The present high rate of mobility between other villages, most of which are much larger than before, is not closely correlated with the shifting of garden sites. Among the Chimbu, by contrast, land use is more intensive, but frequent shifts of residence between scattered hamlets are related mainly to gardening needs.

178 With the introduction of cash cropping the Chimbu pattern of 361 settlement is becoming more permanent (Brookfield and Brown 166 1963:98). There is little significant evidence either to support 241 or oppose our belief that the planting of individual coffee plots since the mid-1950s has not been associated with a drop in

179 more active collaboration with local groups and leaders' (ibid:172).
423 The report discusses the Land Tenure (Conversion) Ordinance, which became law in 1964, noting (ibid:171) that the legislation requires that the Administration satisfy the preliminary conditions of 'complete inquiry about customary rights and agreement of all the holders of customary rights' before it can conduct the surveys and convert these rights to individual registered title free from any customary limitations.

The experience of the Native Lands Commission in surveying land and recording customary rights 'indicates that progress in the application of this legislation will almost certainly be slow' - too slow, the mission believes, for much progress to be made in implementing its recommendations for economic development (ibid.).

It recommends 'a more flexible approach' to the obstacles to change, posed by the traditional social matrix of land customs. The Administration could well 'encourage native groups to work out their own solution to obtaining individual ownership or control of the land within native customs. The local government councils could make a useful contribution to this difficult problem.'

c. Economic incentives

433 Mann (1954) concluded his report on the area by stating that the agricultural possibilities of rubber were very good but that

> it seems little short of a tragedy that the well-intentioned efforts to introduce it as a native culture in this area have come so close to complete failure, whilst the trees remain as a source of discouragement to further development of what may prove to be a worthwhile venture for the landowners of the district.

657 The policy of establishing rubber stands under the Native
433 Regulation was well-intentioned but, as Humphries points out (1944:4), it was implemented by a single overworked man. The people of the district may well have questioned the point of having 'useful trees' when the initial forced plantings were not followed up with the provision of extension, processing or marketing facilities. Although they eventually received a small income for little effort when a local planter put this idle capital to some use, there have never been facilities designed specifically for local needs.

Belshaw maintained that even while receiving this income the people were unhappy with the scheme, not simply because they judged the price they received unjust, but because they felt it was 'wrong that somebody else should be able to exploit their own resources' (1951:14). Moreover, they resented the withholding of payments and this has left lasting impressions.

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433 From the villagers' viewpoint Europeans who participated in establishing and exploiting their rubber, and other external agencies, have alternately assumed complete control of the enterprise - if it could legitimately be regarded as a continuous attempt to realize their assets' potential - or have adopted a laissez-faire attitude towards village production.

To help meet current demand A.N.G.A.U. encouraged resumption of the project after the war but the planter claims that 'in spite of repeated representations Administration has given no support, moral or otherwise', to the various schemes; although he sought to determine the villagers' preferences where alternatives offered themselves, it was inevitable, as things stood, that the people generally had very few opportunities to decide what form the scheme should take. They could merely be invited to express their preferences on random points about the implementation of a policy determined by others; they could also decide whether to participate or not, at the times a market could be offered.

When responsibility for specific tasks needed to be left with them as one scheme after another evolved, it was delegated inconsistently, left to chance or, at best, left to ad hoc decisions with the result that no clear and consistent definition was given to the respective rights and powers of Village Constables, Councillors, tappers and owners - either those initially listed on the agreement or the wider group said by informants later to have exercised these rights.

The fluctuations in the form of marketing schemes also engendered doubts as to the justification of the methods of determining the price or royalty they received. Uncertainties were not resolved by the lacunae in the scheme which some or all of the villagers were abruptly faced with at one time or another.

651 The people who planted coffee in 1956-7 had hoped that the income from the new crop would exceed their shares of the small revenue from rubber and could be depended on to provide enough for their annual tax paid to the newly established local government council. However, the income from the village plot would have been too low to provide this for everyone who participated in planting the coffee, if they had all been allowed to share in the money.

433 Whatever the cause of their unrealistic expectations, their disappointment and their bitterness over an alleged inconsistency in the payments made to different people or on different occasions for similar quantities of produce of uniform quality have been obstacles to the expansion of the present areas under coffee and to the introduction of cocoa as a second new cash crop. Growers express the view that, because their efforts with coffee have been

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] [438] [245] The areas of the gardens in which coffee was tried were too small to give satisfying returns.[1] The income of £11 earned by the sample by weeding, processing and marketing their coffee in 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty of rewards is reported to be common in most villages in this area. [245] However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.[2] Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

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1 The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

2 Figures from 1964 census, District Agricultural Office.

#433 The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital. However, it is evident that they have assessed the prospects of coffee, cocoa and rubber in turn and are inclined to believe that, of the 3, rubber is the crop most likely to produce worthwhile rewards for any labour they may devote to cash crops. [249] The first individual plantings of rubber at Sivepe and neighbouring villages have taken place recently. In the past few years 1 householder in our sample has planted nearly 100 trees near Nahihita. He is employed as a rubber tapper on a nearby plantation. Another has 1 acre of cleared land intended for rubber.[1] The seedlings are taken from the low-yielding lines in the village stands. There is land available to give some scope to extension of the present areas under rubber which could be sold through the existing outlet.

However, these production increases will be limited by the fact that villagers have to be content with low-yielding seedlings while high-yielding lines are now being introduced on to local European plantations and the Department of Agriculture Nursery and by the knowledge that, quite apart from the variability in the returns for their present efforts to produce rubber, with coagulum they are limited to manufacturing a consistently low-priced product. They can make comparisons in discussions with local people employed on neighbouring plantations processing quality sheet-rubber and in many cases they themselves have had first hand experience on rubber estates (see Table 10).

It is reported from various sources that the villagers to date have failed to find satisfaction in the organization of rubber production and in 1964 many were considering a plan to establish a rubber growers' co-operative on the lines of the Orokaiva Coffee Growers' Society, proposing to build a large factory of their own to meet the demands of the area now served by the European planter's factory.

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[1] Since our departure, this area has reverted to bush. Another area was cleared by the village for cash crops and it too was overgrown. Apart from various misunderstandings which again seem to have been the cause of abortive enterprise (E. Waddell: personal communication), this may indicate, among other things, that there is currently a strongly ambivalent attitude towards rubber production which requires resolution before a programme can be carried through.

A,[See Category 464, p. 82--Analyst]

794 not necessarily leaders in the old authority structure but often
177 people with particular experience of white rule (e.g., policemen).[1]
178 Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

178 The ending of inter-tribal skirmishing, which directly affected
657 the social roles of the sexes, also extended the physical range of
36 interactions open to individuals and resulted in the proliferation
[721] of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

241 From its beginnings the mainstay of government policy was the
[657] encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton,
[466] tobacco and rice were all tried; however, owing to a fall in prices,
[434] all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern
[433] Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some 1,000 cocoa trees were also planted in the pre-war period, although only the copra and coffee were worked during this time. All commercial agriculture ceased with the Japanese invasion in the second world war and was again interrupted by the eruption of Mt Lamington in 1951. The principle of compulsion was withdrawn in the same year and community enterprise largely ceased in the mid 1950s with an increasing trend towards individual plantings. The whole scheme was characterised not only by low returns to labour, delays in payment,[2] frequent disputed claims to plantings and serious problems in work organisation, but also by a definite feeling of resentment on the part of the indigenous participants.

(c) War and natural disaster

The Orokaiva view of the government was no doubt influenced by the second world war, which led to the Japanese occupation of the Northern District from July 1942 to January 1943, and by the eruption of Mt Lamington in January 1951, causing the death of over 4,000 people and the destruction of the district headquarters and staff at Higaturu.

The impact of the Japanese invasion and subsequent Allied readvance has never been assessed but must be considered profound. All Australian administration ceased and, when resumed, was vested in the Australian New Guinea Administrative Unit (ANGAU), a military authority. Several thousand men co-opted as carriers by both Australians and Japanese worked under very arduous conditions.[3] Since the Orokaiva lay athwart the main Buna-Kokoda route which was the scene of fierce fighting, many villagers retreated into the surrounding hills where they were obliged to subsist on very limited resources because of the absence of much of the potential labour force.[4] Others sided with the Japanese or profited by the power vacuum to attack or betray Allied troops and civilians or to assert their authority over other Orokaiva. On resumption of Australian rule, twenty-two men were sentenced for such deeds by a military tribunal and publicly hanged at Sangara and Higaturu.[5]

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[1] An estimated 111,000 trees at a spacing of 10 by 10 feet.

[2] As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

[3] For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[4] A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

[5] A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popoddetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 46 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per 1b,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per 1b over the period 1955-65 while that for latex has fallen from a peak of 55c per 1b during the Korean War boom to 9c per 1b in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per 1b, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

241 universally small and there is no evidence to suggest that any
[464] village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are
no motor vehicles owned by individuals or groups of subsistence
493 villagers,[2] although a number of villages now possess copra driers
and coffee pulping machines.
407

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage
[461] labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

731 (ii) Consequences of the disasters. The effects of the war and
•433 the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[439] [2] With the single exception of the indigenous ex-servicemen settlers,
[464] several of whom own vehicles; imported foodstuffs comprise a signif-
[465] icant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 731, p.16--Analyst]

than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

(iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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1 Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

2 See Salisbury 1962:338.

3 For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

4 Belshaw (1951:248) makes a similar allusion.

Chapter 3

The village economy

433 [128] This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of [251] life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, [438] none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

[436] The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

241 (a) The subsistence sector

(i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it [361] does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many [184] settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils [476] and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach [417] maturity. In the less densely settled areas where wild pigs are [136] common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A,[See Category 102, p. 38--Analyst]

438 [437] consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

434 [443] The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

241 (i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less [571] than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the [433] trees are self-sown. As well as lacking maintenance, in most cases

holdings of commercial trees are not fully, and sometimes not at all, exploited by the owners.[1]

Most have been established on land cleared for the purpose and are seldom interplanted with subsistence crops. However, a 'catch crop' of taro, sweet potato or corn may be taken from the newly cleared land before planting coffee or cocoa and it is only now becoming common to plant commercial trees in subsistence gardens after the food crops have been harvested.[2]

The techniques of cultivating and processing cash crops within the village are simple. Coffee is sold in parchment form. In most cases the cherries are pulped by stamping in a creek to split them open, and then the beans are removed by hand and washed. Some villages possess pulping machines. After fermenting for about twenty-four hours in wooden containers, the beans are washed again and sun-dried. A few people erect drying platforms but most simply spread the beans on sleeping-mats in the village square. The buying agency rejects parchment that has not been adequately dried but no price differentials are applied. The coffee season extends from about March to October and people may begin weeding some weeks beforehand. OCCS announces the season's coffee price (as determined by world market conditions) some weeks before buying commences, but few producers learn it in advance and, since they need to begin harvesting a month or two before the time of sale, the element of uncertainty may deter them from maintenance and harvesting even in years of high prices. All coffee is purchased by the society, which is sometimes prevented from buying by lack of funds, lack of transport, or by the poor state of the roads. Buyers may visit only once a month or less.[3] There is scope for an immediate quadrupling of production from existing trees,[4] and more active campaigns and perhaps additional buyers might help achieve this.

Cocoa, like coffee, is maintained, if at all, by occasional clearing of grass and weeds from around the trees. Harvesting is carried out immediately before sale - if possible, on the same day.

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[1] The coffee trees in Popondetta sub-district in 1963 should have yielded about 200 tons of polished coffee, but the actual level of output was only 41 tons (DASF, Popondetta, File 1-6-A(4)).

[2] This practice was followed by indigenous smallholders in Malaysia and Indonesia for two decades and resulted in the planting of millions of acres of rubber by the 1930s. See, for instance, Thomas 1965:101.

[3] In marked contrast to the more densely populated and more accessible parts of the highlands where competition among buyers is keen and some routes are visited daily.

[4] See footnote 1 on this page.

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged and sold at one of the co-operative buying agencies at Killerton, [435] Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 (ii) Marketing. In addition to the long-distance trading of
[443] subsistence produce by coastal people, the inland people are also beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

[433] [1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[594] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.1 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A, [See Category 871, p. 307--Analyst]

433 subsistence holdings in Sivepe, three individuals had no producing staple foods in their gardens.

592 Three of the fifteen households surveyed comprise only a single member. Two of these were a married couple who were considered, for the purposes of the survey, as separate households on the grounds that the wife lived for only short periods with her husband, dividing most of her time between her brother's and her father's houses instead.[1] The husband and the third individual, an old man, lived in their own houses, although the former abandoned his on departure from the village in August. One widowed woman and her children had no house of their own but shared those of primary kin until the end of March when she left to marry a man in another village. A second family left at about the same time, in search of wage employment. Thus, by November 1964, the number of households had fallen to twelve while for most purposes the separated woman (household 8) had become a member of her parent's household (14).

All the identified households cultivated separate gardens. For most of the survey period, two households had attached to them the wives and children[2] of two men at work outside the District. Both household heads, in establishing a garden, set aside a portion for the sole use and responsibility of these women, as they were expected to contribute to the household's food requirements.

(a) Food gardens

24 [125] A detailed survey was made of the holdings of seven households, selected to provide a cross-section of the community in terms of status of head, structure of household and involvement in cash cropping. These data were then compared with that collected by Rimoldi almost two years previously (see Tables 4:1 and 4:2). While the small size of the samples, 11 and 7 households respectively, makes it dangerous to draw conclusions, a few observations can be made.

Table 4:1 reveals a fall of 44 per cent in the average size of holdings planted with taro (Colocasia) and sweet potato. In 1964, the maximum sizes of taro and sweet potato areas were much lower than in 1963. This is offset, however, by very substantial increases to three and nine times (respectively) in the average plantings of yams and Xanthosoma. The holdings of two young household heads were responsible for almost all of these increases.[3]

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[1] i.e. effectively there were only 14 households, as recorded in Appendix 1.

[2] In one case, the daughter of the household head and her son, and in the other, the man's wife and her son.

[3] One has established a yam garden of 0.16 acres and the other a Xanthosoma garden of 0.15 acres.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

121 subsistence societies those activities which provide the mechanism for exchange are generally excluded since it is assumed that the exchanges are of little economic significance. As will be demonstrated such an assumption is of doubtful validity.

In societies where labour is not specialised and subsistence production dominates, the social and economic threads are closely interwoven. All actions may be considered economic in that they are concerned with the 'maximisation of satisfactions',[1] while the close association of the networks of kin with processes of production, distribution and consumption precludes the drawing of a clear distinction between work and leisure. While the term productive is a useful parameter as applied particularly to material life and in contrasting the nature of the involvement in the subsistence and external sectors of the economy, it comprises only part of the total economy. Production and labour in traditional societies must be considered as an integral part of this broader system, perhaps following Conklin (1957:152) who stresses that Hanunóo 'mixed swidden farming...constitutes a pattern for living rather than only a means of making a living or a source of food or cash income'.

There is a complexity of motives underlying the various activities and to suggest that work is oriented simply towards obtaining material goods and achieving subsistence is to grossly misrepresent the situation. 'The pleasure of craftsmanship, the feeling of emulation, the desire for public approval, the sense of duty towards the community, and the wish to conform to custom and tradition, all these and more find outcome in economic action.' (Firth 1959:175.) The point is not simply one of theoretical significance[2] but is of considerable relevance to a consideration of the development potential in these communities, and it is with this in mind that attention here is directed to the whole range of village activities.

179 433 The IBRD report on 'The Economic Development of Papua and New Guinea' considers efforts should be directed primarily to the exploitation of the two major resources of land and labour, and states (1965:40) that

[464] The mobilization of unskilled indigenous labour for development should not be difficult; the manpower potential is large and there is evidence that many more workers could be recruited for wage employment than are now at work.

121 464 The thesis that a potential surplus of labour is concealed within the New Guinea subsistence economy has been developed by Fisk. While the data which follows vindicates his main argument, two

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[1] See Burling 1962.

[2] For a detailed discussion of this see Steiner 1957.

121 [464]

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

[464] [433]

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

566 [595]

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. [431] Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). [437] This has the effect of increasing his capacity to produce and so further elevating his status. [184] Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

556 [25] [24] [43] [43] An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting some of the needs of those without yams. In such a case there is no limit to the individual level of production although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

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121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

164 man-hours were absorbed by clinic visits and related public health [404] activities. So, grouping all three categories together, sickness [734] accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their [162] time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

512 Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

512 The adult residents of Sivepe are active, on average, 40.6 hours 433 per man-week, although, as Fig.6:2 demonstrates, there is a sub- 241 stantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

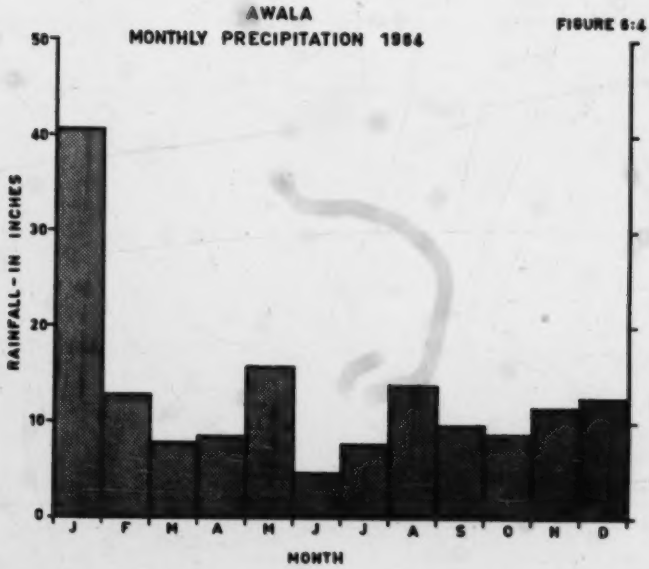
[461] [262] [251] Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[221] New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]



much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

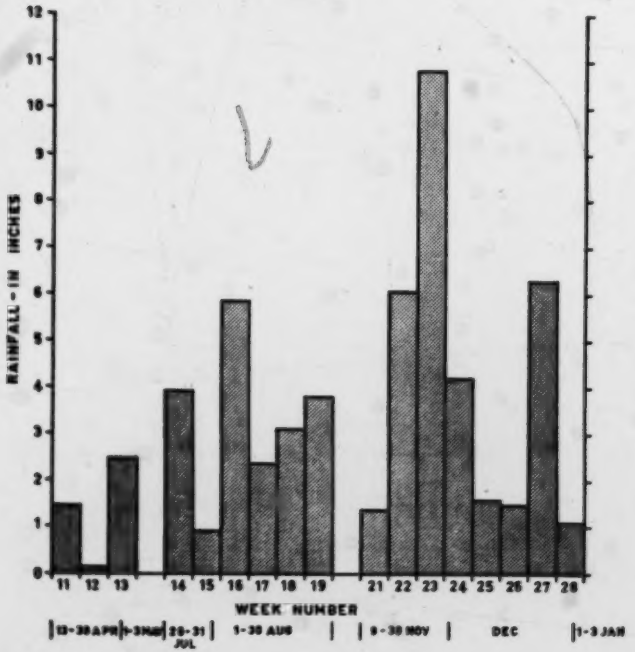
In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ina, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

132

SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 29 ONLY) FIGURE 6:5



512 Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

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Table 6:4

Sivopo: mean time spent per man-week on all activities in each recording period
(hours per man-week)

Group	Activity		Period I	Period II	Period III	Survey
Clearing			4.4	2.4	3.3	3.7
Subsistence gardening	Fencing		-	-	0.2	<0.1
	Taro	- plant	1.9	2.8	3.0	2.4
		maintain	3.8	3.9	4.5	3.6
		harvest	3.4	1.9	3.0	3.0
		market	0.1	-	-	<0.1
	Sweet potato	- plant	-	-	<0.1	-
		harvest	0.7	1.1	2.4	1.3
		market	0.1	-	-	<0.1
	Yam	- plant	0.6	-	-	0.3
		maintain	-	-	0.2	<0.1
		harvest	0.8	0.1	0.6	0.6
	Minor crops	- plant	-	0.1	<0.1	<0.1
		maintain	-	-	0.1	-
		harvest	1.0	3.4	1.1	1.5
		market	<0.1	-	0.3	<0.1
	Total		11.8	13.5	15.6	13.2
Other subsistence food production	Fishing		0.2	-	0.5	0.2
	Hunting		0.7	0.8	4.8	1.8
	Sago-making		-	1.5	0.4	0.4
	Total		1.0	2.3	5.7	2.5
Other subsistence activities	Preparation of tools and equipment		0.3	-	0.5	0.3
	Construction		2.2	1.6	0.6	1.6
	Total		2.5	1.6	1.1	1.9
Household	Washing		<0.1	0.2	0.3	0.2
	Cooking		4.8	4.6	5.1	4.8
	Collecting firewood		0.2	0.5	0.3	0.2
	Total		5.1	5.4	5.7	5.2
Social obligations	Marriage		-	0.2	-	-
	Death		1.7	0.9	0.3	1.1
	Other		0.8	0.7	1.7	1.0
	Visiting		1.3	1.8	1.3	1.2
	Total		3.8	3.8	3.2	3.4
Cash cropping	Coffee	- maintain	0.2	-	-	0.1
		harvest	0.9	0.2	-	0.5
		process	1.0	0.3	-	0.6
		market	-	0.5	-	0.1
	Rubber	- harvest	0.1	<0.1	0.5	0.2
		market	-	-	0.1	-
	Total		2.2	1.1	0.7	1.4
Paid work			2.0	1.2	1.0	1.6
Sick	Personal		0.5	0.2	1.2	0.6
	Care of sick		0.3	0.2	0.2	0.2
	Total		0.8	0.4	1.4	0.7
External agencies	Purchasing		0.2	0.4	0.7	0.4
	Council work		0.9	1.8	1.0	1.2
	Meetings		1.3	0.5	1.8	1.3
	Church work		0.3	0.3	0.1	0.2
	Church services		3.1	3.7	1.2	2.7
	Total		5.9	6.7	4.8	5.8
Miscellaneous	Recreation		0.1	0.4	0.4	0.3
	Other		0.1	-	1.1	0.4
	Researchers		0.3	-	0.2	0.2
	Total		0.6	0.5	1.7	0.8
Total - all groups			40.0	37.5	44.2	40.6

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is [262] relatively easy, the fruit being removed from the tree with the aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

● 433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive [512] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

222 Sago-making is a highly seasonal activity. In Sivepe, production 252 is confined primarily to the dry season when 1.5 hours per man-week [22] were spent on it, rising to 6.4 hours in week 16 when only taro [512] gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

252 [461] gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 [262] (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

● 433 512 [432] (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20.4

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A. [See Category 435, p.20--Analyst]

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about
[342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431 A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

512 [75] [164] Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433 Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

The organisation of work by households

592 461 Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887] At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

Chapter 8

The two villages compared

433 184

(a) Levels of activity in relation to available resources

In expending an average of 43.5 hours per man-week the Inonda villagers are slightly more active than their Sivepe counterparts, but the difference relates to the subsistence sector. Although both are communities of cultivators with taro the staple crop, the supplementary food producing activities are substantially more significant in Inonda, with fishing particularly important during the wet season. This more diversified economy partly explains the higher level of subsistence activity at Inonda (see Table 8:1).

More time is required to achieve subsistence at Inonda, principally because of the journey to work: 25 per cent of all activity time is devoted to travelling, even at the new site, compared with only 15 per cent at Sivepe.[1] Thus, if time spent in travelling is deducted, the difference between the two villages is eliminated, Inonda spending 25.1 hours per man-week on subsistence and Sivepe 25.5 hours.

Environmental differences provide some explanation for Inonda's subsistence economy being more diversified and the location of activities more dispersed. Not only are the soils around Sivepe of a uniformly high agricultural value but all the land is forested and therefore potentially available for cultivation. By contrast, the soils at Inonda are of variable quality and at least one-third of the total area is grassland and therefore unavailable for cultivation according to present practices, while even some of the forested areas are unsuitable due to the infertility of their soils. Most Inonda gardens are made on a land system covering only one-fifth of the total area. Probably on account of this generally lower soil fertility, the fallow period at Inonda is about ten years compared with only six at Sivepe and, using Crocombe and Hogbin's and Rimoldi's estimates of the garden requirements per head of

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[1] The contrast is even more marked if the uncorrected percentages are used - 32 per cent and 18.3 per cent respectively.

A. [See Category 461, p.171--Analyst]

433 184 population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in [24] the hinterland of a village which is located at the forest-grassland [222] boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

461 The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases [m] only about one-third of this is directed towards cash production. Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

433 184 In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100 \frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.
C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.
L = acreage of cultivated land per head of population per annum.

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Table 8:1

Sivepe and Inonda: some contrasts in activity patterns
(hours per man-week)

	Sivepe	Inonda
Clearing	2.9	3.7
Subsistence gardening	13.2	11.7
(of which: taro gardening	9.1	6.6)
Other subsistence food production	2.5	7.8
(of which: fishing	0.2	3.8
hunting	1.8	2.0
sago-making	0.4	1.2)
Construction	1.6	2.0
Total - subsistence sector	30.0	33.5
Cash-producing	3.2	3.7
(of which: cash cropping	1.6	1.0
paid work	1.6	2.7)
External agencies	5.8	3.2
(of which: meetings	1.3	0.3
church work/ services	3.0	1.0)
Total - external sector	10.7	10.0
Total*	40.6	43.5

* A 't' test was applied to the mean weekly figures, to provide some measure of the significance of difference between the mean level of activity in the two samples, using the equation

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s'} \sqrt{\frac{N_1 N_2}{N_1 + N_2}}$$

where s' = the standard deviation of the population. t was computed to be 1.98; the means for the two samples are, therefore, significant at the 5 per cent level.

and was largely connected with the improvement of the Popondetta-Oro Bay road which passes by the village. In Sivepe both are of equal significance. While one girl was in permanent employment, she had assumed no major subsistence responsibilities, was single and, during the course of the survey, left the village to reside on the mission station adjacent to her place of work.

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In each case several cash crops are grown, all of them tree crops. To some little attention is given (e.g. coffee in Inonda) while to others effort is restricted essentially to harvesting and the subsequent processing and marketing of the harvested product (e.g. coffee and rubber in Sivepe, coconuts in Inonda). Further

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

433 179

attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

433 178

Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

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Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites.

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector.

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine.

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work.

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of 461 184 few diseases or pests. In Sivepe, work groups in cash cropping are no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

433 184 166 464 In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether given the existing technology, socio-economic matrix and level of productivity the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Nevertheless it is incorrect to apply Salisbury's proposition (1962:216-20), that the change from a stone to steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks, as further evidence for labour availability. Apart from the fact that the proposition itself is not based on quantitative data and must be regarded only as a hypothesis, if, for the sake of discussion, the factor of 3 be applied to time spent in clearing, fencing and construction (the main axe-using tasks) in Sivepe and Inonda, an additional 10.8 and 11.6 hours per man-week respectively would be required for the work with a stone technology. Since 10.7 hours in Sivepe and 10.0 in Inonda are already being directed to the external sector each man-week virtually all the labour time made available as a result of this technological change is in fact being utilised.

While there is no evidence from the activity patterns to suggest any seasonal conflict in the labour requirements of cash and subsistence cropping there is, nevertheless, some inconclusive data from both villages to suggest that a substantial extension of cash-producing activities would conflict with the requirements of the subsistence sector. In Sivepe the processing of coffee - the most labour intensive of all cash cropping work - and the harvesting of rubber typically occur early in the day and so before the start of the normal daily routine, suggestive of the fact that extra time is 'made' to carry out these tasks.[1] At Inonda it appears that where a household head engages in full-time employment for more than two or three weeks the family finds difficulty in maintaining its food gardens and so meeting all its obligations.

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Given that the development of cash cropping bears a direct relationship to activity patterns the data suggest the basic issue to be not one of absolute availability of labour but rather of the organisation of labour and time. The hypothesis is suggested that in a primarily subsistence-oriented economy, those cash-producing activities which do not demand a significantly different and longer work routine will be preferred. The basic feature of this routine is that one activity need not be pursued to the exclusion of others and each can be interrupted at will. So the Orokaiva working day (and week) encompasses a wide range of tasks, each pursued for only a relatively short period of time. As with the Aitutaki villagers of the Cook Islands, 'commercialization has led to few appreciable innovations in the cropping system, land tenure, technology or labour' (Johnston 1967:68).

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The present relative adjustment of cash to subsistence cropping may only be a temporary feature of the village economy and the fact

[1] However, a higher yield of latex is also obtained by tapping early in the day.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

433 that it has been reached at all among the Orokaiva is probably due both to the level of out-migration into the permanent labour force and to the local opportunities for wage labour and contracting and so the ability of village residents to meet many of their needs for cash by other means. In the sphere of activity patterns therefore, viability of the traditional system remains largely unimpaired.

[178]

437 employees. The need for these people to evolve some sort of exchange relationships with neighbouring villagers is explained by their low salaries and restricted subsistence resources. Their presence also facilitates long distance hawking, in that people from the coast will come to stay with relatives employed inland, bringing with them their fish and lime.

436 The main use of cash is as the medium of exchange with the external sector and most transactions are, therefore, with organisations, with 80 per cent of disposals to them. These cover not only purchases of goods but tax payments and mission contributions, which together account for 15 per cent of all disposals to organisations. Only a part of this expenditure is met by the sale of cash crops and subsistence produce and by village-based wage labour. If gifts from the researchers are disregarded, remittances from wage earners outside the District rank with earnings produced directly by the sample's endeavours (37 and 40 per cent respectively of total acquisitions), while a further 8 per cent of total income is derived [433] from wage earners within the District. In effect the external sector of the village economy is dependent to a very substantial extent on the earnings of those kinsmen in wage labour.

The geographical dimensions of exchange

439 As revealed in the preceding section, the entry of a number of kinsmen into the external sector of the economy and their scattering over a wide area considerably complicate the spatial dimensions of exchange by introducing something of a random element based upon the distribution of expatriate settlements and institutions rather than of indigenous population. Thus, three-quarters of all clothing originates from Port Moresby since that is where the highest income earners (among kin) are employed; the 34 per cent of cash income obtained from wage earners outside the District came from three separate points in the Central, Gulf and Western Highlands Districts where relatives are stationed; while the bulk of foodstuffs are purchased in a store at Awala - one hour's walk from the village - rather than another at Kongehambo - only 20 minutes away - because the former is better stocked.

437 438 With novel means of communication available, particularly the postal service, the circulation of non-perishable goods which are not a product of the village economy is largely independent of factors of distance. Further, such circulation operates primarily outside the network of subsistence villagers, is restricted principally to the monetary system and is of a more strictly 'economic' nature. By contrast the exchange of subsistence produce and labour services takes place predominately at the village level, and here a more significant geographical (and sociological) dimension to exchanges can be identified.

437 uncommon to assist relatives from other villages in such major operations as clearing new garden sites but, with one exception, cash cropping services are confined to the intra-village level.

In conclusion, exchanges are primarily intra- and inter-village, and they operate over a highly restricted geographical range. Further, in the case of cash cropping and during the seasonal food shortages there is a tendency for this range to contract to the intra-village level.

The network of exchanges among kin

433 Apart from the absence of any generalised medium of exchange, it is the strength and ramifications of kinship networks, affirmed by reciprocal exchanges, which are believed to have the most deleterious effects on economic growth by inhibiting the accumulation of individual wealth. Thus, where an individual has access to a scarce resource, for example, money, obligations currently effective with kin permit the latter to register some claim to it, and result in its division and rapid distribution.

121 Murdoch (1949:92) defines a kinship system as 'a structured system of relationships, in which individuals are bound one to another by complex interlocking and ramifying ties'. The most important dimension of this system is 'distance' where, in Murdoch's case, an individual's relatives fall into four major categories - primary, secondary, tertiary and distant relatives. Primary relatives comprise members of the same nuclear family as a person - father, mother, sister, brother, spouse, son, daughter; each of these have primary relatives of their own, most of which are not primary relatives of Ego - for example, father's father, mother's brother, wife's sister - and are spoken of as secondary relatives. Each secondary relative, in turn, has primary relatives who are neither primary nor secondary relatives of Ego, and are therefore termed tertiary relatives - for example, father's brother's wife, father's sister's son, father's father's mother. Distant relatives are more remote than these.

The form and intensity of exchanges are held to be explicable largely in terms of such models of kinship. Sahlins (1965:149), in identifying a spectrum within the field of reciprocity (from 'generalised' through 'balanced' to 'negative reciprocity'), proposes that

> The span of social distance between those who exchange conditions the mode of exchange. Kinship distance...is especially relevant to the form of reciprocity. Reciprocity is inclined toward the generalized pole by close kinship, toward the negative extreme in proportion to kinship distance.

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] -
[574] surpluses (and their counterpart, shortages) are frequently the result as much of chance as of policy. Thus, near the end of the
[431] dry season a settler held a feast at short notice to mark the end of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence
221 sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A.[See Category 512, pp. 166-167--Analyst]

437 476 again reflecting assistance given by young people from outside the village. In addition to the two Seva men, whose help was requested by the entrepreneur, a young married couple came from Kendata village to assist household 17. These were the children of the sister of the household head's wife, who is also from Kendata.

Assistance in hunting and butchering of game shows marked seasonality, falling almost entirely into period I. This reflects the concentration of feasting in the same period, when men will request the help of those noted for their skill in hunting to provide the necessary meat.

Assistance in household tasks such as collecting water and cooking is mostly given by visitors, particularly women, from outside the village (see Table 11:16). The widow, however, received considerable help from two villagers when she made about 20 tapa cloths. Household assistance accounts for only 5 per cent of the subsistence services.

437 Most cash sector services are given in establishing or tending commercial crops, particularly the pruning and weeding of coffee gardens, which accounts for 55 per cent of the time disposed and 39 per cent of the time acquired. One man received assistance from close kin (his mother and sister) in clearing and staking out a new coffee garden.[1] One-fifth of the labour given was in weeding cocoa on a settlement block across the Girua River, reflecting an obligation incurred by one householder who had married the settler's step-daughter. Assistance received by the trade store owner in operating his store and in marketing other produce accounts for most of the other services in the cash sector. Labour assistance in the cash sector accounts for only 12 per cent of all services given, but assistance in the main task, maintenance of coffee, [433] exceeds that given in many subsistence operations and equals the amount given in hunting services. Thus, although the cash sector remains in some ways (as in the circulation of cash itself) peripheral to the village economy, it is integrated to the extent that it provides a recognised channel for meeting obligations through labour services.[2] In some cases, the receipt of assistance requires a return gift of cash, such assistance being one of the few sources of cash income available for old people or for women. In other cases, as with the settler's son-in-law, assistance in the cash sector is a means of meeting a traditional obligation. In sum,

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[584] [1] See p.246.

[2] Crocombe and Hogbin (1963:81, footnote), referring to assistance given to the Girua block settler by his son-in-law, point out that traditionally a prospective groom would assist his father-in-law with house-building or garden clearance.

[TEXT CONTINUED ON PAGE 439]

service. In Sivepe sustained reciprocal exchanges operate primarily among members of an extended family and secondarily within a single generation (as between cross-cousins or ego and his wife's brother). In the first a significant degree of economic inter-dependence is apparent, while in the second exchanges serve to support alliances which may be both social and economic in character. Because of the continuing nature of the relationship no final settlement occurs and reciprocation is, therefore, frequently delayed. Elsewhere major exchanges are more typically characterised by immediate reciprocation, particularly where the obligation is a specific one relating to particular goods or service. In consequence only the casual exchanges, which themselves comprise but a small proportion of the total quantity of goods and services transacted, can be judged a drain on resources in the sense that they might serve to inhibit individual aggrandisement.[1] Furthermore, in most instances, the proportion of total production exchanged is so slight that the system cannot be considered to function as a major limitation on productivity. Even where the proportion is high, as with pigs or sago, there is normally immediate reciprocation to an equivalent, and often negotiated, value. In effect, therefore, it is less the goods than the relationship which determines the type of exchange adopted and according to the available evidence, this applies regardless of the extent of individual involvement in the monetary economy.

With the exception of labour services the mean volume of transactions per man-week in all categories in Inonda is about twice the level of that in Sivepe (see Table 12:1). However, the area over which most of them operate is much the same; at Inonda, 87 per cent of the acquisitions and 89 per cent of the disposals of subsistence produce are effected within a radius of two miles of the village, compared with 91 per cent and 81 per cent respectively at Sivepe. This difference of scale is largely explicable in terms of the greater socio-economic diversity of the Inonda neighbourhood and, related to this, the fact that virtually all the village's cash income is locally derived whereas at Sivepe a major source is remittances from kin, with whom there is little direct contact.

At Inonda a more restricted range of subsistence produce is available; with the exception of sago, there is a scarcity of staple foods suitable for consumption during the dry season. At the same time there is an abundance of fish and game within the group territory. Within a short distance of the village live ex-servicemen settlers (some of whom are kinsmen) and plantation labourers, while access to the wage earners in Popondetta is facilitated through the market there. The limited number of Inonda people in the permanent

[1] See pp.181-2.

[TEXT CONTINUED ON PAGE 281]

Chapter 13

Rural productivity and capital formation

It has been demonstrated that, among the men at least, there is a significant amount of unutilised labour time available and that, although the Orokaiva are evidently committed to the cash economy, individual involvement is marginal. In particular, the commercial production of agricultural crops is poorly developed. Since this is the one form of enterprise which would appear the least disruptive of the subsistence routine and which exploits the available resources of land, labour and customary skills some explanation is required.

Although no direct evidence is available, Orokaiva diet, like that of many New Guinea societies, is probably adequate in calories but deficient in protein content. The ability of adults to undergo sustained periods of hard work, either in employment or in such subsistence tasks as sago-making, suggests that diet does not impose serious limitations on their productive capacity. It is worth noting, however, that there is a marked falling off in the level of activity in Sivepe during the dry season at a time when the diet, heavily reliant on sago, is least satisfactory. Moreover, this coincides with the coffee flush.

Both villages have access to more agricultural land than is required for subsistence. Crocombe and Hogbin (1963:10) estimate that, at Inonda, there are 580 acres of 'good gardening land available', of which only 127 acres are presently required. Rimoldi (1966:20-1) estimates the Sivepe sample's requirements to be 110 acres out of an available area of 138 acres, all of which is considered suitable for cultivation. In the former village only about 5 acres are under commercial crops (coffee, coconuts and cocoa) and 4.6 acres in the latter (coffee and rubber). Accessibility may be important in the failure to plant additional areas under cash crops. The preference for establishing such plantings close to the village at Sivepe, where the initial processing is carried out, has already been noted.[1] In the case of Inonda the degree of commercialisation is influenced

[1] See pp.110-11.

A.[See Category 361, pp. 110-111--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

311 by the dispersal of suitable agricultural land over a wide area, creating a large 'journey to work' component in all productive tasks. After moving the village to its new site, an area about twenty minutes' walk away was selected for extensive new coffee gardens (partly on the grounds of proximity to an ample supply of water), but it was eventually rejected and seedlings were planted instead in harvested food gardens only five minutes away from the village.

433 For the indigenous producer transport is a major consideration. Clark and Haswell (1964:157) state that

> The methods of transport available to subsistence agricultural populations...are so costly that produce only has to be carried a limited distance before most of its value, from the point of view of net returns from the sale, has gone.

Porterage is arduous work requiring a good diet, and the minimum cost measured in terms of kg. grain equivalent/ton km., is high compared with other modes of transport.[1] The lower the value of a good per unit weight the more critical this factor becomes. In the case of coffee and copra, where initial processing results in a weight loss in excess of 80 per cent,[2] considerations of distance from the planting to the village (where the processing is carried out) are [361] particularly important. The Sivepe people market their parchment coffee at a point about one hour's walk from the village but they consider the distance excessive and hope to eliminate it by relocating the village on a road accessible to buyers' vehicles. If a journey of one hour's duration is considered the maximum they will carry their parchment coffee, it is reasonable to suggest that one-fifth of this time, or twelve minutes, is the maximum they are prepared to walk from village to garden to harvest the crop. Certainly it is evident that, given the means of transport available, the marginal utility of cash cropping decreases rapidly from village to garden and to point of marketing, with the rate of decrease considerably higher in the former direction.[3]

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[1] See Clark and Haswell 1964:160-3.

[2] Among the Chimbu of the New Guinea highlands it is estimated that 5.48 lbs of arabica cherry produces 1 lb of parchment (Brookfield: personal communication) - a weight loss of 81.8 per cent. It is assumed that the kernel comprises one-third of the total weight of a coconut and, of this, 50 per cent is water. In good quality copra the moisture content is reduced to 6 per cent - i.e. a weight loss of 81.6 per cent is effected in the production of copra (Department of Commerce and Agriculture 1953:1).

[3] While the ratio may remain constant the actual time involved will, of course, vary greatly from point to point, according to such considerations as the utility of money, expectations from cash cropping, etc. Thus the Aiga must walk for 3 hours or more to sell their cocoa (Rimoldi: personal communication).

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Early in 1966 DASF in Popondetta, working through the OCGS, recommended the establishment of several fermentaries through the area which would purchase cherry. The object of the scheme was, firstly, to increase the cash return to the grower by eliminating time-consuming and inefficient pulping at the village level and, secondly, improve the quality of locally-produced coffee. The Orokaiva expressed their opposition to the proposal; a reaction which is readily understandable in terms of the problems inherent in marketing cherry, with its much lower value per unit weight than parchment.

Although the transport situation is largely beyond the control of the individual grower, the low level of productivity characteristic of the handling of cash crops is not entirely so. DASF at Popondetta estimate optimum yields of coffee to be of the order of 2 lbs of parchment per tree. The yields realised at Inonda during 1964 amounted to only about 0.37 lb per mature tree although those at Sivepe, where the ecological conditions are more favourable and the cash economy more dependent on coffee, exceeded 1.5 lbs. Although dissatisfaction with prices obtained early in the season frequently deters growers from harvesting all their coffee, as does the obligation to reciprocate with cash any assistance received in transporting it to the selling point, returns to labour are reduced by inefficient techniques. Fig. 13:1 indicates the typically haphazard movements of coffee pickers, where there is no systematic removal of cherries and a tree may be returned to several times in the course of a single period of harvesting. Due to a lack of pruning trees often grow 10 ft high or more, leaving many cherries out of reach. The lack of suitable receptacles in which to put the harvested product further reduces the efficiency of the picker - cooking pots and their lids are often used, leaving only one hand free for the actual picking. Even more inadequate are the techniques of hand pulping often used.

[4C1]
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Similar problems are associated with rubber in Sivepe, although a reasonable level of production is maintained.[1] The communal planting contains a large number of closely spaced, self-sown trees which inhibit movement. Ignorance on the part of a number of the users as to the correct method of tapping has resulted in the scarring of many of the trees and a consequent reduction in their yield. As with coffee, trees are tapped at random, while the quality of the latex produced suffers from a lack of proper equipment.

Finally, at Inonda, the first quantity of copra produced was spoiled by smoke when husks were added to the fire. Where there is a communal element, difficulty arises out of a failure to delegate

[1] See Rimoldi 1966:93.

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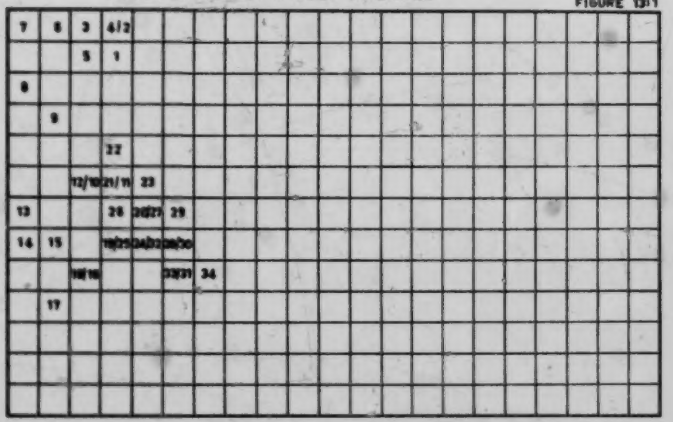
SIVEPE: THE TECHNIQUE OF HARVESTING COFFEE

THE SEQUENCE OF MOVEMENT OF ONE MAN BETWEEN TREES OVER A 1.6 HOUR PERIOD

EACH SQUARE REPRESENTS ONE TREE, THE TREES BEING SPACED AT 8 FEET INTERVALS

FIGURE 13:1



●433 responsibility effectively, but, in all cases, a serious problem is lack of knowledge on the part of the cash cropper. Such recent developments as the copra scheme at Inonda and the communal garden and individual rubber plantings at Sivepe clearly reflect a continuing interest in commercial agriculture. A general failure to develop the appropriate skills would seem to be explained by the inadequacy of DASF extension patrols. Before the establishment of the Ombi-Tara scheme[1] the department did not formally concern itself with village rubber, while educational patrols in connection with the other crops are infrequent, and so little time is spent in each community that the benefits accruing from instruction are slight.

Table 13:1 details some returns to labour from the production and marketing of cash crops in Sivepe and Inonda. Rubber emerges with the most favourable return, at 12c per hour, primarily on

[1] See Morawetz 1967.

[TEXT CONTINUED ON PAGE 212]

433

Table 13:1

Some returns to labour from established cash crops

Crop	Village	No. of sales	Total hours worked*	Return (in cents per hour) Range	Mean
Rubber	Sivepe	3	112.3	9-15	12
Coffee	"	5	727.4	6-13	9
Copra	Inonda	1	30.7	-	8

* Harvesting, processing and marketing.

account of the limited amount of labour-time required to coagulate rubber in the village, when compared with the preparation of parchment coffee or copra. The differences are, however, slight and the return from coffee is inflated on account of the significant labour contribution made by children in pulping being disregarded, while the figure for copra refers to an initial attempt at production and efficiency is likely to have increased subsequently. Although rubber is generally recognised to be an 'easier' crop at Sivepe, estimates of commercial trees within the sub-district do not suggest any widespread preference for it,[1] and cash crop preferences appear to be placed on considerations other than that of the return to labour.

[461]

Coffee is the most widely-planted tree, partly no doubt because of encouragement by DASF, but also because it has a much higher value per unit weight than the others, being marketed for 18c per lb. Rubber, as coagulum, markets at 5c per lb and copra and cocoa at about 3c. This higher intrinsic value is extremely important in the prevailing marketing situation where cash crops must normally be carried some distance to the point of sale. Furthermore, not only does the seller of rubber or copra receive a lower gross return per man-journey (see Table 13:3), but his net return may be reduced through repayment for transporting these bulkier crops to the point of sale.

[434] [461]

Cash cropping is only one of several important sources of income and, in Inonda, it is comparatively insignificant. Although it can generally be presumed that the principal reason for embarking on cash-producing activities is the acquisition of money,[2] an investigation of comparative returns to labour does not provide an entirely satisfactory explanation for the status of commercial crops.

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[1] See p.18.

[2] In the case of medical work at Sasembata mission and labouring for settlers, the acquisition of cash is certainly not the sole or even main motive. See pp.30-1, 93.

A. [See Category 461, pp. 30-31; Category 797, p. 93--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Onokaiva QJ23

Table 13:2

Some returns to labour from cash-producing activities other than cash cropping

Activity	Village	No. of payments	Total hours worked	Return	
				Total ($)	Per hour ($)
'Marketing' pig	Sivepe	1	4.8	8.15	1.70
Contracting	Inonda*	1	54.2	36.00	0.66
Sale of timber	" *	2	56.8	20.00	0.35
Labouring, for army	"	6	7.2	2.40	0.33
Operation of trade store	" *	0	6.2 per week**	1.59 per week	0.26
Election work	" *	1	21.8	4.00	0.18
Gambling	"	8	95.0	11.30	0.12
Labouring, for contractor	"	6	323.1	36.00	0.11
Marketing fish and meat	"	19	272.7	25.70	0.09
Marketing produce	Sivepe	11	100.3	9.45	0.09
Labouring, for settler	Inonda	2	199.7	9.00	0.05***
Labouring, for road construction	"	2	157.5	8.40	0.05
Contracting	Sivepe	1	271.2	6.00	0.02
Medical work	"	1	53.7 per week	0.26 per week	0.05

* Indicates activities only undertaken by the entrepreneur at Inonda.
** All rates per week are expressed as means.
*** In addition to cash, the labourer received at least one meal of taro or rice a day.

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433 434 As shown in Table 13:2, returns vary greatly, with some of the most favourable activities being pursued only by the entrepreneur in Inonda - a man who profits greatly by his personal contacts with a number of expatriates. By far the highest returns are obtained from marketing pig within the village, but dictates of custom restrict the frequent practice of this. While 'establishment' costs - in the sense of rearing pigs, growing produce, seeking contracts and employment, etc. - have been disregarded in estimating these returns they are, at the present stage of development, very low and often 'hidden' by subsistence sector requirements. Pigs are reared and garden produce grown as a part of the subsistence routine and their marketing is largely incidental; the decision to market wild game may only be taken after a successful hunting expedition; and the entrepreneur is well-known to the Administration as a reliable and resourceful individual and is often approached first about contracts.

The proliferation of cash-producing activities suggests one of three possibilities: that any single source of income, such as cash cropping is by itself inadequate; that cash cropping is not considered the best source of income; that demand exceeds the income from any one source. While opportunities vary greatly from one individual to another, the question of choice between individual activities seldom arises since many occur so irregularly that they cannot be considered reliable sources of income.

Two main considerations appear to determine preferred means for the acquisition of cash: firstly, reliability of income, and, secondly, size of individual cash payments. Each bears some relationship to the criterion of returns to labour but distinctive elements are also incorporated. An established demand for cash implies the need for a regular income and, among the range of activities, only cash cropping and the marketing of subsistence produce can provide this for the majority of villagers. If establishment costs are taken into account returns from the latter are higher, while its complete adjustment to the agricultural routine [435] renders it a more suitable activity for the subsistence farmer. However, the value per unit weight of garden produce marketed at Saiho is, at 2c per lb, insufficient to elicit serious interest in Sivepe, while its perishability, relative to cash crops, is an added deterrent. The unit value of smoked fish and meat sold by the Inonda people at Popondetta market is much higher (20c and 10c per lb respectively) but there are likely to be social pressures operating against the too-frequent commercial exploitation of these village resources: an opposition somewhat similar (in terms of the [431] utilisation of a scarce resource for personal gain) to that voiced in Sivepe to the sale of domestic pigmeat. While such an attitude was never overt during 1964 it serves as a partial explanation for the fact that individuals often distributed game through the gift exchange nexus when they could have sold it at the market.

433 434 (461).

At Inonda there is a generally expressed preference for wage employment. Compared with most other activities, returns in this are less, but a weekly income is assured. By contrast several hours may be spent in hunting or fishing and marketing with little or no return, and gambling may result in loss. Shortly after the end of the survey four men from Inonda obtained employment in Popondetta, involving a ten-mile journey to work each day. At the normal wage rate for casual labour the returns would be particularly low, while full-time employment would also make it difficult for them to maintain their food gardens. Although some men are able to call on young men from other villages to assist in garden maintenance,[1] this is not always possible and married men often need to leave their jobs to fulfil obligations in the village and embark on a period of intensive garden work.

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Capital formation and investment and the utility of money are matters of immediate concern to the villager who participates in the cash economy in order to raise his standard of living. Trade store stocks are restricted to cheap consumer goods which give the purchaser little lasting satisfaction. Earnings are so small that once major commitments such as council taxes are settled, what remains is often sufficient only for minor purchases. Facilities for the effective saving of cash are inadequate; people are unwilling to walk several miles to deposit small sums at a savings bank agency, and money held in the house is immediately available for casual demands. This unsatisfactory situation is an inevitable feature of a predominately subsistence economy. For this reason villagers appear to place some importance on the size of individual cash payments regardless of the labour input involved, for, the greater the sum, the greater the potential utility of the money. It is in this context that the particular significance of remittances to the Sivepe economy can be understood. All important instances of capital saving and investment in the two villages followed receipts of large sums of cash.[2]

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The pre-eminence in Sivepe, in terms of size of cash payments, of sales of coffee, pigmeat and remittances is shown in Table 13:3. In spite of the considerable price fluctuations which may occur, coffee is the only one for which there is any degree of reliability of income. The position of pigmeat in terms of size of payment and of returns to labour explains the very considerable temptations evidenced in Sivepe to 'market', while the small payments for rubber, which are a direct function of its low value per unit weight, provide a partial explanation for the failure to develop it further as a cash crop, in spite of its relatively high returns to labour.

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[1] See Crocombe and Hogbin 1963:64.

[2] See pp.204-5 and 256.

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Table 13:3

Sivepe: mean size of individual cash acquisitions from major sources

Item	No. of occasions	Income (in $) Total	Mean
Sale of coffee	13	159.95	12.30
'Marketing' pigmeat	2	18.15	9.08
Remittances (from outside the District)	17	153.00	9.00
Sale of rubber	5	23.70	4.73
Payment for work on settlers' blocks	7	32.60	4.66

Note. The differences between Tables 13:1 and 13:3 in number of sales of coffee and rubber recorded are explicable in terms of the availability of appropriate data on labour inputs.

433 The overall pattern of involvement in the monetary economy covers a wide range of cash-producing activities but suggests only a limited commitment to cash cropping itself. Although the productivity of these crops could be readily increased the villagers do not seem greatly interested. In part they are deterred by marketing difficulties, but of equal importance is a cautiousness founded on past experience. Rimoldi (1966:101) remarks:

> The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital.[1]

The history of cash cropping among the Orokaiva is extremely chequered and is reflected in a continuing unwillingness to be committed to it as the principal source of income. Instead, more of an opportunist approach to money is adopted, and this may involve taking work where the returns are extremely small.

461 Although Crocombe and Hogbin (1963:83) have suggested that considerable increases in agricultural output could be effected without the introduction of capital, the villagers themselves consider major investments to be an essential concomitant of such increases, if only in order to demonstrate to others the advantages they have effected. Preference is therefore placed on activities characterised as much

[1] See also Crocombe and Hogbin 1963:82.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Chapter 14

The dual economy: some implications

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Both Sivepe and Inonda are characterised by a generally low level of involvement in the external economy, and particularly in cash cropping. Although individual villagers are constantly required to make decisions concerning their commitment to cash, none have begun to specialise in commercial production and none have distinguished themselves from their peers through the accumulation of wealth. This occurs in spite of a definite under-utilisation of labour and in the apparent absence, among the Orokaiva, of customary factors of a type generally considered to seriously limit individual endeavour.[1]

A number of facts have emerged that illuminate this situation; namely, that, in terms of activity time, individual involvement in the external sector is largely of an unproductive nature, extension services, transport and marketing facilities are inadequate, returns to labour are low, the small sums of money usually handled are of very limited utility, and capital formation is difficult.

Although there are indications that individual economic advancement is best achieved by a physical break with the village, as through resettlement or migration into the urban labour force, the capacity of the national economy to absorb people in these ways is very limited. The problem is, therefore, one of raising the general level of development within the Orokaiva village (i.e. the existing cultural context). The limitations stated above only illuminate particular aspects of this problem which, it is suggested, is fundamentally an organisational one associated with the juxtaposition of two cropping systems in single units of production.

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[1] Two of the most widely recognised are 'first, that concern with ceremonial channels limits energy and prevents it from operating in other directions, and second, that jealousy places a limit upon achievement and accumulation too far ahead of one's peers' (Belshaw 1965:38). See also Nash 1966:35-6. Admittedly such 'controls' may be absent precisely because, for the other reasons noted, no individual is obviously far more successful than the others.

Two largely unrelated agricultural systems are practised side-by-side, with cash cropping (or the alternative cash-producing activities) utilising labour time surplus to the requirements of the subsistence sector. Productivity in both types of production is low and, furthermore, any expansion in cash cropping is not necessarily paralleled by an increase in productivity or reduction in subsistence agricultural activities. 433

The Administration's extension policy is concerned both with 'raising the level of subsistence in the villages' and 'introducing the economic means of supporting a higher standard of living (DASF 1959). While such a policy might promote development with the least possible risk to the producer, it has a direct bearing on both the quality and degree of individual involvement in commercial activities. [654]

One agricultural extension officer has noted that 'The subsistence farmer's involvement in cash-cropping has...added to the complexities of his decision-making and lays increasing emphasis on his role as a farm manager. He now has to make more complex decisions and choices about what to produce, how to produce and how much to produce' (Reed 1966). Individual specialisation is, effectively, discouraged because the mechanism is not being developed for an exchange of subsistence produce which might permit some people to concentrate exclusively on cash crop production. Problems of a lack of technical knowledge and equipment are intensified in situations where cash and subsistence cropping are pursued simultaneously. The essential homogeneity of the village remains therefore largely unimpaired. [178] The nature of the people's contacts with the external economy and the expatriate community only serves to reinforce it. These contacts are few and tend to be formal and innovations only permeate through with difficulty. Villages tend to be isolated from the main centres of expatriate activity and, in consequence, people find it difficult to participate in those cash-producing activities, such as wage labour, which provide a regular source of income. The basic functional discontinuity between Orokaiva village and expatriate settlement tends to sustain a situation where money is used primarily to exchange 'exports' for 'imports' and has little impact on the rest of the village economy; while the apparent control which expatriates exercise over all successful economic diversification and other developments tends to discourage initiative within the village.

The problem of stabilising the world market situation for cash crops, or at least of cushioning the producer from the price fluctuations, cannot easily be resolved, but some of the other problems are amenable to direct intervention.[1] Given their long and mixed [179]

[1] As exemplified by the apparent success of the Ombi-Tara scheme (see Morawetz 1967).

433 experiences with cash cropping such intervention is urgently required among the Orokaiva.

Village life cannot yet be characterised as a 'culture of poverty' in the sense that Lewis (1966) conceives the term or Watters (1967) has applied it. Unlike the Venezuelan campesino the Orokaiva seldom express the 'attitudes of hopelessness, helplessness and resignation that are so inimical to the spirit of enterprise and innovation that is so desperately needed if traditional agriculture is to be transformed, and the modern world ushered in' (Watters 1967:40:1). As this study has shown, Orokaiva villagers are still actively experimenting with cash crops and with new forms of organisation. Despite their past experiences and the scepticism which frequently plagues current attempts, many are willing to work hard and they still seek the 'road' to prosperity. It is evident that if this 'road' is to be found it requires something more radical than the encouragement of limited cash cropping by subsistence farmers. As a prerequisite for real progress there must be a thorough-going reappraisal of the whole village economy and its place in the wider, national economy.

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Summary of conclusions

While the foregoing study was concerned specifically with investigating certain aspects of the relationship between cash and subsistence cropping, the data gathered are relevant to a much wider field. The main conclusions are therefore summarised here to suggest some of the broader theoretical implications of the data. It is the authors' intention that some of these wider themes will be dealt with in later papers.

The conclusions fall into two general groups - specific statements of fact founded directly on the data, and evaluations which are derived from this factual information. No distinction is drawn between the two in this summary and the listing follows the order in which they fall within the text.

1. A very high proportion of the potential adult male labour force is absent from Sivepe (but not Inonda), while dependents are supported by close kin in the village (pp.37, 53).

2. While there have been significant reductions in the total cultivated areas since the previous surveys, acreages under yams and Xanthosoma have increased substantially (pp.41-4).

3. There have been a number of attempts recently to expand cash cropping activities, both on individual and communal bases, but with little success (pp.44-5, 59-60). Even copra production ceased in Inonda during 1967 due to insufficient trees in excess of subsistence requirements (Oriri: personal communication).

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point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Picking	Pods*	Net wt. lbs.	Amount received $	Picking	Pods*	Net wt. lbs.	Amount received $
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Devhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).
**Bapa man, not member of Yega Scheme.

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Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

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(423)

(iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

(433) (ii) the production of crops for sale;

(242) (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

(361) (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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(423)

The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognise that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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Table 4

Inonda coffee production(1)

Year	Household No.	Weight (lbs. parchment coffee)	Price per lb.	Value
1960	1	242	1/2 and 1/3	£14.13. 4
	3	61(2)	" "	3.14. 4
	4	103(3)	" "	6. 3.11
	Total	406		24.11. 7
1961	1	246	1/-	12. 6. 0
	3	76	1/-	3.16. 0
	4	24	1/-	1. 4. 0
	Total	346		17. 6. 0
1962 (to Aug.)	1		1/-	6. 0. 0
	3		1/-	3. 0. 0
	4		1/-	4. 0. 0
	Total			£13. 0. 0

(1) Details of sales were obtained from receipts issued to producers by the Orokaiva Coffee Growers Society (for sales in 1962) and by the Department of Agriculture (for sales in 1960-1). Information for 1960 and 1961 is probably complete (except for sales from household 4 for 1961). Figures for 1962 include producers' estimates of the value of coffee they harvested during the first eight months of the year.

(2) Part of this coffee was sold by the brother of the head of household 3.

(3) Part of this coffee was sold by the step-father of the head of household 4.

121 ambitious men could be resettled on individual holdings outside Inonda. There is no indication that freehold tenure within Inonda would facilitate improved productivity any more than the Higaturu Council registration scheme.

[241 495] It is apparent that the highest productivity per man and per acre at present is achieved on the large-scale European plantations and the individual family holdings for Papuans, both of which are financed largely by government loans. The degree to which developments of this type can be extended is limited in practice by the volume of funds available from or through government agencies. The comparative productivity of these two forms of organization is now being analysed and it is hoped that the results will be available in the next few months.(1)

It is likely that at this stage only a few Inonda men would be suitable for resettlement on individual blocks, with development loans, but a number would be both suitable and willing to work as plantation labour. The feasibility of encouraging the ownership of plantations by Papuans seems to merit exploration, for experience elsewhere in the Pacific in recent years suggests that in conjunction with expansion of cash cropping by individuals or families, plantation agriculture operated by indigenous entrepreneurs may provide an important avenue to increased output from commercial agriculture.

(1) A paper on the Popondetta plantation economy is in the course of preparation by Dr. Diane Howlett and another on the government-sponsored family holdings by Mr. R.J. Cheetham. Both will appear in subsequent issues of this Bulletin.

657 productivity. Consolidation of an individual's scattered plots
423 reduces the amount of time devoted to travelling and increases the
182 acreage which can be planted with cash crops in any one location.
241 The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

657 Consolidation has facilitated the provision of assistance by
423 Department of Agriculture staff, increasing the effectiveness of
182 officers. Planting, pest control and general crop maintenance can
242 be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

657 Tenure conversion appears likely to enable economies of scale
423 when the rubber trees come into production, hence increasing the
182 productivity of village labour. Economies may be gained in pro-
433 cessing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

657 to be effective, must be associated with improvements in technical
423 skills and the provision of credit, transport and marketing facili-
182 ties. That individualisation of tenure does not necessarily lead
433 to improvements in productivity has been demonstrated in many areas including South Africa (Yudelman 1965:239), Ongoho in the Northern District of Papua (Crocombe 1964a:36), and the Cook Islands, where Crocombe (1964b:142) concluded that

> the issue of registered freehold titles by the Land Court of itself made little if any contribution to output in the early decades of the century and of recent years has had a negative effect.... Security of tenure must also be complemented by other measures if major increases in productivity are to result.

Tenure conversion at Ombi-Tara has enabled labour inputs in the establishment and maintenance of the rubber plantations to be reduced and appears likely to lead to economies of scale when the trees come into production. Conversion has facilitated, and has been complemented by, increased agricultural assistance. These factors together have contributed to the increase in cash cropping activity and improved labour productivity at Ombi-Tara.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [198] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

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[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was self-sufficiency. Traditionally, the people of New Guinea were subsistence cultivators planting their food crops in small clearings in the forests and supplementing this food supply by fishing, by hunting the animals which live in the forests and on the grasslands and by gathering the edible produce of wild vegetation, notably sago. Only the simplest implements were available: stone axes with which trees could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

Such an economy, in which there was no concept of saving and no profit motive, tended to be resistant to change; innovation was unnecessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

[P.1-A]

433 were introduced. The use of these tools has
241 greatly lightened the work of the New Guinea
172 gardener and substantially reduced the time
412 needed to produce his vegetable foods. Thus time was available, when the incentive was supplied, to produce crops which could be sold for cash.

241 The introduction of new tools has not, how-
242 ever, had any marked effect upon the methods by which a New Guinea villager produces his food crops. Long ago he discovered by experience what agriculturalists have later discovered scientifically, that tropical soils when exposed to the sun and rain very rapidly lose their plant nutrient content (particularly nitrogen) and without the addition of fertilizer they will not sustain crop yields. In order then to make the most efficient use of cleared land, the villager plants his swidden with a variety of food crops, mainly tubers, which, maturing at different rates, help to maintain a constant food supply. Swiddens are usually abandoned after twelve to eighteen months and allowed to return to forest. Meanwhile new clearings are made and crops planted to ensure continuity. Forest is allowed to regenerate on old swidden sites for a period of five to twenty years depending on the population density and consequent pressure upon the land. Provided that the forest cover is left for about ten years between periods of cultivation, soil deterioration does not usually occur. Under this system of land
241 use, which can best be described as one of
242 shifting-field agriculture, the average land requirement is a quarter of an acre per head per
311 (P.1-B)

241 242 317 year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

241 433 177 [437] The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A]

No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

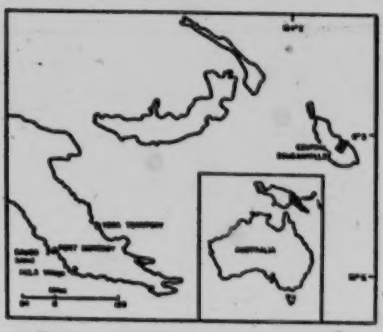

Fig. 1. Location of the three case studies

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14]

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

474 The first such experiment was an agricul-
241 tural co-operative, originated by a returned
[177] soldier who got the idea from one of his
[179] wartime Australian friends. Anglican Mis-
sionaries sponsored and directed the scheme
and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in

[P.14-B]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

361 He has now cleared bush and planted gardens
423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a
458 source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was
[439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two
245 cents per pound. The discouraging effect of
433 such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined
178 above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

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[476] a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in tradi-
177 tional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

devote less time to the cultivation of the more laborious (but more favoured) Colocasia taro.

During the post-eruption period there have been, as we shall see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepa there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

The average Sivepa family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepa	Inonda
Coconut	Sago
Breadfruit (oga and sumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source of income. At Sivepa, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack of betelnuts is felt very strongly, as the Inonda people are as fond of chewing it as other Orokaiva. Hence, it is usually obtained

A [See Cat. 116, p. 213--Analyst]

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Capital goods, though few, should be briefly mentioned. Apart from a house and his clothing, the average man owns very little. The sum of his possessions make a very small pile: a bush knife and two or three implements, some kitchen utensils, a small box of feathers and ornaments, usually carefully locked, perhaps a few dollars of savings, and--in both Inonda and Sivepe--an interest in a coffee-hulling machine presented by an anthropologist. About half the people have a storm lantern; two Sivepe men had a pressure lamp, lit on weighty occasions only. With the exception of the valuables, these capital goods are innovations; at the time of the eruption people had far fewer, and these were mostly acquired after the second world war or from American soldiers.

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Comparing the development of Sivepe and Inonda over the last 15 years, we note several significant differences in the exploitation of resources: Sivepe, but not Inonda, has rapidly expanded its coffee production in the 1960's; Sivepe but not Inonda is deriving a significant cash income from "looking after" the wives of migrants. I have referred to several other differences, but these seem to me the most significant, as they do not appear to me to follow directly from ecological differences.

Section 2: Economic Assistance

177 Subsistence: Undoubtedly, European contact had a profound influence
433 on the subsistence economy, both through the introduction of steel
tools and of the pax Australiana. The government did not, however,
intervene directly in the operation of the Orokaiva subsistence
economy; it was a very simple economy, but it provided, in general,
adequate nutrition and housing. The first time the Orokaiva subsistence
731 economy broke down seriously in the post-contact period was immediately
657 after the eruption of Mount Lamington. The government therefore decided
to offer some limited assistance towards the re-establishment of the
subsistence economy in the resettlement villages built when the
refugees left the evacuation camps. One requirement of the new villages
was a food supply until new gardens had been made and harvested. This
[241] requirement was met by the planting of a quick-growing variety of sweet
potato in villages in the vicinity of Ilimo camp. The government also
bought up any root crops the Orokaiva could supply and distributed
these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken
731 to introduce a few innovations which, it was thought, would improve
242 subsistence gardening in the resettlement villages. People were taught
the cultivation of the variety of sweet potatoes mentioned above, as
well as of corn, tomatoes and beans. Seeds and plants were supplied.
An agricultural officer demonstrated on a large scale the growing of
[412] sweet potatoes and peanuts. In order to facilitate the rapid establish-
ment of gardens--which the government hoped would be bigger and better
than the pre-eruption ones--small spades were distributed to villages.
These small spades were not a familiar implement to the Orokaiva, but
the agricultural officers thought they would be more efficient than
the wooden implements and large shovels hitherto used in villages.
These small spades cannot have taken on very well; I saw none in Sivepe
or Inonda. I myself had brought a spade for the garden I established
in Sivepe, but my neighbour, upon seeing it, at once supplied me with a
grubber (ex-American army stock). A very brief acquaintance with the
root structure of the garden weeds convinced me that a spade was indeed
[229] of limited utility. Finally, in order to add to the supply of protein
in the resettlement villages, the camp superintendent distributed some
snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption
731 would have destroyed taro seed stock, but this fear proved unfounded.
134 The taro plants remained perfectly healthy and the volcanic ash made
the soil amazingly fertile for awhile, so that food shortages were
quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed
731 according to a ration scheme based on the census figures. Each village
659 constable was issued with rations for the number of people resident in
the villages under his control. These distributions were continued in

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepa never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepa today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepa did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.
114 The question is an interesting one, but Sivepo does not
[489] provide a clinching counter-instance. Mr. Waddell's sample was taken
[423] entirely from the Jegase and Timunu clans, while he did not collect data on travelling time from the Seho clan. Now it is the latter clan which owns most of the land around New Sivepo, so that their travelling time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timunu) now have gardens very close to New Sivepo. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepo in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government: where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepo. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
14 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one
united big village. When the clans came over in 1959, they followed
the same pattern as the Sorovi immigrants followed in Sivepe: they
arranged their houses so as to maintain, in a subtle but unmistakable
way, their own identity. They formed in effect a second rectangle
which formed a harmonious continuation of the first rectangle but which
was separated by just half a chain. In 1966, the front and the back
half of Hohorita held separate feasts, each inviting a different
village. In 1967, the councillor made plans to clear the gap between
the two halves, remove the two old houses which emphasized the separation
and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves
in Hohorita, leaving their old village behind. I think it was they
[764] who filled the gap between the rows. The councillor had long been at
pains to close down the small villages of Sombou and Kakita and Sombou
[775] was finally persuaded after the death of an old migrant who had remained
a pagan. As he could not be buried in the Christian cemetery, and
people did not feel disposed to carry out the full involved ritual to
placate the ghost, they preferred to shift their village. (They thought
that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
hospital, three miles from the Higaturu Council chambers. The school,
conducted by the mission on Hohorita station, offers an education to
the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
● 433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had
appeared which were there for a special reason I have forgotten.
Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
were much better looked after, and there were far more of them. Every
[245] man had his coffee garden and an income of $100 per annum from coffee
was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were
permanently away working. The reason for this was that there are a
number of plantations quite close to Hohorita and those who needed
to work to pay off bridewealth, etc., could do so without going too
far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An
important resource of Hohorita, not shared by Sivepe, is the avail-
ability of good jobs within a reasonable distance; the fact that Hohorita
families do not break up in the same way as Sivepe ones indicates that
such separation is probably economically motivated. It is necessary
for a young man to earn his trophies, so to speak, which in the modern
world means money, but if he can do it without a prolonged absence
from home, he prefers staying home.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. History

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry. Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorota, Ivirunu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P. A. R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

[435] Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound. (1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places [466] where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

6: Crocombe E-4,5 (1965) 1964 0323 Orokaiva 0323

Table I

Production of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for ten years 1931 - 40[1]

Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Total	Yearly average
Weight (lbs)	9,630	22,652	67,470	60,645	61,425	123,000	127,000	171,585	187,300	163,319	994,036	99,404
Payout[2]	170	426	828	558	642	1,280	1,425	1,527	1,863	2,102	10,821	1,082
Pence per lb[3]	4.2	4.5	2.9	2.2	2.5	2.5	2.7	2.1	2.4	3.1		2 6

(1) Derived from Territory of Papua reports 1932 - 41.

(2) Net payment to producers in £ Australian.

(3) Calculated to the nearest tenth of a penny.

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Post-war community plantations (1945 - 62)

177 657 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth con- [466] siderably more than pre-war rates. However the military administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions 465 were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only [434] half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654] [435]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)[1] was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.[2] People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akûte'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ..;

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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434 Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

Chapter 4

The cash economy

a. Income and expenditure[1]

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

434 [583] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepo as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 454, pp. 107-108--Analyst]

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Table 6

Income of 12 households

Source	Amount (nearest $)	Total	Household range	Average
Paid work:				
Labouring	58			
Councillor	30	88	0-32	8
Sale of primary produce:				
Vegetables and tree crops, etc.	28			
Coffee	22			
Rubber	30	80	0-22	6
Social obligations:				
Bride price	78			
Gifts from local kin and affines	38			
Gifts from absent kin and affines	44	160	0-42	14
		328		28
Savings at start of year:				
Individual		198	0-62	16
Contributions to joint accounts		60	0-12	5

245 plots but agricultural officers intended to launch a campaign in
[654] the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 Not all receipts for sales of coffee from the sample plots had
[434] been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organisation of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepo and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepo and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasua and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepo neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepo. The growth of the
[245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

249 657 stood untouched for about 20 years. In 1944 Humphries (1944:4) reported that 'the trees grew to maturity with very litte attention from the natives and today they are being tapped for the first time'.

[434] In 1941 an agreement under the Transactions with Natives Ordinance (1893-1935) was made between a European planter recently arrived in the area and the villages with rubber stands, whereby he obtained exclusive rights to tap, collect and dispose of the produce of all the trees, while from 6 per cent to 12 per cent (according to ruling market prices) of the gross sum obtained by the lessee was to be paid to the owners every 6 months; in general this meant that the owners received 1 penny to 3 pence per pound. The contract was to extend for 5 years and the lessee was to have the option of renewing it for a further period of 5 years.

The arrangement became effective in 1941 but was interrupted by the Japanese invasion of the Northern District. In 1943 A.N.G.A.U.[1] authorized the lessee to return to restart production from the trees. Mann (1954:35) says that

> [433] during 1944, under the supervision of the rubber division of the Production Control Board, tapping of some 250 acres of those smallholdings was organized. During 1945 production was over one hundred thousand pounds dry rubber, indicating average yields of about four hundred pounds per acre.

249 433 311 Various estimates have been made over the last 20 years as to the size and number of the rubber stands in the area. Mann's figure of 250 acres contrasts with the lessee's estimate of 110 acres,[2] and with Humphries' assessment of about 80 acres. There were 95 stands with a total of 7,721 trees listed in the 1941 agreement but during 1943-5 a further 42 stands were added so that most of the available stands were then included in the scheme.[3] In 1951 Belshaw claimed that there were roughly 6,000 rubber trees in the 'Periho' tribal area within what was formerly the Kokoda District and another estimate about the same time put the number of trees in this wider area at 10,000. The annual report of 1959 stated that 26,000 trees 'in the Awala area' were tappable. A

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1 The Australian New Guinea Administrative Unit.

2 Assuming this estimate and the figure of over 100,000 pounds for 1945 production to be accurate, we must conclude that the average yields were more than twice those given by Mann.

3 It was reported by patrol staff that 'nearly all' the rubber stands were being worked from Awala in August-September 1943.

recent agricultural census listed 55 stands with 13,700 trees in the Saiho Census Division (which coincides roughly with the 'Periho' area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

The agreement between the lessee and the villagers was modified in 2 ways after the war. When the scheme was resumed in 1943 the Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

Until 1946 local villagers were employed by the lessee to tap their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

The Village Constables had been responsible for seeing that the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

249 A new marketing scheme was devised after 1946. Any villagers
177 who wished to tap their stands were provided with a tapping gouge
and spout, anti-coagulate, treesaal and latex bucket by the same
European planter. The tapper brought latex to the factory, was
given a receipt and paid at the end of the week according to the
[434] weight of the dry rubber of the latex brought in. This system
brought about a decline in tapping standards resulting in lower
net cash returns for the villagers and seems to have been part of
the background to their lack of enthusiasm for the lease noted by
patrol staff in 1948.

433 In mid-1949 a report from the Popondetta District Office stated
249 that all privately owned rubber areas were on the verge of closing
down; production costs were high and market prices had fallen
considerably.[1] The advent of the 'price-boom' later, caused by
the Korean war, coincided with the eruption of Mt Lamington and
the evacuation of the villages, and consequent cessation of
production.

[435] By 1954 when attempts to organize systematic production were
again resumed the market price had dropped to 5/6 d. per pound;
the planter proposed to issue daily chits for latex bought and to
pay cash at the end of every week. He offered the villagers, and
the Administration agreed to, a price of a shilling per pound dry
rubber content for all grades of rubber accepted. A system was
organized whereby he provided for the transportation of latex by
road from collecting points.[2] He arranged for the tapping of
alternate 'sections' every 4 to 5 weeks; the time interval was
dependent upon the density of the latex offered. Kongohambo was
the collecting point for one 'section' consisting of stands
between Kendata and Binduta; Koropata was the collecting point
for another section. Only 70 villages were still supplying latex,
mainly because of the accessibility. A report on native agricul-
ture in January 1956 noted that villagers had sold 3,600 lb. (dry
weight) of rubber for £180 in the previous 6 months. This was
produced from only 10 stands 'near Awala' and it was felt that
[435] other existing stands would probably not be brought into produc-
tion until roads were improved. By July 1958 the number of stands
had not increased but 6,000 lb. (dry weight) of rubber was produced
and sold for £300 in 5 months.

In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

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[1] The report seems inaccurate where it says that the fall in price led the lessee to terminate production. In fact production continued.

[2] Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] [438] [245] The areas of the gardens in which coffee was tried were too small to give satisfying returns.[1] The income of £11 earned by the sample by weeding, processing and marketing their coffee in 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty of rewards is reported to be common in most villages in this area. [245] However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.[2] Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

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[1] The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

[2] Figures from 1964 census, District Agricultural Office.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

794 not necessarily leaders in the old authority structure but often
177 people with particular experience of white rule (e.g., policemen).[1]
178 Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Cona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

178 The ending of inter-tribal skirmishing, which directly affected
657 the social roles of the sexes, also extended the physical range of
36 interactions open to individuals and resulted in the proliferation
[721] of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

241 From its beginnings the mainstay of government policy was the
[657] encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton,
[466] tobacco and rice were all tried; however, owing to a fall in prices,
[434] all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern
[433] Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 461 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

(i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the trees are self-sown. As well as lacking maintenance, in most cases

are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

(iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

Anglican mission stations frequently employ school-leavers as 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

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[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

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431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

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525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

762 [2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

249 245 [576] man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in clearing the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

361 Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

241 The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial [887] trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

434 Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

[454] The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

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[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 491, pp. 34-37--Analyst]

434 and the remainder in either shares or savings accounts. Four of
454 the eleven households had no monetary assets at this time, while six had no cash in hand.[1]

Table 4:5

Sivepe: monetary assets of households, January 1965
($)

Household no.	Cash	Savings bank	Shares OCCS	Shares Oro Ltd	Clan savings account	Total
1	24.00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

454 Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies,
[546] the OCCS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCCS declared a dividend of 5 per cent.

614 Two members of Timumu clan had contributed to a clan savings account which was supported mainly by clansmen in another village,
454 Soroputa. In 1964 it was decided to use the funds to establish a
443 trade store in that village. Even if implemented it is doubtful whether this store would be profitable, since Steamships Trading

[1] Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

[TEXT CONTINUED ON PAGE 47]

mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6,1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

[1] See pp.44-5.

[TEXT CONTINUED ON PAGE 79]

166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold nigoro (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. A closely related activity is church attendance, which occupies over an hour [796] a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

512 [461] holdings - his father's coffee plantation of over 100 trees was given to the eldest son - but intends to plant both coconuts and coffee. He sees cultivation of cash crops as preferable to working away from the village since the former guarantee a continuing minimum income, but he believes that paid employment while resident in the village is the best source of cash. After the end of the survey Paulus, Lawrence and two others obtained work in Popondetta, returning home each night. Despite his lack of formal education and holdings of cash crops, Paulus is generally recognised as second in status to the leading man, and when the leader refused to be nominated for re-election as local government councillor, he was asked instead. He was prepared to stand, but eventually declined because of his wife's disapproval. When Lawrence proposed individual working of copra it was Paulus who insisted, successfully, that it should be communal, on the grounds that the others had insufficient palms to make individual working worthwhile. However, having gained his point, he was prepared to leave the sale of copra and the operation of the village savings account to the leader.

[461] On average, Paulus is active for more time per week than any other villager and over 82 per cent of his time is spent on directly productive tasks. He is recognised as the most accomplished hunter in the village as well as being skilled at fishing and, together with sago-making, these food-producing activities account for almost one-third of his activity time. He frequently borrows a shotgun from Lawrence or from kin living nearby and from August onwards often took smoked meat or fish to market in Popondetta. As he has no cash crops his main sources of income are paid work, marketing and gambling, but only paid work consumes more than an average of one hour a week. Apart from the contract work, this includes work on the bridge over the Girua River during the first three weeks of the survey.

[434]

Although he spends more time on subsistence gardening than the cash croppers discussed above, Paulus spends much less in this work than the other non-cash croppers. Most time is spent in clearing and in planting and maintaining taro. He is one of the few with a significant number of yam vines, the crop occupying as much of his time as sweet potato cultivation. As is usual for men, harvesting consumes little time, except for sugar-cane and coconuts.

[462]

The only other subsistence activity that accounts for a noteworthy proportion of Paulus' time is construction. Although much of this was, in fact, on the copra-drier, he spent

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

432 (b) Monetary sector

438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivepa and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Awala to receive payment for coffee previously delivered.

434 (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.[1]

[1] But see p.203.

438 439 (iv) Storebought goods. Storebought goods account for 81 per cent of monetary acquisitions. Most originate from the external sector (trade stores) although alcoholic drinks together with a small quantity of food comprise purchases from other subsistence villagers at 'parties'. Only one instance of a disposal was recorded - a woman making a skirt at a mothers' union sewing class and selling it to another for the price of the materials.

Forty-six per cent of all purchases comprises foodstuffs and a further 9 per cent stimulants. Some of these can be considered luxuries in that they are largely superfluous to requirements. However, many dry season purchases, of rice in particular, are made specifically to supplement supplies from the subsistence sector.

The remaining 45 per cent of purchases consists of household and personal goods and equipment. Most of these are more basic to the economy: either their greater efficiency or durability has led to the elimination of traditional counterparts (as in the case of cooking utensils, axes and clothing), or they represent important technical innovations (as in the use of torches and guns for hunting).

(c) Cash

434 According to cash transactions effected during the survey, incomes amount to 40c per man-week or $21.02 per man-year, but 8.4 per cent of this amount originated from the researchers. If money from this source and bank transfers are excluded, a credit balance of $20.76 or a total income of $247.98 is recorded (see Table 10:3). Thus in a 'normal' year an adult's income would amount to $18.19 with a credit balance at the end of 74c, that is, he might save 4.1 per cent of his earnings. On account of the researcher's presence 16.9 per cent of earnings was saved in 1964. The majority enters, almost immediately, into circulation through either the gift exchange or the monetary system.

Table 10:3

Sivepe: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total	273.68	239.22
Including:		
Savings bank transfers	-	12.00
Transactions with researchers	25.70	-

434 Excluding the researchers' contribution to total income only 39 per cent is derived from the sale of cash crops and subsistence [431] produce, the bulk entering instead through the gift exchange system, largely in the form of remittances. By contrast, excluding bank deposits, 63 per cent of disposals takes place in the monetary system, principally as purchases of storebought goods, only a minority being distributed as gifts. In effect, therefore, the gift exchange system serves as the principal mechanism for the acquisition of cash, but only a minor part entering in this way is so distributed, income being used rather to purchase goods unavailable in the subsistence sector of the economy.

Seasonal variations in exchange patterns

438 (1) Subsistence produce (see Table 10:4 and Fig.10:2). Although no net movements of subsistence produce in or out of the sample are identifiable, other than those directed to the researchers, transactions do reflect the temporal pattern of availability of particular goods. Three broad categories are identifiable - continuous, seasonal and periodic. Of the main cultivated plants only the circulation of sweet potato is maintained at a constant level throughout the year, as it is more tolerant of dry conditions than the staple, taro. However, in terms of diet, its role is not important and in only two weeks did it constitute the major item of exchange.

During periods I and III taro predominates in transactions comprising 37 per cent and 32 per cent respectively of the total volume, but with the annual fall in production in the dry season it declines to 11 per cent, and breadfruit and sago replace it as the main exchange items with 35 per cent and 17 per cent respectively. [262] The production and distribution of these latter crops is almost entirely restricted to the dry season when they constitute the major part of the diet. The peak in breadfruit exchanges precedes that of sago, this being a reflection of both food preference and labour productivity. Only after the supply of the former has been largely exhausted is the labour intensive work of sago extraction resorted to.

Among the Orokaiva, as elsewhere in New Guinea, meat, in particular pig, provides the classic example of goods only periodically available. Although most pigs are exchanged ritually prior to consumption, the fact that a specific quantity of meat may change hands several times, commonly by a process of subdivision and partial redistribution, precludes any meaningful estimation of the level of consumption. It is nevertheless worth noting that on twelve weeks no transactions were effected and on only six did the total volume exceed 100 lbs. On two of the latter six weeks pig was the major exchange item, on a third the volume was only marginally exceeded by that of taro, while on all three weeks it accounted for more than one-third of all transactions.

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Table 10:6

Sivepa: the type and volume of labour services transacted during each recording period
(hours)

Activity	Period I hrs	%	II hrs	%	III hrs	%
1. Subsistence						
Clearing	67.8	8	61.8	7	35.9	7
Taro - plant	21.8	3	39.6	5	16.9	3
maintain	-	-	16.7	2	14.8	3
harvest	10.6	1	17.2	2	-	-
Yam - harvest	128.9	15	-	-	90.3	17
Coconuts - harvest	3.9	-	17.2	2	16.4	3
Sago-making	-	-	489.2	56	30.6	6
Hunting	-	-	36.5	4	31.2	6
Construction	328.1	38	152.9	17	21.6	4
Pig-carrying, butchering, etc.	32.2	4	8.0	1	136.2	26
Food-carrying	-	-	-	-	76.6	15
Miscellaneous	2.6	-	19.5	2	57.7	11
Sub-total: subsistence	595.9	69	859.6	98	528.2	101
2. Cash						
Coffee - harvest	54.4	8	-	-	-	-
process	205.1	24	3.3	-	-	-
Rubber - market	8.0	<1	-	-	-	-
Errand-running	6.3	<1	16.0	2	-	-
Sub-total: cash	273.8	32	19.3	2	-	-
Total	869.7	101	878.9	100	528.2	101

The exchange of labour services in the cash sector is significant only during period I. Associated almost entirely with the harvesting and processing of coffee, in themselves strictly seasonal activities, they account for 32 per cent of transactions, while, as a single activity, coffee processing is exceeded only by construction in the volume of labour services utilised. On account of the urgency associated with the processing of coffee, the circumstances in which assistance is rendered are essentially the same as for subsistence activities.

432 (434)

(iii) Cash crops. All sales of coffee were restricted to period II (following intensive production during the latter part of period I) when a mean weekly income of $9.72 was derived from them. Rubber sales were made in periods I and III when mean weekly returns of 33c and $1.11 respectively were obtained. In fact the pattern

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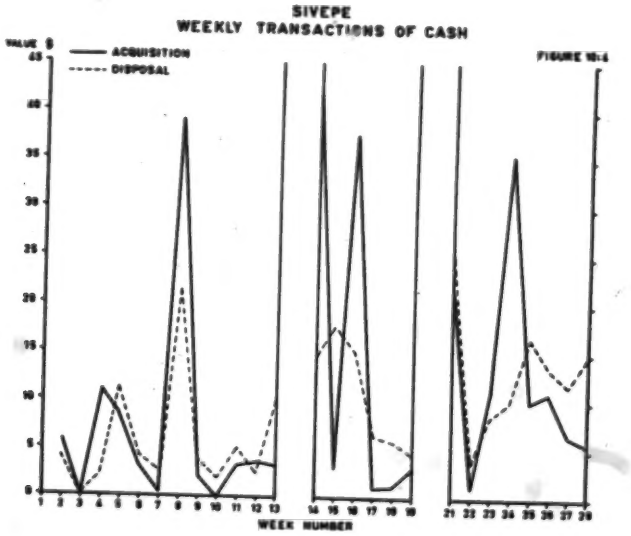
(v) Cash (Table 10:8 and Fig.10:4). The mean amount of cash acquired per week is greatest during period II when the main coffee sales are effected. However, since remittances were a major source of income, and these are received in a completely random manner, the weekly variations are far greater than the seasonal ones.

Table 10:8

Sivepe: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	6.80	15.05	12.87
	Disposal	6.04	10.68	13.13



434 For example, during period II the sample's income ranged from $1 in one week to almost $50 in another. Since the turnover of cash is rapid and little capital formation takes place, the pattern of expenditure closely parallels income, and exceeds it in the latter part of period III when the substantial demand for storebought foods for ceremonial activities is met primarily with savings accumulated earlier in the year. These major fluctuations in the acquisition of cash demonstrate the danger of villagers placing any great dependence on it at this stage of commercialisation of the economy.

The exchange patterns of households

437 512 Both the volume and variety of transactions vary considerably from one household to another, and can be related to specific differences in the resource base of each (see Table 10:9). Thus, there is a distinct movement of labour services within the cash sector from non-cash cropping to cash cropping households, of cash crops from the latter, of the produce of hunting from householders with direct access to shotguns (households 3 and 15), of cash to cash cropping households, and of storebought goods to those households with the highest incomes.

Cash croppers exhibit a much higher volume of transactions than non-cash croppers in all categories apart from subsistence labour services. As suggested by the figures for subsistence produce, this applies equally to transactions in the gift and in the monetary exchange system. As in activity patterns so with exchange: cash [555] croppers evidence a high level of participation in the traditional village economy. That is, cash croppers are industrious in work and generous in distribution, two qualities which generate respect and status both traditionally and in contemporary Orokaiva society.

The lower rate of disposal of subsistence labour services by cash croppers may be indicative of the greater premium they place on time and a preference for exchanging goods more abundantly available to them but, apart from in the processing of cash crops, there is little evidence that they exploit the system by drawing on unutilised labour from other households. However, it is worth noting that household 15, whose head is the most active male in the sample, does record a high incidence of such exchanges of labour, in particular of acquisitions.

Not only do particular households play an important part in regulating the flow of specific categories of goods, especially the scarce ones of cash, pigs and game, but there are broad variations between households in their general involvement in the exchange system. The bulk of domestic pig is handled by four households (1, 2, 13 and 14), with only very small amounts being distributed or redistributed to others. Some of the households headed by older people (6, 10 and 11) or which are only recently

592 established in the village (4 and 7) scarcely participate at all
437 unless they make specific efforts to obligate others to them or to settle existing obligations, as with 6 having a sago palm felled and 7 assisting his affines in subsistence tasks on numerous occasions.

The network of inter-household exchanges of these scarce goods and of services, even at the level of co-residents and close kin, suggests the system to be primarily a negotiated and exploitative [431] one with the ideal of communal interests and group security relegated to a subsidiary role. This dual aspect of exchange is exemplified in a statement of intentions made by the head of household 18 where, in distributing some sago, he proposed to make large gifts to three people 'because they are always quick to help me when I am in need of food' but smaller gifts would be made to others since 'it would be an insult not to share with other people when they see I have plenty of sago'. In fact the security with which older people are provided is of a low order if the volume of exchanges with others is considered.

Income and expenditure of cash over 46.5 weeks

● 434 The level of the Sivepe people's commitment to the external sector of the economy is demonstrated by their income and expenditure patterns. All households handled some money during the period from February 1964 to January 1965 and even household 4 which registered a gross income of only 50c during the period it was present, left the village with the specific object of seeking wage employment on a Sangara plantation (see Table 10:10). Cash croppers handle substantially more money than non-cash croppers but this fact is not simply a function of the agricultural activities of the former. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping.

As the single most important source of income, remittances rank with proceeds from the sale of cash crops and, for cash croppers, these two provide their main sources of cash. By contrast non-cash croppers derive over half of their income primarily from Sangara settlers and secondarily from other villagers[1] (see Table 10:11).

[431] The value of connections with wage earners and Sangara settlers is enhanced by the gifts of goods frequently associated with the

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[1] Some money is also obtained directly from the sale of cash crops. Two cases were recorded of quantities of coffee being given to non-cash croppers in acknowledgement of assistance rendered; while in a third a young member of a non-cash cropping household emulated his brother in exploiting the communal rubber planting.

A, [See Category 431, p. 205--Analyst]

434 money received from them. As demonstrated in Table 10:15, such
431 people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 3 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much
[436] the same manner - in effecting what are largely necessary exchanges with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the farmer to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others,
[556] while, of the five households with the highest incomes, the heads of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A, [See Category 437, p. 234--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Table 10:10

Sivepe: cash income and expenditure over 46.5 weeks, by household
($)

Household	Income	Expenditure	Net change to cash balances
1	95.99	63.80	32.19
2	78.57	61.00	17.57
3	79.92	60.49	19.43
4*	0.50	-	0.50
5	42.87	36.44	6.43
6	3.50	2.10	1.40
7**	12.50	12.30	0.20
8	11.75	10.62	1.13
9	62.35	60.29	2.06
10	17.50	5.80	11.70
11	30.90	21.83	9.07
12***	2.15	3.68	-1.53
13	58.75	45.49	13.26
14	21.98	16.63	5.35
15	77.08	67.82	9.26
Total	596.31	468.29	128.02
Mean per week:			
All households	0.99	0.78	0.21
Cash croppers	1.52	1.21	0.31
Non-cash croppers	0.36	0.26	0.10

* Surveyed for 6.5 weeks only. ** Surveyed for 27.5 weeks only.
*** Surveyed for 11.5 weeks only.

454 households, were recorded and each followed the receipt of a substantial gift or payment of cash. In the case of the first household, the head received a remittance of $12 in March from a brother and he immediately purchased shares to the value of $10 in Oro Ltd; in December he received another remittance of $10 from his sister's husband and immediately deposited $6 in his savings account, while a week later he received $10 from the husband of another sister and his wife deposited an additional $6 in the savings account. The head of the second household sold coffee to the value of $25.75 in July, depositing $10 of it in a clan savings account. The two households registered the second and fourth highest incomes respectively.

The irregularity of cash income, and therefore the need to hold cash against expected requirements, is undoubtedly an important factor in this apparent failure to accumulate capital. However, this consideration apart, it can be variously interpreted as, one, the inadequacy of income in relation to immediate requirements and demands from the monetary sector, two, a belief that there is no

[TEXT CONTINUED ON PAGE 207]

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Table 10:11

Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
Number of adults	19		16		35	
Man-weeks surveyed	751.5		509.5		1,261.0	
	$	%	$	%	$	%
Sources of income						
Cash crops	174.95	35	15.00	15	189.95	32
OCCS dividend	5.40	1	-	-	5.40	1
Paid employment*	18.90	4	2.25	2	21.15	4
Remittances**	162.50	33	3.80	4	166.30	28
Gifts and payments from Sangara settlers	0.40	-	33.60	33	34.00	6
Subsistence produce: marketing, hawking and casual sales	16.50	3	10.75	11	27.25	5
Sales to Administration	7.80	2	3.45	3	11.25	2
Gifts, loans and payments from villagers	47.05	9	25.40	25	72.45	12
Researchers	62.03	13	6.53	6	68.56	11
Total	495.53	100	100.78	99	596.31	100
Mean per man-week	0.66		0.20		0.47	
Directions of expenditure						
Trade store purchases	189.91	48	38.82	53	228.73	49
Mission (Mothers' Union) purchases	4.35	1	4.10	6	8.45	2
Marketing, hawking and casual sales	18.08	5	2.60	4	20.68	4
Fares, travel	12.00	3	0.50	1	12.50	3
Bank deposits/shares	32.00	8	-	-	32.00	7
Administrative agencies	4.00	1	-	-	4.00	1
Mission offerings	45.09	11	2.60	4	47.69	10
Local Government Council tax	28.00	7	14.00	19	42.00	9
Gifts, loans and payments to villagers	57.90	15	10.34	14	68.24	15
Gambling losses	4.00	1	-	-	4.00	1
Total	395.33	100	72.96	101	468.29	101
Mean per man-week	0.53		0.14		0.37	

* Including local government Councillor's salary.
** Including gifts from wage earners in District.

178 there are those indigenes who have moved temporarily or permanently
166 away from the village economy - to take up blocks of land as ex-servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly
[434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home
[465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees
[434] and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather
[438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The major part is received from Inonda people but a significant proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above[1] between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

(iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

[1] Page 235.

B: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Table 11:12

Inonda: cash income during the whole survey period and rank of households

Household	Rank	Income in $
23	1	147.72
20	2	41.44
24	3	41.30
21	3	39.40
16	4	38.50
17	4	16.40
22	4	10.60
19	2	1.50
18	4	0.50

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and his generosity with his main resource, labour. Household 16 is grouped in the lowest rank although its income level is in the same order as people in the second and third ranks. A further complication is that household 24, though accorded a relatively high rank, has a comparatively low rate of expenditure, particularly in the form of gifts of either cash or storebought foods. Allowing for these factors, however, it seems that the qualities that gain respect for an individual within the traditional village sphere of operation also tend to be those that encourage the acquisition of cash.

Income and expenditure of cash over 47 weeks

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The figures in Table 11:13 represent current income from all sources, including withdrawals from savings accounts and all expenditure, including deposits in savings accounts. Unlike the data for other items of exchange, details of income and expenditure of cash were collected not only for the three recording periods but also for the intervening weeks. Although this subsidiary data may be rather less accurate than the rest, it has been taken into consideration in some of the tables below and thus provides a record of cash transactions over 11 months, from February 1964 to January 1965.

Table 11:13 shows the total income and expenditure of cash per household over 11 months, including the coffee season, and reveals that there is a net inflow of cash amounting to $72.96 for the village as a whole or $8.12 per household. In fact, however, both income and expenditure vary widely between households. Also, the income of households 16, 21 and 23 includes withdrawals from savings accounts and the expenditure of household 23 includes a deposit in his account. Household 23 has the highest income with $235.42, which is 43 per cent of the total for all 9 households, but its expenditure

Table 11:13

Inonda: cash income and expenditure over 47 weeks, by household ($)

Household	Income	Expenditure	Net change to cash balances
16	78.62	73.84	4.78
17	26.38	24.20	2.18
18	4.30	4.90	-0.60
19	1.70	2.50	-0.80
20	66.94	64.12	2.82
21	48.60	41.56	7.04
22*	10.60	14.64	-4.04
23	235.42	230.38	5.04
24	76.90	20.36	56.54
Total	549.46	476.50	72.96
Mean per household	61.06	52.94	8.12

* Figures for February 1964 to May 1964 only.

is also highest. Income and expenditure by household 23 related to the trade store are not included in these figures. During the period, income from the store amounted to $185.20 and expenditure on supplies, at wholesale prices, to $177.58; most of this expenditure was for goods purchased on credit in the first few months of operation.

The trade store began operating on 25 October 1963. Up to 3 January 1965, total payments for supplies were $264.50 and total income from sales was $368.78, giving a gross profit of $104.28.[1] Deduction of $6 for a trading licence yields a profit of $98.28, at a rate of $7.02 per month. This rate is little more than half that earned through casual labour, but the returns per hour are very much higher (see Table 13.2), since operation of the store did not consume a very large proportion of the working day (except for journeys to Popondetta to collect supplies). Over the survey period, the average time spent daily on the store was little over one hour. The owner thus had considerable time available for other tasks, which is not true of those engaged in wage labour. Judging by the comments of the managing director of Oro Limited,[2] he is quite successful by the standards of Orokaiva-owned stores. For a period, early in 1964,

[1] Stocks remaining at 3 January 1965 were small and, in the researcher's opinion, almost worthless. They have, therefore, been written off for the purposes of this account.

[2] Personal communication.

444 it was not only the closest store for some 100 people, but it was also regularly patronised by passers-by and labourers on the main road.[1] For this reason, during the first 13 weeks of the survey sales averaged $10.70 a week, but over the whole period, from February 1964 to January 1965, the average was only $4.20.

472 434 The head of household 23 engaged in a number of other profitable entrepreneurial activities during the survey and the income from these is included in Table 11:13. He received $42 for organising the construction of the researchers' house; this sum was immediately used in the purchase of a shotgun. During period III, the same man organised a labour gang of fellow villagers to construct a shelter at the airstrip on contract from the Administration. For this, he received $72, of which he paid $36 to the other six men. At other times during the year, he received $20 for hardwood trees sold to the Administration, $4 for interpreting at polling booths during the House of Assembly elections and $10 from the Electricity Commission for locating steel pipes and oxy-acetylene cylinders abandoned in the grasslands after the war. (Two other men found and carried the pipes to the road at the entrepreneur's suggestion. They received $3 each and he received $8!) In addition to these sources not open to people with less experience and self-confidence, the same man acquired significant sums from sales of meat, coffee and copra and from gambling. Two fellow villagers gave $2 each and another gave coffee worth $3.32 as contributions towards the purchase of his shotgun. The wife's contribution to the household income was comparatively small at $6.90, of which $4 comprised remittances from kinsmen in Port Moresby.

511 About 62 per cent of this household's expenditure was in retail purchases from trade stores - one-third of this figure being represented by the shotgun and the rest mostly by food and clothing. The bulk of the other expenditure was in payments to the villagers who formed the labour gang. Eight dollars was spent on gun and trading licences and $2 on a fine for taking sago leaves without the owner's permission. Only about $12 (5 per cent) was disposed of in gifts to relatives. Overall, income exceeded expenditure by only $5.04, more than $3 below the village mean.

434 Household 24 has the greatest excess of income over expenditure with $56.54. Its gross income was $76.90, of which $32 were remittances from kin working outside the district, $10 was a teacher's pension from the Anglican mission and $10 was a belated payment from the Administration as a share of rice sales by Hohorita village co-operative society in 1949 and 1950. Seventy per cent of the household's expenditure was in trade stores and almost 10 per cent was in casual purchases from hawkers. The surplus cash was not

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[1] See p.61.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

deposited in the savings account but was kept as cash-in-hand. None of the household's expenditure was in the form of gifts; most was in impersonal transactions and the rest in commercial exchanges with village people.

Household 16 has a slightly higher income than household 24, but three times the expenditure, so that its excess of income over expenditure at January 1965 was only $4.78. The main sources of income were sales of coffee, marketing and labouring. The wife's mother received 10 per cent of the household income in the form of gifts from close kin.

Household 20 also has a comparatively high level of income and expenditure and an excess of income of only $2.82. Just over one-half was from gambling and a further one-sixth from marketing; this household has no cash crops.

Household 21, which is establishing coffee but derived no income from cash crops, has a gross income of $48.60 and an excess over expenditure of $7.04, which was the second highest in the village. This was derived from a wider range of sources and was more evenly distributed among them than the income of most other households. Over one-fifth was received in gifts, mostly from the wife's relatives, many of whom are wage earners.

Household 17 owns 107 coffee trees but sales of coffee were less important as a source of its income than labouring, even though labouring on the main road occupied only one week early in the survey and labouring on the contract gang ten days during December. Expenditure by households 16, 17, 20 and 21 was mostly on tax payment and store purchases, but 17 per cent of the expenditure of household 20 and 5 per cent of household 21 comprised gambling losses.

The remaining three households had a low level of income and an excess of expenditure for the eleven months. Household 18 received its entire income as gifts from wage earners and fellow villagers, as did household 19, apart from a small sum from the researchers. Expenditure was exclusively in purchasing, but the widower (household 19) lost $1 while washing his clothes in a stream. Household 21 was present for only the first 13 weeks of the survey. Its income was derived from labouring for a settler on the Girua block and from sales of subsistence produce to villagers. Expenditure, which exceeded income by $4.04, was mostly in trade store purchases. The household head did not pay the council tax and was later jailed for three months. After leaving Inonda, he continued to work occasionally for settlers but no details of his income were collected.

The majority of cash transactions are with organisations: this applies to expenditure even more than to income. Many of the transactions with villagers represent payments for specific goods and services that are usually related to the cash sector, such as

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

511 assistance in picking coffee, rather than to the traditional net-
434 work of exchange. The relative significance of the different
[437] sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

434 It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCGS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the
[431] entrepreneur account for 19 per cent of total village income. Some $43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent
[525] of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the $16.50 received by cash croppers from wage earners within the District, $14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

Table 11:14

Inonda: patterns of income and expenditure over 47 weeks, by cash cropping status

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	Cash croppers		Non-cash croppers		Total	
No. of adults	11		10		21	
	$	%	$	%	$	%
Sources of income						
Cash crops	46.60	12	-	-	46.60	9
OCCS dividend	5.60	1	-	-	5.60	1
Subsistence produce: marketing, hawking and casual sales	45.64	12	16.30	10	61.94	11
Withdrawals from savings	26.00	7	-	-	26.00	5
Paid employment	29.40	8	26.40	17	55.80	10
Contracting and sales to Administration	106.00	27	-	-	106.00	19
Mission pension	-	-	10.00	6	10.00	2
Remittances	4.00	1	36.00	22	40.00	7
Gifts from wage earners in District	16.50	4	18.80	12	35.30	6
Other gifts, loans, and payments	48.82	13	18.50	12	67.32	12
Gambling winnings	12.26	3	34.04	21	46.30	8
Researchers	48.20	12	0.40	-	48.60	9
Total	389.02	100	160.44	100	549.46	99
Mean	35.37		16.04		26.16	
Directions of expenditure						
Trade store purchases	223.52	60	62.08	58	285.60	60
Market and hawkers	2.80	1	7.14	7	9.94	2
Deposits in savings accounts	16.00	4	-	-	16.00	3
Payment of labour	36.00	10	-	-	36.00	8
Local government council tax	36.00	10	8.00	7	44.00	9
Gambling losses	3.50	1	13.50	13	17.00	4
Administrative agencies	11.20	3	-	-	11.20	2
Gifts, loans, repayments and loss	28.60	8	14.70	14	43.30	9
Other payments for services	1.42	-	0.10	-	1.52	-
Researchers	10.94	3	1.00	1	11.94	3
Total	369.98	100	106.52	100	476.50	100
Mean	33.63		10.65		22.69	

438 exclusive. Representatives of the external agencies were, for this purpose, grouped in a single category as 'organisations' (for example, the local government council, the army, the markets and trade stores). The term 'subsistence villager' includes those growing cash crops.

Table 11:18 shows how transactions of each category of goods and services are distributed among partners according to their occupational category. Items which deviate significantly (in most cases between 10 and 15 per cent) from the mean for their respective categories are shown separately.

As might be expected, the dominant position of villagers in exchanges of subsistence items is clear. For several items they account for 100 per cent of the total, although in the case of Xanthosoma only 34 per cent was acquired from this source. One household received several large gifts of the tuber from a New Guinea plantation labourer it had befriended, while some was also purchased at Popondetta market. Other noteworthy deviations include fish and game where significant quantities were sold at the market or given to settlers. In fact 34 per cent of the subsistence produce disposed to settlers comprised pigmeat, due, specifically, to a villager hunting on behalf of a relative on two occasions.

439 In contrast to the subsistence items, only a minority of non-traditional acquisitions is from villagers. Disposals of such items are smaller than acquisitions and only in a few cases - rice, tinned fish and clothing - is the total value above $6. Most disposals, particularly of food, are to other villagers. Most (over two-thirds) of the non-traditional items are acquired from trade stores (organisations). However, other people make significant contributions of some items: wage earners provide over half the alcoholic drinks, half the salt and considerable proportions of the rice, tinned fish and meat, and cigarettes, while the settlers are also a minor source of foodstuffs. The villagers clearly derive considerable benefit from the continued operation of the gift exchange system with these people, but most particularly with the wage earners who participate more fully in the monetary economy than settlers.

437 As regards labour services, almost all acquisitions are from subsistence villagers. Disposals in the subsistence sector naturally go largely to other villages although some help is given to settlers. In the cash sector, one-fifth of the labour services goes to settlers but none is received from them.

437 Most cash transactions are effected with organisations (52 per
434 cent of acquisitions and 77 per cent of disposals) but exchanges with other villagers are of secondary importance. Settlers and wage earners also play an important role as sources of cash. The largest item in transactions between villagers consisted of $36 paid out by the entrepreneur to the six men who worked for him on

[TEXT CONTINUED ON PAGE 268]

the construction contract. Most of the rest was exchanged as gifts or loans. Nine dollars was received from settlers as wages, the rest as gifts or loans. Most of the money received from wage earners was in the form of gifts from kin or friends, but a small amount was acquired early in the survey by the sale of coconuts and bananas to road-workers. Gambling winnings accounted for half the money received from settlers, and wages a further 25 per cent. A total of $12 was received by two people in remittances from a kinsman working in Madang. Acquisitions of cash from organisations are mostly in the form of payments by the Administration for goods and contracts, wages from the road-construction company and receipts from marketing, while disposals consist mostly of payments to trade stores and council tax.

In summary, it may be said that the bulk of exchanges of subsistence produce are with other villagers, except for sales of certain items at market and generally small exchanges with settlers retaining firm links with their village-based kin. Transactions of cash and storebought items are largely confined to organisations, other villagers and wage earners in the Popondetta sub-district. Labour services are almost wholly with other villagers, apart from a little assistance given to settlers.

The geographical dimensions of exchange (see Maps 2 and 5)[A]

(i) Subsistence produce. Tables 11:19-24 show the locations of partners (whether people or organisations) with whom Inonda people engaged in transactions during the survey. Most are villages, but they also include plantations, settlement blocks, mission stations and isolated trade stores. Tables 11:19 and 11:20 present the information for transactions of subsistence produce and reveal that almost two-thirds of acquisitions come from within the village itself and a further 25 per cent from people living within a radius of two miles. Seventy-one per cent of the disposals are to Inonda villagers and a further 18 per cent to people within two miles' radius. People or organisations (particularly the market) at a distance of five miles or more account for 11 per cent of both acquisitions and disposals. The distribution reflects primarily the closeness of contacts with kin, most of whom (apart from affines) live within two miles of the village at Ajoro (which moved its site during the survey and changed its name to Hahemo), Ijika, Hosou and the Girua settlement block. The relationship with the road construction workers' camp at Evundo followed the marriage of an Inonda girl to a New Guinean labourer. Links with places at a greater distance are also almost exclusively based on kinship. Several households have consanguineal ties with Sewa and Urio villages; two households in particular maintain close contacts with relatives in Ururu, Popondetta and Hohorita and another household with the wife's kin at Sangara plantation and in Kendata village

[TEXT CONTINUED ON PAGE 270]

A. [See Category I02, pp. 8, 52--Analyst]

people, however, are almost entirely in the gift exchange system and conform more closely to the pattern of disposals of garden and forest produce. They include the sale of copra to the co-operative society at Oro Bay.

(iv) Cash. As with storebought goods, most cash is derived from Popondetta (see Table 11:24), largely in payments from administrative agencies for goods or labour. Over half that acquired from Inonda represents payments by the entrepreneur to those who worked on his contract. Similarly, acquisitions from Evundo and the Girua block are also in the form of payments, from employment by the construction company and a settler respectively. The money from Oro Bay was from the sale of copra. Other cash is in the form of gifts, the main sources being villagers in Inonda and wage-earning kinsmen in Ururu, Popondetta, Saiho and Madang. Since expenditure is directed primarily to trade stores, the pattern of disposals of cash is very similar to that of acquisitions of non-traditional goods. Most goes to stores in Popondetta; disposals within Inonda include the payments to labour, purchases at the trade store and gifts. Payments of tax to the Higaturu Local Government Council account for over one-tenth of all cash disposals. Transactions of significant sums of money are restricted to people or organisations

Table 11:24

Inonda: the geographical distribution of monetary transactions

	Acquisition		Disposal	
	Total $	Per cent	Total $	Per cent
Inonda	61.80	18	88.52	26
Ijika	3.10	1	9.10	3
Girua block	38.80	12	5.04	1
Mosou	4.94	1	5.60	2
Sewa	4.10	1	0.50	-
Evundo	17.20	5	28.06	8
Urio	-	-	5.92	2
Popondetta	169.40	50	152.30	45
Ururu	14.50	4	4.20	1
Jegerata	2.00	1	-	-
Saiho	4.00	1	-	-
Higaturu	-	-	38.00	11
Madang	12.00	4	-	-
Oro Bay	2.32	1	-	-
All other places*	3.20	1	3.46	1
Total	337.36	100	340.70	100

* Six in all for acquisitions; 8 in all for disposals.

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

434 184 Per capita, the Inonda people handle more than twice the amount of cash and storebought goods as do those in Sivepe. Furthermore, there are important differences in their respective income and expenditure patterns. In Inonda cash is derived from a wide range of activities, among which cash cropping is only of minor importance. Contracting and sales to the Administration provide the single most important source, accounting for almost one-fifth of total income. In Sivepe almost two-thirds (60 per cent) is derived from cash cropping and remittances. In both villages, but more particularly in Inonda, cash is acquired on a very irregular basis. Even with coffee, for which there is a defined buying season of about seven months, there are seldom more than three or four opportunities to sell and the villager has no way of predicting when these will occur. This, perhaps more than actual size of income, is a major determinant of expenditure patterns, making both budgeting and capital accumulation hazardous.

439 184 At Inonda, with its higher per capita income and fewer formal demands placed on it,[1] more is spent in trade stores than at Sivepe, yet this expenditure is distributed over a similar range of commodities. In both cases foodstuffs and stimulants account for almost two-thirds, with the balance being spent on a wide range of cheap clothing, household goods and tools. Little of this expenditure is of a 'luxury' nature for, among foodstuffs, flour in Inonda and rice in Sivepe are purchased either wholly or largely during the dry season to supplement the shortage of subsistence foods, tinned fish and meat serve partially to compensate for a general inadequacy of protein in the diet while, among other goods, cartridges, torches and batteries in Sivepe are purchased to improve the efficiency of hunting.

434 184 The excess of income over expenditure in Sivepe is also higher than in Inonda, as is the amount of investment in shares and bank deposits, suggesting that the larger incomes at Inonda are associated with a more rapid turn-over of cash. Even the entrepreneur there, who accounted for almost half (43 per cent) of his village's total income, registered a net credit at the end of the survey of only $5.02 on his household's cash balance. Only he, among all the villagers in the two samples, purchased a major item of capital equipment during the survey - a shotgun costing almost $50. This followed a cash payment of $42, for organising the construction of the researcher's house, rather than an extended period of saving from income.

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[1] The villagers did not contribute to the Papuan Church Fund during 1964, an item which accounts for 10 per cent of total expenditure in Sivepe and exceeds LGC tax payments in importance.

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Table 13:1

Some returns to labour from established cash crops

Crop	Village	No. of sales	Total hours worked*	Return (in cents per hour) Range	Mean
Rubber	Sivepe	3	112.3	9-15	12
Coffee	"	5	727.4	6-13	9
Copra	Inonda	1	30.7	-	8

* Harvesting, processing and marketing.

account of the limited amount of labour-time required to coagulate rubber in the village, when compared with the preparation of parchment coffee or copra. The differences are, however, slight and the return from coffee is inflated on account of the significant labour contribution made by children in pulping being disregarded, while the figure for copra refers to an initial attempt at production and efficiency is likely to have increased subsequently. Although rubber is generally recognised to be an 'easier' crop at Sivepe, estimates of commercial trees within the sub-district do not suggest any widespread preference for it,[1] and cash crop preferences appear to be placed on considerations other than that of the return to labour.

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Coffee is the most widely-planted tree, partly no doubt because of encouragement by DASF, but also because it has a much higher value per unit weight than the others, being marketed for 18c per lb. Rubber, as coagulum, markets at 5c per lb and copra and cocoa at about 3c. This higher intrinsic value is extremely important in the prevailing marketing situation where cash crops must normally be carried some distance to the point of sale. Furthermore, not only does the seller of rubber or copra receive a lower gross return per man-journey (see Table 13:3), but his net return may be reduced through repayment for transporting these bulkier crops to the point of sale.

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Cash cropping is only one of several important sources of income and, in Inonda, it is comparatively insignificant. Although it can generally be presumed that the principal reason for embarking on cash-producing activities is the acquisition of money,[2] an investigation of comparative returns to labour does not provide an entirely satisfactory explanation for the status of commercial crops.

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[1] See p.18.

[2] In the case of medical work at Sasembata mission and labouring for settlers, the acquisition of cash is certainly not the sole or even main motive. See pp.30-1, 93.

A, [See Category 461, pp. 30-31; Category 797, p. 93--Analysis]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0123 Orokaiva 0123

Table 13:2

Some returns to labour from cash-producing activities other than cash cropping

Activity	Village	No. of payments	Total hours worked	Return	
				Total ($)	Per hour ($)
'Marketing' pig	Sivepe	1	4.8	8.15	1.70
Contracting	Inonda*	1	54.2	36.00	0.66
Sale of timber	" *	2	56.8	20.00	0.35
Labouring, for army	"	6	7.2	2.40	0.33
Operation of trade store	" *	0	6.2 per week**	1.59 per week	0.26
Election work	" *	1	21.8	4.00	0.18
Gambling	"	8	95.0	11.30	0.12
Labouring, for contractor	"	6	323.1	36.00	0.11
Marketing fish and meat	"	19	272.7	25.70	0.09
Marketing produce	Sivepe	11	100.3	9.45	0.09
Labouring, for settler	Inonda	2	199.7	9.00	0.05***
Labouring, for road construction	"	2	157.5	8.40	0.05
Contracting	Sivepe	1	271.2	6.00	0.02
Medical work	"	1	53.7 per week	0.26 per week	0.05

* Indicates activities only undertaken by the entrepreneur at Inonda.
** All rates per week are expressed as means.
*** In addition to cash, the labourer received at least one meal of taro or rice a day.

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434 As shown in Table 13:2, returns vary greatly, with some of the most favourable activities being pursued only by the entrepreneur in Inonda - a man who profits greatly by his personal contacts with a number of expatriates. By far the highest returns are obtained from marketing pig within the village, but dictates of custom restrict the frequent practice of this. While 'establishment' costs - in the sense of rearing pigs, growing produce, seeking contracts and employment, etc. - have been disregarded in estimating these returns they are, at the present stage of development, very low and often 'hidden' by subsistence sector requirements. Pigs are reared and garden produce grown as a part of the subsistence routine and their marketing is largely incidental; the decision to market wild game may only be taken after a successful hunting expedition; and the entrepreneur is well-known to the Administration as a reliable and resourceful individual and is often approached first about contracts.

The proliferation of cash-producing activities suggests one of three possibilities: that any single source of income, such as cash cropping is by itself inadequate; that cash cropping is not considered the best source of income; that demand exceeds the income from any one source. While opportunities vary greatly from one individual to another, the question of choice between individual activities seldom arises since many occur so irregularly that they cannot be considered reliable sources of income.

Two main considerations appear to determine preferred means for the acquisition of cash: firstly, reliability of income, and, secondly, size of individual cash payments. Each bears some relationship to the criterion of returns to labour but distinctive elements are also incorporated. An established demand for cash implies the need for a regular income and, among the range of activities, only cash cropping and the marketing of subsistence produce can provide this for the majority of villagers. If establishment costs are taken into account returns from the latter are higher, while its complete adjustment to the agricultural routine
[435] renders it a more suitable activity for the subsistence farmer. However, the value per unit weight of garden produce marketed at Saiho is, at 2c per lb, insufficient to elicit serious interest in Sivepe, while its perishability, relative to cash crops, is an added deterrent. The unit value of smoked fish and meat sold by the Inonda people at Popondetta market is much higher (20c and 10c per lb respectively) but there are likely to be social pressures operating against the too-frequent commercial exploitation of these village resources: an opposition somewhat similar (in terms of the
[431] utilisation of a scarce resource for personal gain) to that voiced in Sivepe to the sale of domestic pigmeat. While such an attitude was never overt during 1964 it serves as a partial explanation for the fact that individuals often distributed game through the gift exchange nexus when they could have sold it at the market.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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[461].

At Inonda there is a generally expressed preference for wage employment. Compared with most other activities, returns in this are less, but a weekly income is assured. By contrast several hours may be spent in hunting or fishing and marketing with little or no return, and gambling may result in loss. Shortly after the end of the survey four men from Inonda obtained employment in Popondetta, involving a ten-mile journey to work each day. At the normal wage rate for casual labour the returns would be particularly low, while full-time employment would also make it difficult for them to maintain their food gardens. Although some men are able to call on young men from other villages to assist in garden maintenance,[1] this is not always possible and married men often need to leave their jobs to fulfil obligations in the village and embark on a period of intensive garden work.

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Capital formation and investment and the utility of money are matters of immediate concern to the villager who participates in the cash economy in order to raise his standard of living. Trade store stocks are restricted to cheap consumer goods which give the purchaser little lasting satisfaction. Earnings are so small that once major commitments such as council taxes are settled, what remains is often sufficient only for minor purchases. Facilities for the effective saving of cash are inadequate; people are unwilling to walk several miles to deposit small sums at a savings bank agency, and money held in the house is immediately available for casual demands. This unsatisfactory situation is an inevitable feature of a predominately subsistence economy. For this reason villagers appear to place some importance on the size of individual cash payments regardless of the labour input involved, for, the greater the sum, the greater the potential utility of the money. It is in this context that the particular significance of remittances to the Sivepe economy can be understood. All important instances of capital saving and investment in the two villages followed receipts of large sums of cash.[2]

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The pre-eminence in Sivepe, in terms of size of cash payments, of sales of coffee, pigmeat and remittances is shown in Table 13:3. In spite of the considerable price fluctuations which may occur, coffee is the only one for which there is any degree of reliability of income. The position of pigmeat in terms of size of payment and of returns to labour explains the very considerable temptations evidenced in Sivepe to 'market', while the small payments for rubber, which are a direct function of its low value per unit weight, provide a partial explanation for the failure to develop it further as a cash crop, in spite of its relatively high returns to labour.

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1 See Crocombe and Hogbin 1963:64.

2 See pp.204-5 and 256.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 13:3

Sivepe: mean size of individual cash acquisitions from major sources

Item	No. of occasions	Income (in $) Total	Mean
Sale of coffee	13	159.95	12.30
'Marketing' pigmeat	2	18.15	9.08
Remittances (from outside the District)	17	153.00	9.00
Sale of rubber	5	23.70	4.73
Payment for work on settlers' blocks	7	32.60	4.66

Note. The differences between Tables 13:1 and 13:3 in number of sales of coffee and rubber recorded are explicable in terms of the availability of appropriate data on labour inputs.

433 The overall pattern of involvement in the monetary economy covers a wide range of cash-producing activities but suggests only a limited commitment to cash cropping itself. Although the productivity of these crops could be readily increased the villagers do not seem greatly interested. In part they are deterred by marketing difficulties, but of equal importance is a cautiousness founded on past experience. Rimoldi (1966:101) remarks:

> The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital.[1]

The history of cash cropping among the Orokaiva is extremely chequered and is reflected in a continuing unwillingness to be committed to it as the principal source of income. Instead, more of an opportunist approach to money is adopted, and this may involve taking work where the returns are extremely small.

461 Although Crocombe and Hogbin (1963:83) have suggested that considerable increases in agricultural output could be effected without the introduction of capital, the villagers themselves consider major investments to be an essential concomitant of such increases, if only in order to demonstrate to others the advances they have effected. Preference is therefore placed on activities characterised as much

[1] See also Crocombe and Hogbin 1963:82.

Postscript

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Since this report was prepared, we have received news of some interesting developments bearing on the above conclusions.

In 1967 cattle-rearing projects were established under Administration sponsorship and guidance in several lowland Orokaiva villages, including Inonda. The Inonda people have sown and fenced several acres of pasture for ten cows, all of which are calving. The need for cash to buy fencing materials has stimulated several subsidiary projects. Peanuts, which are sold to the Department of Education, are grown on three acres of grassland ploughed by a [434] hired tractor. Three families have piggeries and one earned $108 from one sale of young pigs during 1968. Another family is starting a chicken farm. Money is also raised from sales of copra, fish and food garden produce. In addition, six of the villagers and two kin from outside have subdivided an area of forest land into 20-acre blocks which are being prepared for planting cocoa and coconut trees. Our informant in Inonda acknowledges the great help received from the Department of Agriculture in encouraging and assisting in these projects.

It seems that the cattle projects were established in villages containing people known to the Administration for their entrepreneurial abilities. It is not known whether similar developments are taking place among the Mt Lamington Orokaiva.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to [435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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178 point at Ononda bridge. Production details for the two occasions observed are given in Table 1.

Table 1

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434 Yega Scheme cocoa production and growers' income on two occasions

Name	Picking of 1 July 1964				Picking of 29 July 1964			
	Picking	Pods*	Net wt. lbs.	Amount received $	Picking	Pods*	Net wt. lbs.	Amount received $
Wilfred	3rd	86	16	0.40	4th	?	5	0.12
Timothy	3rd	810	143	3.58				
Dick Shepherd	3rd	519	116	2.90	4th	400	103	2.58
Ethelbert	2nd	205	45	1.12				
Livingstone	2nd	408	79	2.08				
Spencer	2nd	136	30	0.75				
Wilson	1st	123	21	0.52	2nd	34	3	0.08
Needham	1st	96	16	0.40				
Reginald	1st	62	18	0.45				
Roy	1st	14	3	0.08				
Geoffrey	1st	60	12	0.30				
Randolph	1st	36	8	0.20				
Hubert Murray	1st	176	30	0.75				
John Livingstone					3rd	?	50	1.25
Bruce**					?	250	56	1.40
Aubrey					3rd	103	27	0.68
Faithful					4th	410	83	2.08
Dewhurst					1st	50	9	0.22
Total		2,731	537	13.53		1,247	336	8.41

*Average 100 pods for 21 lbs wet beans; average beans per pod is 31 (count of 13 pods selected at random).
**Bapa man, not member of Yega Scheme.

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178 Incentives and income distribution

The Yega Scheme provided the middle-aged men in particular with an opportunity to increase their incomes. The younger Yega men working for wages away from the village were not attracted back home by the prospects of cash crop planting. Only one unmarried man left his job (in the police force) to return home and obtain a block in the scheme.

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

434 each Saturday morning doubled in the 18 months prior to this study
438 but still only about 15 families per week sent in produce for sale.
Larger numbers of Yega attended on Saturdays following the fortnightly administration pay day than on the alternate Saturdays. Cash income obtained by Yega also more than doubled in the same period (from a weekly average of $1.35 per participating family in January 1963 to $2.80 per family in July 1964).

434 iii. Gifts from relatives in paid employment. In 1964 this was
431 the main source of cash income of most Yega villagers. Almost invariably the young men in paid employment sent monetary gifts home to their relatives in the village. A sample group of 18 such workers earning an average $610 per annum in cash or kind remitted an average of $90 per head per annum to their relatives in the villages.

434 iv. Gambling. As gambling is illegal, people were reluctant
525 to divulge details. Nevertheless, for some men gambling constituted an important source of income. The stakes in domestic games of 'Lucky' were usually betel nuts, but in games with outsiders always cash. Yega gamblers aimed particularly to relieve the workers on nearby plantations of their wages. On one observed occasion a Yega man won $86 in one night in such a game.

434 Sources of additional income for two sample groups are summarized in Table 3 below:

Table 3

Additional sources of cash income of Yega villagers during 1962

(431)

Classification	Personal effort	Gifts	Other*
Holders of cocoa blocks (sample of 25)	8	17	2
Non-holders of cocoa blocks (sample of 14)	8	9	Nil

* This includes savings and gambling (one informant in each). Some persons received income from two sources.

434 The holders of blocks received more gifts than non-holders of
431 blocks. The main reason for this is that most blockholders had sons or brothers of working age. Many of these worked in paid employment and, by making gifts to blockholders, were ensuring reciprocity of gifts in the future. Table 3 shows only gifts received by people living at home. Monetary gifts were rarely given by the village people but when the 'outside workers' returned for holidays in the village they were fed, boarded and feasted free.

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[614] The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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461 Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

●[434] The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

474 The finances of the store were under continual surveillance
443 both by the local inspector and by the Assistant Registrar of
[657] Co-operatives in Port Moresby to whom regular reports were submitted
[454] by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 The Yega had since the early 1930s been within walking distance
167 of one of the best mission schools in the Northern District, with
[568] a European teacher permanently on the staff. In consequence young
[871] Yega men, who almost without exception left the villages to enter
[797] paid employment, were able to obtain skilled and semi-skilled jobs.
[434] In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 Expansion of membership in the G.V.N.S. Co-operative had almost
443 ceased in 1964: 561 members in 1958 increased to 578 in 1961. As
438 a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

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The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

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[1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

summarized in Tables 7 and 8. As most income came from paid labour, coffee sales (through the Orokaiva Coffee Growers Society) and compensation payments (from the Administration) the amounts could be checked. The major items of expenditure, however, are more difficult to check and had to be compiled on the basis of detailed discussions of payments made on specific ceremonial occasions, taxation, and equipment, as well as current savings, church donations and so on. The item "food and household expenditure" is only an assessment based on people's estimates of their expenditure per pay period. A total income of £324 and expenditure of £276 during the eight-month period were accounted for as follows:

Table 7

Cash Income

Income (to nearest £)

Source	£	Total	Household range	Household average
Paid work:				
Labouring	168			
Councillor	10			
Mission pension	4	182	0 - 41	23
Produce:				
Vegetables	5			
Pig meat	25			
Coffee	17	47	0 - 28	6
Traditional:				
Bride-price	15			
Gifts of money	8			
Feast donations	6	29	0 - 15	4
Miscellaneous:				
Gambling profits	2			
Compensation(1)	64	66	0 - 34	8
Total		324	3 - 72	41
Plus savings from previous year		83	0 - 29	10
		407	3 - 92	51

(1) This was compensation paid by the Administration for coffee trees removed to widen a road.

Table 8

Expenditure

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511 Expenditure (to nearest £)

Item	£	Total	Household range	Household average
Domestic:				
Food and household	141			
Clothing	26			
Utensils	14	181	3 - 35	23
Capital:				
Equipment	2			
Housing	-	2	0 - 2	-
Traditional:				
Bride-price	57			
Other gifts	12	69	0 - 20	8
Miscellaneous:				
Church donations	2			
Tax (to council)	22	24	0 - 9	3
Total		276	3 - 65	34
Plus savings in hand now		97	0 - 30	12
		373	3 - 95	47

It will be noted that income per household averaged £41 for the eight months period and may be projected as £62 per household per annum or £11 per capita per annum. Only 14% (£47) of the total income was derived from primary production and less than half of this from cash crops. Very little of the income listed comes from within the village. All money derived from work and the sale of produce comes from elsewhere, and from persons or institutions with whom the Inonda people have no relationship other than the contractual one through which they derive income. All the income listed as "traditional" came from persons with whom the Inonda people had kinship or other social relations. Of the £15 in bride-price £8 came from resi-

dents of the village and £7 from non-resident kin. Of the gifts of money £3 came from resident kin and the balance from kin living elsewhere. The feast donations (with the exception of a few shillings) were given by non-residents, some of whom were kin, but most of whom were acquaintances living within a radius of several miles.

Food and household costs constitute the major item of expenditure, but a considerable proportion of the imported food is purchased for funerals, feasts and the entertainment of visitors. Part of the food costs may therefore be considered as costs of meeting social obligations. Within the local community, money is distributed through domestic obligations to provide for visitors and kin, and also through ceremonial (usually related to life crises) when cash and other property are exchanged. Probably the greatest cause for its circulation within the community, however, is gambling. Men who are earning wages usually gamble at least once a week and from observation of several games it seems that each player brings from 3/- to £1/-/- or more. Although the winner for the evening usually gives back a token sum to each loser, he retains most of the money himself. It is understood that gambling is widespread in the area.

Seven of the eight families had some cash in hand (we have shown this as "savings" though it was not necessarily specifically set aside as savings). The councillor looked after his own money, most of which he kept in a savings bank account. Only one other man had a savings account, and in it he held both his own and his son-in-law's money. The son-in-law felt reluctant to ask for money from the account except to meet social obligations. Two half-brothers (one married and the other single) gave most of their money to their father who seems to have made the decisions about expenditure for the extended family as a whole. The two other men in the village were responsible for looking after their own savings. As with non-monetary valuables, cash and bank books are usually cared for by women, but they have little or no say in the purposes for which the money is spent.

461 apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

241 Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

245 Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their 434 coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

[196] [198] (1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

[1495] (2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available to a limited extent at a rate of £150 per year in town areas and about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

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411 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the Department of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

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164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

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(1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

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212 C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

[592] Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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[452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of [626] the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

Table 4

Estimated annual income of entrepreneurs ($)*
(excluding interest on savings)

	A (1965)	B (1963)	C (Average 1963-65)	D (1965)	Household average Inonda and Sivepo** (1962-63)
Sales: coffee	320	286	-	-	3
cocoa	175	***	***	50	-
copra	-	-	244	-	-
rubber	-	-	-	-	2
vegetable	-	16	-	20)	4
hunted meat	-	64	-	-)	
Gross store profits[0]	91	50	199	42	-
Compensation[00]	-	35	-	-	6
Government loan[000]	-	-	-	140	-
Paid labour	-	-	-	-	23
Gifts, etc.	-	-	-	-	11
	586	451	443	252	49

* In many cases these figures are estimates only.
** Crocombe and Hogbin 1963b:53, and Rimoldi 1966:78.
*** Not yet bearing
0 Assessed at 10 per cent of turnover.
00 Paid by government for coffee trees cut to widen road.
000 Under a government resettlement scheme.

Table 5

Estimated value of assets in 1965 ($)*
(not including land, domestic houses or cash savings)

	A	B	C	D	Total	Average	Village householders**
Coffee, cocoa and coconut trees***	3,440	1,320	400	1,740	6,900	1,725	60 (est.)
Buildings[0]	500	80	100	-	680	170	-
Tools and equipment	252	221	79	287	839	210	15
Consumers durables	240	55	75	132	502	125	10 (est.)
Livestock[00]	-	-	-	26	26	6	24
Traditional valuables	-	87	-	-	87	22	14
	4,432	1,763	654	2,185	9,034	2,258	123

* This table is based on a series of assumptions, many of indeterminable accuracy. It should therefore be regarded as indicative of trends rather than as a precise record.

** For Inonda and Sivepo householders from Crocombe and Hogbin 1963b and Rimoldi 1966. The average per householder for each village have been added and divided by two.

*** Based on valuations for the entrepreneurs kindly supplied by the Chief Valuer, Lands Department (Mr D.D. Balfour-Ogilvy). Value for the village trees was estimated by the writer, on similar criteria.

0 Including only those buildings used in production (a cocoa fermentary, coffee drying trays and store, and a copra drier respectively). Domestic houses were in all cases built mainly of local materials.

00 Pigs assessed at $10, fowls at $2 each.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was
[654] provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

245
177 b) The production of crops specifically for sale.

c) The acceptance by the indigenes of
[654] supervision and advice from European and
[659] indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.
[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the
066 time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accompanied in almost every instance by their wives
592 and children. This situation represents a marked change from the pre-1940 years when
166 many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[464] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[197] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has
[464] enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

464 166 Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

434 431 178 554 All wage-earners send a portion of their earnings to their older kinsmen who remain at [P.17-A]

434 home in the villages. By doing this, they are
431 bringing about changes in the established
178 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was associated with the ceremonial distribution of goods: the recipients were placed under obligation to repay in similar kind at some future date, or else lose status. Among the Yega, the older recipients of gifts in cash or manufactured goods find it impossible to repay such gifts. As a result there has been an increase in the prestige of young or middle-aged, educated men. An instance of this trend was the
[666] almost unanimous election, in 1964, of such
[659] a person, recently returned from paid employment, as the Yega's first councillor on the Oro Bay Local Government Council.

[P.19-B]

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
[243] the Northern District has a long and somewhat unhappy history which will be referred to later; at the time of the eruption, just before the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
177 and the coagulum sold to a factory at Awala. There were six tappers in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory was no longer buying indigenously grown rubber, but a rubber
[474] cooperative was set up early in 1967, with the encouragement of the Department of Agriculture, in a village about one mile from Sivepa. The Department of Agriculture was also encouraging the people to plant superior Malayan rubber trees and two men had planted 250 and 72 trees respectively. Rimoldi reports that "members of the clans now represented in Sivepa and Binduta" owned four plots ranging from less than half an acre to about three acres in area.

Since that time, however, a new plot has been established, four and one-half acres in size, on which theoretically seven men were to establish rubber stands. The Malayan trees were planted here, as well as self-sown trees from the other plots which were dug up and replanted. These plantings occurred shortly after Rimoldi left. If the new cooperative venture succeeds, it is likely that the new plot--most of which still remains unplanted--will be exploited, but people were clearly waiting to see whether sales at attractive prices would eventuate.

245 Orokaiva coffee plantations are wholly a post-eruption
177 development, inaugurated by the Agriculture Department shortly after it was set up in Popondetta and greatly strengthened by the
311 setting up of a coffee cooperative, first under the Higaturu Local Government Council and later independently. First plantings in Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that in 1964, there were 1,100 coffee trees in Sivepa, owned by five growers. Crocombe and Hogbin reported 801 trees in Inonda in 1962, owned by three households. Since that time, Inonda has not added to its plantings, but Sivepa, along with the whole of the Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from five to 14--every able-bodied man in the vigor of life has his coffee garden from which he derives an annual income of between $50 and $100. This increase is the result of vigorous encouragement of plantings by the Agriculture Department, a change of ideology under the impact of the Local Government Councils and a great improvement in the marketing arrangements. In 1966, Sivepa coffee was collected and promptly paid for in Garombi village, about 15 minutes' walk from Sivepa. I did not take another coffee census

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

184 The difference in pattern between the two villages may well be
177 explainable by the influence of the improved schooling and the close contact with the mission station found in Sivepe, in common with many of the other resettlement villages. These improved facilities may to some extent be regarded as social consequences of the eruption, as they were developed in the resettlement villages in the wake of resettlement to replace the earlier facilities at Sangara.

434 Money income has risen rapidly since the war. About the time
184 of the eruption, six of the present inhabitants of Sivepe were away on jobs outside the village. Not only are far more Sivepe people absent today on wage work, but the village itself has a steady income. At the time of Rimoldi's study, his sample was said to have spent annually $410 while its income for 1962 totalled $328 or $28 per household. Today this has risen greatly; the 14 coffee gardens, with over 4,000 trees, produced some 6,000 pounds of coffee, worth in all about $1,000; gifts from absent wage-earners over the year totalled at least $500 and other income (paid work, sale of products, etc.) at least $200. This makes up a minimal total of $1,700 or an average of $60 per household. I would not be surprised if actual total income was as high as $2,000 but it is very hard to obtain reliable facts. There is no doubt, however, that the coffee gardens have made Sivepe substantially wealthier, while in Inonda only the government driver has substantially improved his position since 1962, when Inonda's average household income from paid work, produce and gifts was
[465] $33 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular salary of about $700 p.a. stands out in both villages.

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one
united big village. When the clans came over in 1959, they followed
the same pattern as the Sorovi immigrants followed in Sivepe: they
arranged their houses so as to maintain, in a subtle but unmistakable
way, their own identity. They formed in effect a second rectangle
which formed a harmonious continuation of the first rectangle but which
was separated by just half a chain. In 1966, the front and the back
half of Hohorita held separate feasts, each inviting a different
village. In 1967, the councillor made plans to clear the gap between
the two halves, remove the two old houses which emphasised the separation
and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves
in Hohorita, leaving their old village behind. I think it was they
[769] who filled the gap between the rows. The councillor had long been at
[775] pains to close down the small villages of Sombou and Kakita and Sombou
was finally persuaded after the death of an old migrant who had remained
a pagan. As he could not be buried in the Christian cemetery, and
people did not feel disposed to carry out the full involved ritual to
placate the ghost, they preferred to shift their village. (They thought
that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho
hospital, three miles from the Higaturu Council chambers. The school,
conducted by the mission on Hohorita station, offers an education to
the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had
appeared which were there for a special reason I have forgotten.
[231] Sombou and Kakita still had a normal complement of pigs. Coffee was
[245] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees
[166] were much better looked after, and there were far more of them. Every
man had his coffee garden and an income of $100 per annum from coffee
was normal. Young trees were also being planted at a much faster rate.
Compared to Sivepe, there were very few wives whose husbands were
permanently away working. The reason for this was that there are a
number of plantations quite close to Hohorita and those who needed
to work to pay off bridewealth, etc., could do so without going too
far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An
important resource of Hohorita, not shared by Sivepe, is the avail-
ability of good jobs within a reasonable distance; the fact that Hohorita
families do not break up in the same way as Sivepe ones indicates that
such separation is probably economically motivated. It is necessary
for a young man to earn his trophies, so to speak, which in the modern
world means money, but if he can do it without a prolonged absence
from home, he prefers staying home.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21)[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

891 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A (See Cat. 116, p. 228--Analyst)

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	**A. Personal Emolument**	
		Council President	$ 156
1000 females	1,000	Council Vice-President	108
		Councillors	1,560
Truck hire	13,000	Exec., Fin. Ctee	108
		Council Clerk	1,170
Aid Post Orderlies Subsidy	1,250	Messenger	390
		Landrover Driver	500
		Truck Drivers	1,450
Water Supply Subsidy	3,320	Agric. Fieldworker	234
		Market Manager	260
Aid Post Subsidy	240	Aid Post Orderlies	2,500
		Health Worker	256
Adult Education Subsidy	780	TOTAL	$ 8,692
Miscellaneous	2,900	**B. Revenue Expenditure**	
		Council Administration	$ 1,000
TOTAL	$38,490	Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

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gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

435 In the Orokaiva village, exchange value may enter in four ways:
436 through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant
●[434] item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

[776] We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

461 The term *pure ari* is appropriate to describe the white man's
435 labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution.
[694] Councillor Colin brings this out by his example of the policeman who puts village men into handcuffs and takes them off to court.
[759] In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[20] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

435 No great value was usually attached to conversion to western
436 commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

[169] The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

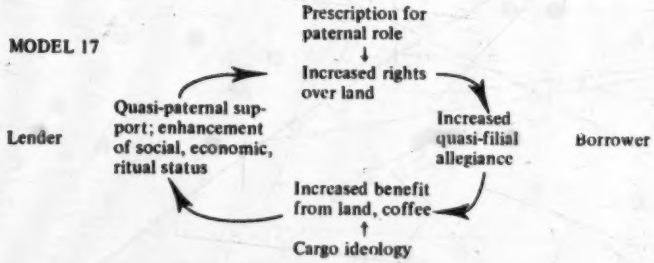
TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

435 245 At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) [258] [249] No copra was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. 245 425 After the war the Akute'undi, as landowners, claimed the trees as their own on the ground that the community project had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the [578] right of the Akute'undi to the exclusive use of the coconuts as all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

245 258 249 Enquiries in fifteen other Orokaiva areas where coconuts were planted under the regulations show that most were never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 average f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

000 Appendix B. No further communal plantations were ever established.

425 435 Payment for the land purchased by the Crown was made in tobacco, mirrors, belts, knives and axes. The precise cash value of these goods is not known, but the value of twist tobacco at that time was about 3/- per pound, (or 1½ pence per stick) and the various goods chosen as payment by different individuals indicate the following values:

1 mirror	=	3 sticks tobacco	=	4½ pence
1 belt	=	3 sticks tobacco	=	4½ pence
1 small knife	=	4 sticks tobacco	=	6 pence
1 large knife	=	16 sticks tobacco	=	24 pence
1 axe	=	29 sticks tobacco	=	43½ pence

The 16 blocks listed in Appendix A[1] contained 266 acres of land (with blocks ranging from 10 to 30 acres) and were bought for 23½ pounds of tobacco, 21 mirrors, 21 belts, 14 small knives, 6 large knives and 1 axe, or an approximate cash value of £5. 8.11 or just under 5 pence per acre of land.(1) The payment was divided equally between those persons listed on the purchase documents as the owners.

425 The officers who negotiated the purchase signed a declaration in each case to the effect that the land purchased was "unoccupied at the time of sale", though in several instances present-day informants have named the families or lineages which were gardening there at the time the plantations project began. As the land was to be set aside for the use of the local people the officers were perhaps less meticulous in this regard than they would otherwise have been, and in one instance signed a declaration to the effect that the land was unoccupied even though it was stated elsewhere on the document that the land had been under crop for some years and remained so.(2)

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(1) The first five blocks were purchased by an officer who paid one pound of tobacco per five acres (equivalent to 7d per acre) and the rest within a matter of weeks by another officer who paid in a wider range of goods worth the equivalent of just over 4d per acre There is no noticeable difference between the lands concerned. These prices are much the same as the Crown was paying for land elsewhere in the Territory at that time.

(2) Amboga plantation No. 26 (extension).

A. [See Category 423, pp. 37-40--Analyst]

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. [435] The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places [466] where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 19]

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

Table 1

Production of coffee in the Orokaiva area from plantations established under the Native Plantations Ordinance for ten years 1931 - 40[1]

Year	1931	1932	1933	1934	1935	[illegible]6	1937	1938	1939	1940	Total	Yearly average
Weight (lbs)	9,630	22,652	67,470	60,645	61,425	123,000	127,000	171,595	187,300	163,319	994,036	99,404
Payout[2]	170	426	828	558	642	1,280	1,425	1,527	1,863	2,102	10,821	1,082
Pence per lb[3]	4.2	4.5	2.9	2.2	2.5	2.5	2.7	2.1	2.4	3.1		2 6

(1) Derived from Territory of Papua reports 1932 - 41.

(2) Net payment to producers in £ Australian.

(3) Calculated to the nearest tenth of a penny.

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the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce.

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low,(1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success.

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P.A.R. 1949-50 : 17 show that 40,160 man-hours were worked on the 56 acres of coffee then in production and that £767.12.3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked.

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [435] [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

231 some toll on growth rates, size and length of life. Sows are quite prolific, however, and litters of 6 to 10 piglets which survive weaning are common. Boars are not numerous but it is claimed that the owner charges no fee for their services.

It is doubtful whether improved breeding and husbandry could [431] in themselves induce a significant increase in the consumption of meat by pig owners. Pigs are too scarce in this area to meet the existing demand and priority is given to the use of pigs for [435] distribution as pork at feasts or for gift exchanges. Very often neither a man nor his close kin have a suitable pig available when needed and in one such instance a price of £20 was set by the owner of a pig in another village.

Any person who aimed to establish a herd of significant numbers for commercial purposes would probably need to divorce himself as a participant from the network of exchanges which involve pigs.

245 e. Economic trees

[131] Although the village is 23 miles from Gona on the coast and over 1,000 ft above sea level, most economic trees are abundant. [133] The average household claimed 62 trees from which crops are gathered in season.[1] In order of numerical importance these were coconut, breadfruit, areca (betel) nut, sago, pandanus and tauga-nut (Cycas media) trees. Each household also owned one or two [137] citrus, puga-nut (Terminalia okaria), mango or barkcloth trees. Sago does not grow wild in this area as it does on more low-lying land, but numerous small creeks provide sites suitable for planting. The 93 sago trees owned by Jegase and Timumu people are sufficient to meet the intermittent demand for sago for distribution at large gatherings or during the occasional period when there are limited amounts of the more common crops ready to be harvested from the village's gardens. Whenever a tree is harvested the owner is expected to share the sago widely with the other villagers whether they are his agnates or not.

Most villagers had lived in several villages, some of which are now abandoned, and had planted coconuts there which they still claim. They usually had similar numbers scattered over parcels of land where they had gardened in the past. Sixty-two per cent of all trees had been planted on the patrimonial land of the [428] person claiming the trees. A man often plants trees while gardening on the land of affines or matrilateral kin and these trees are inherited by the planter's son.

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[1] These claims were not thoroughly investigated but their accuracy was checked on a number of sample parcels where householders claimed a specific number of trees of various kinds.

423 clansmen or other kin of members of the group. But this takes the
[C14] form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among
125 members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

436 a standard of value. However, to some extent money seems to have [555] taken over some of the functions of traditional valuables and in some situations one is exchanged for the other. In the past it [301] was recognized that skill and initiative in hunting and trading [237] were necessary to acquire di hambo but today, with safer communi- [321] cations and better hunting equipment, they are more easily obtained. People are willing to buy some of the more valuable items or some [439] cheaper items of European manufacture which can be adapted to serve as a novel decoration.

Although they constituted the greater part of the goods changing [428] hands on traditional ceremonial occasions, di hambo are evidently not now circulating rapidly. A little less than half of these valuables held by members of the sample had been inherited and nearly a quarter had been acquired by the owner by hunting or collecting.

A complete adjustment between the roles of money and of non-monetary valuables has not yet been made. They circulate in the same exchanges and both are considered essential; it may now be [583] accepted practice that each should be contributed by or distributed amongst different categories of kin on these occasions.[1] But the opinion was widely expressed that as people are increasingly demanding cash as a large part of bride price payments, the intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely interchangeable, we collected details of the prices paid for any items of di hambo which had been purchased by the sample,[2] and by using these in conjunction with the unitary scale of value on which informants could readily place all items, we assessed the possible cash equivalent of non-monetary valuables acquired by the 12 households from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

245 plots but agricultural officers intended to launch a campaign in
[654] the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 Not all receipts for sales of coffee from the sample plots had
[434] been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organization of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepe and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepe and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasus and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepe neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepe. The growth of the
[245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

249 177 [434] A new marketing scheme was devised after 1946. Any villagers who wished to tap their stands were provided with a tapping gouge and spout, anti-coagulate, treeseal and latex bucket by the same European planter. The tapper brought latex to the factory, was given a receipt and paid at the end of the week according to the weight of the dry rubber of the latex brought in. This system brought about a decline in tapping standards resulting in lower net cash returns for the villagers and seems to have been part of the background to their lack of enthusiasm for the lease noted by patrol staff in 1948.

433 249 In mid-1949 a report from the Popondetta District Office stated that all privately owned rubber areas were on the verge of closing down; production costs were high and market prices had fallen considerably.[1] The advent of the 'price-boom' later, caused by the Korean war, coincided with the eruption of Mt Lamington and the evacuation of the villages, and consequent cessation of production.

[435] By 1954 when attempts to organize systematic production were again resumed the market price had dropped to 5/6 d. per pound; the planter proposed to issue daily chits for latex bought and to pay cash at the end of every week. He offered the villagers, and the Administration agreed to, a price of a shilling per pound dry rubber content for all grades of rubber accepted. A system was organized whereby he provided for the transportation of latex by road from collecting points.[2] He arranged for the tapping of alternate 'sections' every 4 to 5 weeks; the time interval was dependent upon the density of the latex offered. Kongohambo was the collecting point for one 'section' consisting of stands between Kendata and Binduta; Koropata was the collecting point for another section. Only 70 villages were still supplying latex, mainly because of the accessibility. A report on native agriculture in January 1956 noted that villagers had sold 3,600 lb. (dry weight) of rubber for £180 in the previous 6 months. This was produced from only 10 stands 'near Awala' and it was felt that other existing stands would probably not be brought into production until roads were improved. By July 1958 the number of stands had not increased but 6,000 lb. (dry weight) of rubber was produced and sold for £300 in 5 months.

[435] In 1958 the villagers ceased to sell latex and started producing coagulum because the planter ceased to provide transport: the

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1 The report seems inaccurate where it says that the fall in price led the lessee to terminate production. In fact production continued.

2 Some villagers are under the impression that the price they were paid for their latex was lower when it was collected by the planter.

433 replacement of his vehicle being necessary but uneconomic. By
249 1958 independent production from his own plantation was increasing
[464] and, despite periodic renewal of enthusiasm for rubber,[1] the number of village tapping stands had dwindled,[2] due partly, in the planter's view, to the movement of increasing numbers of able men from their villages to take paid employment. Already, in 1955, it had been noted that in the areas near Awala and Sangara there was a serious shortage of manpower for work in the villages due to the absence of men employed as wage-earners.

In 1958 the people still interested in tapping adopted the planter's plan that, instead of selling latex at 1 shilling per pound dry weight of rubber as before, they should coagulate their latex themselves and carry it to the factory for sale at 6 pence per pound of coagulum. However if members of a distant village had a lot of coagulum for sale, they might still ask the planter to send a vehicle to collect it without charge.

[435] Bi-annual 'reports on native agriculture' put production from village stands for the year ending 30 June 1959 at 7,000 lb. (dry weight) and the price at 1 shilling per pound. In November of the
[404] same year it was estimated that rubber was produced from about 50 acres of village stands. By December another 2,750 lb. had been produced and the European planter suggested that declining production was due to the attraction of labour to the new Sangara
[245] European plantations and to heavy demands on villagers' time made by Administration departments and the mission. Coffee and cocoa planting was said to be increasing at the expense of interest in tapping rubber. In the first 6 months of 1960, however, 4,700 lb. (dry weight) was produced; by mid-1964 interest had increased further[3] and coagulum with an estimated dry rubber content of
[435] 1,500 lb. per year was being produced. In 1962 the price offered by the planter for coagulum had fallen from 6 pence to 5½ pence per pound.

249 It is not clear whether the individuals who offered themselves as tappers after 1946 had been conceded this or any other right by the rest of the villagers. Responsibility for distributing

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[1] In the first 6 months of 1955 production from 7 plots of rubber 'in the Sasembata area' rose by 60 per cent to 8,000 lb. dry weight (DS-29-855).

[2] The planter puts the number of villages involved at this time at about 30. The number participating at present is still about the same.

[3] Interest was aroused by the Ombisusu rubber project at this time (see p.102).

249 centre may be overtapped. No attempt is made to extend the area under rubber or to replace existing trees. Self-sown seedlings are allowed to struggle under heavy shading of parent trees and surrounding bush. Crowding leads to an accumulation of trash which presents a disease hazard.

A meeting of the local council recently adopted the proposal of a European planter that he should supply labour to clean the village rubber stands in the area in return for the scrap rubber collected in the process but the villages concerned refused to assent to the agreement.

In order to produce the coagulum the Sivepe tappers pour latex into hollowed-out sections of logs on the site of the stand and leave it to undergo natural coagulation but some other villages coagulate latex in the buckets they had received from the European planter. The blocks obtained in this way are washed in the river before being sold at the factory 3 miles away. Villagers claimed that coagulum produced from the Pusahambo stand in approximately 12 months before our survey was sold for £35, an average of £5.16.8 for each of the 6 tappers.[1] This figure was checked against records of receipts issued and indicates a yearly yield from the 2.4 acre stand at Pusahambo of 320-40 lb. per acre, despite the age of the stand and condition of the tapping panels.[2]

[435] 433

This compares with the Territory average of 400 lb. per acre which is the same as the estimated yield for the village rubber when the trees were worked for the first time and the tapping standard was good. Neighbouring European planters achieve yields of up to 800 lb. per acre with similar clonal lines and expect 2,000 lb. per acre from newly-introduced high-yielding trees. The first yields from a nearby Orokaiva smallholder's scheme in 1964 indicated a maximum yield of 500 lb. per acre with the old clonal lines.

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1 In 1964 Department of Agriculture staff reported that 1 month's tapping by a villager selling coagulum to the European might return £2 or £3, and that the tappers thought this amount too small.

2 An officer of the Department of Agriculture who inspected the area in 1962 suggested that most of the trees being tapped were self-sown.

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] The areas of the gardens in which coffee was tried were too
[438] small to give satisfying returns.[1] The income of £11 earned by
[245] the sample by weeding, processing and marketing their coffee in 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty
[245] of rewards is reported to be common in most villages in this area. However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.[2] Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

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1 The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

2 Figures from 1964 census, District Agricultural Office.

[179] [654] [383] However, different proposals had already gained wide currency; whereas the Administration had previously refrained where possible from participating in the local development of rubber, agricultural extension services have been expanded in response to widespread renewed interest among the villagers and Department of Agriculture staff have recently established a factory near Ombisusu village on the scale considered suited for economic viability. It has an optimum capacity for the production of sheet rubber on smallholdings of 20 to 30 acres under high-yielding trees.

[425] Part of the programme at Ombisusu has been the redistribution of land for development as individual cash-crop blocks similar to the Yega cocoa project.[1] Demonstration of this development has undoubtedly further stimulated local interest in rubber. It is calculated that the problem of capital for investment in such a factory, a figure of the order of $240, might be met in the absence of sufficient village entrepreneurs by the co-operative ownership of facilities by a small number of neighbouring growers.

On the other hand the European who has been buying rubber from the villages believes that 6 smallholders, for instance, each with 6 acres, could be expected each to receive a net annual income on present prices of about $360 (after repaying a loan) only if the producer were to tap daily for 310 days a year on a semi-commercial standard and produce good quality sheet rubber without direct supervision from a fully qualified officer.

He envisages instead a pilot project which would involve the planting of about 100 acres with high-yielding seed at Sasembata, for instance, where the project 'would be partially financed by some 34 rubber areas now in bearing' and, having little overhead cost, 'could afford European supervision by subsidy from the Administration'. The new land might be made available on a co-operative basis; this should be developed by labour receiving 'a minimum basic wage and the unpaid value be credited as units held in shares', whereas the villagers tapping existing stands could sell the latex at the project centre on a poundage basis.

The Department of Agriculture's budget-planning, incorporating the possibility of small loans to producers, has been carried out on the understanding that all smallholdings should be held and worked by an individual or nuclear family.

[435] Establishment costs might be reduced if the building standard were to be lowered judiciously, if standard agricultural equipment

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[1] The participants in these schemes were reported to be keenly interested in the possibility of receiving registered title under the Land Tenure (Conversion) Ordinance, 1964.

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[435] is already in use and if, as is hoped, high-yielding seeds become available at a much lower cost.[1] The returns may be higher than this estimate since the prospective yields per acre in the area are very good. Participants would be encouraged to plant on contiguous areas near the factory. The extent to which this could be done without requiring measures such as consolidation of holdings would depend on the minimum number who could operate the facilities economically and on the area within which men could be found who were prepared to invest capital and time and to wait for returns.

The possibilities of extending such pilot schemes and of rationalizing land claims for use in cash cropping in general would be enhanced if a redistribution of the limited and fragmented land resources among the more progressive individuals could be effected quickly and economically through a consolidation scheme promoted largely by villagers themselves. Members of 2 clan branches in the neighbourhood, who claimed a remote historical link, expressed to us their desire to abandon the system of gardening in isolated places and to develop their land on a co-operative basis but the plan had not been at all thoroughly thought out. However, adjustments along the lines of the scheme which was introduced by Hohorita (another village in the council area) but which did not receive the Administration's immediate backing, would provide a valuable basis for the extension of cash cropping.

If the capital can be found and if there is a successful outcome to the plan to capitalize on current enthusiasm to promote small holdings of rubber (which promises the best returns to village producers), this could be a significant step towards providing individual producers with new scope for initiative. Although technical supervision and extension services would be necessary, such a development plan would avoid the situation which Keesing (1951:12) believed would accompany the development of village agriculture in the area - 'as in socio-political affairs... the responsible organization and leadership would have to be provided from outside, with the dependence relationship which this implies'.

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[1] At present these seedlings are sold at 2 shillings each from the nursery at Ombisusu.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 461 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

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[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged and sold at one of the co-operative buying agencies at Killerton, [435] Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 (ii) Marketing. In addition to the long-distance trading of [443] subsistence produce by coastal people, the inland people are also beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

[433] [1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

438 are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since
435 their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and
[434] not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

464 (iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations,
[461] but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at
[465] Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

[497] Anglican mission stations frequently employ school-leavers as
[465] 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

[491]

[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

439 431 Discounting the effects of the researchers' presence, there is a considerable excess of acquisitions over disposals. This largely reflects the continued participation in the gift exchange system of villagers' kin who are in close contact with the monetary sector as wage earners or settlers (see Table 11:9).[1] The contributions of such people are particularly marked in the case of rice and clothing, which are, in terms of value, the most important items of storebought produce entering the gift exchange system. As well as rice, tinned fish, bread, trade tobacco and several lesser food items all enter into the exchange system occasionally. They are invariably given in small quantities, sometimes in the daily food transfers and sometimes as contributions to a feast or party.

(b) Monetary sector

435 432 Table 11:2 shows the total values of items acquired and disposed in exchanges involving an immediate return of cash. Purchases of subsistence produce are insignificant compared with the amounts acquired through gift exchange and they are usually made to fulfil an urgent need, such as feast contributions. Areca nuts, however, are bought occasionally. They are mostly obtained in the Popondetta market, whereas fish and game are purchased from hawkers. Some garden produce was sold to road construction workers early in the survey, but the main sales of subsistence produce were made in Popondetta market during periods II and III and comprised mostly fish and smoked meat from hunted animals. The Inonda people acquire almost four times as much cash from sales as they spend on purchases of subsistence produce.

439 In total, subsistence produce accounts for only a small proportion of monetary exchanges, which are concerned mainly with storebought goods. The total value of purchases of such goods is almost $200. As with gift exchange, clothing and rice are the most important items, with certain other foodstuffs - tinned fish, bread, sugar, biscuits and flour - also accounting for significant proportions. Apart from food and clothing, the main items purchased comprise household goods and tools and equipment for work.

[438] Apart from goods sold through the medium of the trade store,[1] copra was the only non-traditional commodity sold during the 26 weeks of the recording periods. Some coffee was, however, sold in the weeks intervening between the three periods.[2]

439 431 The excess of acquisitions over disposals of storebought foods is evidence of the comparatively slight degree to which they enter into the gift exchange system, with the exception of rice and tinned

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[1] For details of the operation of the trade store, see p.255. 8

[2] See p.257.

A,[See Category 892, p.247--Analyst] B,[See Category 444, p.235--Analyst]

meat and fish. Between 4 and 6 lbs of rice are given out each week on average, mostly as plates of cooked rice.

Table 11:2

Inonda: major items of monetary exchange over the whole survey period

	Acquisition			Disposal		
	lbs	$	%	lbs	$	%
A. Subsistence produce						
Xanthosoma	50.0	0.70	9	-	-	-
Banana	-	-	-	25.0	2.10	7
Coconut	2.0	0.10	1	15.0	0.75	2
Areca	9.8	2.06	27	1.0	0.20	1
Tobacco	-	-	-	0.5	0.20	1
Fish	8.5	2.10	27	39.0	6.80	23
Crocodile	-	-	-	12.0	4.50	15
Bird	-	-	-	12.0	2.10	7
Bandicoot	1.0	0.10	1	3.5	0.90	3
Wallaby	5.0	0.30	4	35.0	3.50	12
Pig	21.0	2.40	31	87.5	8.30	28
Eggs	-	-	-	0.3	0.30	1
Total	97.3	7.76	100	230.8	29.65	100

B. Storebought goods	$	%	$	%
Rice	21.40	11		
Tinned fish	16.86	8		
Tinned meat	5.98	3		
Bread	13.04	7		
Sugar	12.94	7		
Flour	12.60	6		
Soft drinks	4.72	2		
Sweet biscuits	11.44	6		
Hard biscuits	2.20	1		
Prepared refreshments	8.10	4		
Other foodstuffs and medicines	5.72	3		
Cigarettes, tobacco, alcoholic drinks	4.00	2		
Clothing	37.44	19		
Other	12.16	6		
Household goods	13.40	7		
Tools and equipment	16.70	8		
Copra			2.32	100
Total	198.70	100	2.32	100

433 434 As shown in Table 13:2, returns vary greatly, with some of the most favourable activities being pursued only by the entrepreneur in Inonda - a man who profits greatly by his personal contacts with a number of expatriates. By far the highest returns are obtained from marketing pig within the village, but dictates of custom restrict the frequent practice of this. While 'establishment' costs - in the sense of rearing pigs, growing produce, seeking contracts and employment, etc. - have been disregarded in estimating these returns they are, at the present stage of development, very low and often 'hidden' by subsistence sector requirements. Pigs are reared and garden produce grown as a part of the subsistence routine and their marketing is largely incidental; the decision to market wild game may only be taken after a successful hunting expedition; and the entrepreneur is well-known to the Administration as a reliable and resourceful individual and is often approached first about contracts.

The proliferation of cash-producing activities suggests one of three possibilities: that any single source of income, such as cash cropping is by itself inadequate; that cash cropping is not considered the best source of income; that demand exceeds the income from any one source. While opportunities vary greatly from one individual to another, the question of choice between individual activities seldom arises since many occur so irregularly that they cannot be considered reliable sources of income.

Two main considerations appear to determine preferred means for the acquisition of cash: firstly, reliability of income, and, secondly, size of individual cash payments. Each bears some relationship to the criterion of returns to labour but distinctive elements are also incorporated. An established demand for cash implies the need for a regular income and, among the range of activities, only cash cropping and the marketing of subsistence produce can provide this for the majority of villagers. If establishment costs are taken into account returns from the latter are higher, while its complete adjustment to the agricultural routine renders it a more suitable activity for the subsistence farmer. [435] However, the value per unit weight of garden produce marketed at Saiho is, at 2c per lb, insufficient to elicit serious interest in Sivepe, while its perishability, relative to cash crops, is an added deterrent. The unit value of smoked fish and meat sold by the Inonda people at Popondetta market is much higher (20c and 10c per lb respectively) but there are likely to be social pressures operating against the too-frequent commercial exploitation of these village resources: an opposition somewhat similar (in terms of the utilisation of a scarce resource for personal gain) to that voiced [431] in Sivepe to the sale of domestic pigmeat. While such an attitude was never overt during 1964 it serves as a partial explanation for the fact that individuals often distributed game through the gift exchange nexus when they could have sold it at the market.

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Appendix 4

Standard weights and values used in the exchange pattern data

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Weight (lb)

(a) Garden and forest produce:

Areca, 24 nuts	1
Banana, 1 hand	2
Banana, 1 bunch	25
Breadfruit, 1	2
'Cabbage', 1 bunch	0.5
Coconut, dehusked, 1	1
Corn, 1	0.5
Hingi, 24	1
Manioc, 1	5
Pandanus fruit, 1	5
Pawpaw, 1	2
'Pitpit', 4	1
Puga, 24 nuts	1
Pumpkin, 1	3
Pineapple, 1	2
Sago, 1 ball	0.2
Sago, 1 bundle	20
Sweet potato, 1	1
Sugar-cane, 1 stick	2
Taro, 1	2
Water-melon, 1	15
Xanthosoma, 1	1.5
Yam, 1	1.5
Food, various, 1 plate	1
Food, various, 1 dish	3
String bag, any produce, 1	35

(b) Game:

Bandicoot, 1	8
Cassowary, 1	120
Cus-cus, 1	15
Flying fox, 1	1.5
Pig, 1 (therefore, head - 30, chest - 30, leg - 20)	200
Pigeon, 1	2
Tree kangaroo, 1	30
Wallaby, 1	55

(c) Various:

Firewood, 1 bundle	20

Monetary value (cents)

435

(a) Food:

Dumplings, 1 plate	2
Fish, 1 lb tin	20
Flour, 1 lb	10
Lime, 1 lb	20
Meat, 1 lb tin	30
Meat, various, fresh/smoked, 1 lb	20
Meat, pig, fresh/smoked, 1 lb	10
Rice, 1 lb	10
Rice, 1 plate	2
Rice, 1 pot	20
Rice and fish, 1 plate	5
Salt, 2 oz	3
Tea, 1 pot	10
Tea/coffee, 1 cup	1

(b) Goods:

Coconut basket, 1	50
Sack, 1	50
String bag, 1	$2.00

245 242 423 178 The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

245 242 178 The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to [435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½d. to 4d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

Appendix

435 Assessed cash value of items in bride-wealth*

Pig (large)	$60.00
Ornaments and components of feather head-dresses (vernacular name)	
Daremo	$ 6.00 ea.
Gajina	1.40 "
Bati	1.00 "
Samba	1.00 "
Saima	0.50 "
Ungai jawo	0.50 "
Hono	0.50 "
Hau	0.40 "
Usege	0.20 "
Hombori	0.20 "
Ungai Jawo se), Pijama aku, Agena, Waiwa — less than	0.20 "
Bark-cloth	0.75 per sheet
Fibre mats	1.50 ea.
Household utensils	
Dishes and bowls	0.50 ea.
Clay pots	0.50 "
Enamel plates	0.20 "
Cups	0.10 "
Knives, forks, spoons	0.05 "
Food	
Taro (Colocasia) ½ lb ea.	0.03 per lb
Taro (Xanthosoma) 1 lb ea.	0.03 per lb
Yams 1 lb ea.	0.03 per lb
Bananas	0.20 per bunch
Dry coconut	0.05 ea.

* The cash values of most ornaments and components of head-dresses are taken from Crocombe and Hogbin (1963:97-9). Estimates of the cash values of other items were given by villagers.

Table 4

Inonda coffee production[1]

Year	Household No.	Weight (lbs. parchment coffee)	Price per lb.	Value
1960	1	242	1/2 and 1/3	£14.13. 4
	3	61[2]	" "	3.14. 4
	4	103[3]	" "	6. 3.11
	Total	406		24.11. 7
1961	1	246	1/-	12. 6. 0
	3	76	1/-	3.16. 0
	4	24	1/-	1. 4. 0
	Total	346		17. 6. 0
1962 (to Aug.)	1		1/-	8. 0. 0
	3		1/-	3. 0. 0
	4		1/-	4. 0. 0
	Total			£13. 0. 0

(1) Details of sales were obtained from receipts issued to producers by the Orokaiva Coffee Growers Society (for sales in 1962) and by the Department of Agriculture (for sales in 1960-1). Information for 1960 and 1961 is probably complete (except for sales from household 4 for 1961). Figures for 1962 include producers' estimates of the value of coffee they harvested during the first eight months of the year.

(2) Part of this coffee was sold by the brother of the head of household 3.

(3) Part of this coffee was sold by the step-father of the head of household 4.

CHAPTER 3 - OTHER PROPERTY

Housing

All materials for building the Inonda village were acquired from land and trees in which the people hold rights of one form or another.(1) The framework is usually made of wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

Very few agricultural implements are used. Each adult male has an axe for felling bush and every man and woman has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

The axes and knives were bought from local trade stores and though actual prices paid are not known, current re-

(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 grass knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £55.5.0.

291 pigs and fowls available for feasts, there is no opportunity for the numbers of livestock to multiply, and demand always outruns the supply. Nor can the demand be met from neighbouring [1495] villages for they are beset with the same problem. Some European planters breed pigs for the local market and have no difficulty in obtaining £10 to £15 for pigs of moderate size to be killed for feasts. If the problem of the current customary obligation to make one's livestock available for feasting could be overcome, pig and poultry breeding for local consumption and local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

241 The most important trees in the Inonda subsistence
245 economy are sago, coconut, betel nut, hauga nut, breadfruit, and pandanus. Sago is used for food as well as construction, while
[1124] the others are used for food only. Information on economic trees was gathered by interview only and, except in instances where we were able to check during the course of other work,
423 they were not counted on the ground. Economic trees are usually planted on land held by the lineage of the planter, but as rights to them are sometimes transferred by gift and inheritance between individuals of different lineages, sub-clans and clans, many persons hold rights to trees on land held by descent groups other than their own. Apart from a right of access, rights in trees do not entitle the holder to any rights in the surrounding land.

423 In addition to the rights of those born in Inonda, some
241 wives claim rights to use economic trees in their home villages.
245 They do not claim exclusive rights to specific trees,(1) but rather the right to harvest some produce from trees held by their fathers or brothers. This right is usually exercised only in the event of a shortage of food from the husband's land, or if the wife is on a visit home. During our stay we observed two persons exercising such rights - one to make sago about three

(1) With the exception of one woman who had been allocated specific coconut trees by her father.

436 Several villagers were asked separately to rank each kind of hambo and di in descending order of value. There was agreement as to the ordinal value of most items and the few discrepancies were eliminated by discussion with the elders.

[125] We took a list of hambo and di from each household head and details of the person from whom he had acquired each item, his relationship to that person, and the reason for the acquisition (whether as bride-price or by barter, cash purchase [128] or otherwise). Cash values for each type of di and hambo were assessed on the basis of average prices realized in known sales and purchases. Where the people could not recall an instance of the sale or purchase of a particular item, its value was estimated from its position on the scale of relative values given to us by the local people. Hambo were valued from £3 for daremo (though occasionally extra large ones sell for up to £20) down to 2/- for the more common articles. Most feathers are now so abundant that they have no cash value, but bird of paradise, ungaijawo and cassawary plumes are still sold. Further details of assessed values of hambo and di are given in Appendix B[A]

435 436 The cash value of hambo and di held in the village at the time of our survey was as follows:

Table 5

Cash value of hambo and di

	Cash value	Household range	Household average
Hambo	£52.17. 0	0 - £15. 6. 0	£6.12. 2
Di	£17.17. 0	0 - £ 4. 6. 0	£2. 4. 8
Total	£70.14. 0	0 - £19.12. 0	£8.16.10

Few men looked after their own valuables. Two brothers (each the head of a separate household) who kept theirs jointly, left them in the care of their married sister in another village. Another two brothers and their father left their valuables, which they owned jointly, with the wife of the elder brother. Those of another household were held by the wife of the household head. In one instance the household valuables were left in another village in the care of the parents of the

A [See Category 436, pp. 97-99--Analyst]

435 household head. Only one man looked after his own hambo and
436 di, and he was an elderly man who spent much of his time at home. The last household had no valuables. It consisted of a young couple and the man had given what few articles he possessed for his wife's bride-price. He has a job at present and is meeting his traditional commitments with cash.

426 The processes by which the valuables were acquired
425 are shown in the following table (in equivalent cash values):

Table 6

Acquisition of hambo and di

	Inheritance	Cash purchase	Barter	Bride-price	Made or caught	Other exchanges	Total
Hambo	9. 6.0	18.1.0	10.16.0	6.10.0	2.19.0	6.17 0	54. 9.0
Di	2.17.0	1.0.0	3. 0.0	3.14.0	10.11.0	2. 5.0	23 7.0
Total	12. 3.0	19.1.0	13.16.0	10. 4.0	13.10.0	9. 2 0	77.16.0

(These figures are slightly different from those listed in Table 5 above as these exclude details for one household which was in mourning, and include details of articles previously held by another household but since stolen.)

556 In traditional Orokaiva society the possession of
555 hambo and di demonstrated a man's prowess or that of his fore-
435 bears. Wild pigs' tusks form the main components of most
436 hambo and the spearing of wild pigs was a hazardous task requiring skill and courage. The next most important components were sea-shells, and they could only be obtained by contact with coastal folk (or from others who had contact with coastal folk). Such inter-tribal contacts appear to have been infrequent and risky. Feathers were obtained by snaring birds, a time-consuming process involving patient watching of intricately constructed traps and snares. The introduction of shotguns has facilitated the hunting of pigs and birds. There is now less skill and less time involved than previously. The trophies are consequently more abundant and of lower value. Likewise trading with the coastal people no longer requires courage or detailed

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

(1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

(2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

APPENDIX B

436
301
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Non-monetary valuables

Ornaments (hambo)

in descending order of value(1)

Ornaments	Where worn	Description	Assessed cash value
Daremo	Forehead	Made of red sea-shell	£3 each
Dambariso	Forehead	As above but having different design	£2
Hoave	Single held in teeth, double hangs on chest	Made of large white seashells	£1
Bati	Neck	Made of dogs' teeth	10/-
Gajina	Arm	Made of trochus shell	10/-
Bagi (ajawa)	Neck and hangs on chest	Made of trochus shell	10/-
Ganda	Held in teeth	Made of several young pigs' tusks	5/-

(1) Several villagers were asked separately to rank hambo and di in descending order of value. There was agreement on most items and minor discrepancies were eliminated by discussion with the elders.

Ornament	Where worn	Description	Assessed cash value
Parasi	Neck and hangs on chest	Made of brass from army dump or from tooth brush handle	5/-
Hono	Held in teeth and hangs on chest	Made of two large pigs' tusks	5/-
Poino (saima)	Head	Made of white sea-shells	5/-
Perere (keri)	Neck	White seashells	4/-
Hau (kuri)	Neck and hangs on chest	Large seashell beads	4/-
Sipe	Neck and sides	Made of silvery sea-shells	4/-
Simba	Head	Seashells	4/-
Ori	Neck	Seashells	4/-
Jaja	Head	Seashells	4/-
Matajo	Belt	Made of string and seashells	2/-
Sara	Head	Seashells	2/-
Erumo	Hangs from shoulder	Made of several sea-shells	2/-
Paho	Held in teeth	Large seashells	2/-
Hura	Forehead	Seashells	2/-
Sapi	Neck	Unknown	2/-
Sameme	Arm	Arm band made of trochus shell	2/-
	Feather head-dresses (di) in descending order of value		
Samba (rokou)	Head	Bird of Paradise feathers	10/-

Head-dress	Where worn	Description	Assessed cash value
Ungaijawo	Head	Rare mountain parrot	5/-
Homboru	"	Cassowary feathers (dark)	2/-
Usege	"	Cassowary feathers (yellowish green)	2/-
Tuna	"	?	-
Suni	"	Red parrot	-
Waiwa	"	Small red parrot	-
Agena	"	White cockatoo	-
Pijama	"	White feathers from hornbills' tails	-
Koro (waja)	"	Black feathers from hornbills' wings	-
Peremo	"	Hornbills' beaks	-
Guvero	"	?	-
Pupu	"	?	-
Borongo	"	?	-
Kombu	"	?	-
Amone	"	?	-
Karenga	"	Large blue parrot	-
Kahu	"	?	-
Gere	"	?	-
Kaumba	"	?	-
Hoiroi	"	?	-
Sara	"	Mixture of various feathers	-
Asigi	"	?	-
Suni	"	?	-

472 493 484 income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

435 Other property

472 471 422 184 As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

472 422 435 The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

472 342 (184) [422] The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers.

472 471 435 A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

472 231 184 By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

472 [434] [454] At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

Table 3

Replacement value of tools and equipment owned by entrepreneurs*

	A		B		C		D	
	No.	Value $	No.	Value $	No.	Value $	No.	Value $
Tools								
Axes	2	3.35	2	3.90	3	5.85	2	5.00
Bush knives	5	7.25	3	4.35	5	7.40	2	2.40
Grass knives	5	1.25	4	1.00	3	0.75	-	-
Picks	1	2.90	1	2.90	-	-	-	-
Shovels	1	3.20	1	2.40	1	2.40	-	-
Spades	-	-	3	6.15	1	2.05	2	2.40
Forks	-	-	1	2.92	1	1.70	-	-
Rakes	-	-	-	-	-	-	1	0.85
Hoes	-	-	1	1.25	-	-	-	-
Adze	1	2.35	1	2.35	-	-	1	1.50
Saws	2	7.45	-	-	1	2.40	1	4.50
Hammers	1	1.65	1	1.65	1	0.80	2	2.05
Pinch bars	1	1.50	-	-	-	-	-	-
Planes	-	-	-	-	-	-	2	8.75
Levels	-	-	-	-	-	-	3	7.20
Shears	-	-	-	-	-	-	1	0.85
Rulers	-	-	-	-	-	-	1	0.80
Total tools		30.90		28.87		23.35		36.30
Equipment								
Shotguns	1	56.00	1	56.00	1	56.00	1	43.00
Coffee hullers	1	28.00	2	50.00	-	-	-	-
Coffee pulpers	1	64.00	1	58.00	-	-	-	-
Coffee grinders	1	4.15	-	-	-	-	-	-
Pulping troughs	-	-	3	6.00	-	-	-	-
Rice hullers	1	31.00	-	-	-	-	-	-
Knapsack sprays	1	26.50	-	-	-	-	-	-
Counter scales	1	3.50	1	6.00	-	-	1	3.00
Produce scales	1	8.50	1	12.00	-	-	-	-
Water hoses	-	-	1	4.72	-	-	-	-
Buckets	-	-	-	-	-	-	2	3.70
Iron	-	-	-	-	-	-	1	9.00
Sewing machine	-	-	-	-	-	-	1	192.00
Total equipment		221.65		192.72		56.00		250.70
Total tools and equipment		252.55		221.59		79.35		287.00

* These were retail replacement values in Popondetta stores at the time the inventories were made.

245 Individual planting of cocoa was tried next, with twenty-one people planting between 20 and 1,300 trees each. The average [435] plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 An Ombi man named Charles was instrumental in persuading the 464 people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility 245 of establishing a tenure conversion scheme at Ombi-Tara. He planted 249 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 Conversion at Ombi-Tara began with a visit by a resourceful 249 Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

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[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966. 235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [295] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [594] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these 438 ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin say, from European planters. Fowls tend to be made available on [435] big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield 241 economic products, those plants which are native to the district 311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the
information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
511 the subsistence sphere. Money was essential for payment of taxes
and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
454 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

46 be acquired without too much hard labour or threat to status, and only
436 if its acquisition does not involve foregoing other more highly valued
437 benefits. Thus, the market has a great elasticity of supply: when
435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern
583 faction was, in fact more money-oriented than were the Sivepe people.

654 and local field trials are being carried out on the volcanic soils of the Northern District.

242 Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural 242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve [874] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The 435 violent fluctuations in price for this product do have a somewhat 245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

657 A good deal of development work has been left for the Higaturu 423 Council to deal with. I have already mentioned that government officers attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were 653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.)[A] Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

435 In the Orokaiva village, exchange value may enter in four ways:
436 through cash crops, outside gifts, labour and business. The two
latter categories are recent. Whereas wages were an insignificant
[434] item in most villages during my 1966–67 study, a recent income
survey (Newton 1978) in a typical village showed an overall income
of about K675 per household, made up of coffee returns 35%, wages
37%, migrant gifts 12%.

[776] We have no special studies of work concepts in this sector, but
some general indications. It may seem surprising that Jesus Christ
was nominated as the originating deity of monetary compensation
for work, but New Guineans widely regard him as originator of
European wealth and therefore also, not illogically, of the concept
of money and exchange value. The idea of converting labour into
money, in itself, greatly interests New Guineans. Thus Daniel de
Coppet shows that in the Are'are social system there is but one
traditional method of converting food and services into shell
money, viz by acting as an undertaker. For this reason the office
of undertaker was a highly valued one. Thus Councillor Colin might
well genuinely revere a deity or culture hero who instituted the full
convertibility of labour into money.

461 The term *pure ari* is appropriate to describe the white man's
435 labour if for no other reason than that a 'job' just like the *pure* is
a place where one spends the day. The new dispensation has, sure
enough, its own conflict (*isoro*) and mode of conflict resolution.
[694] Councillor Colin brings this out by his example of the policeman
[759] who puts village men into handcuffs and takes them off to court.
In such a case it was the task of the sorcerer to ensure that the
men would escape conviction and be set free again.[20] Virtue, in
such a system, is largely a matter of keeping out of trouble, but
also it is a matter of not squandering the money but reserving
some – ideally half – of it to serve the needs of kinsmen and
fellow villagers: contributions to ceremonial payments, feasts,
travel expenses etc. Briefly, wages tend to be converted into
political power.

435 No great value was usually attached to conversion to western
436 commodities, except where these became valued prestations. Thus,
when transistor radios became valued prestations, they began to
appear in large quantities in the villages and were mostly paid for
by absentee workers.

[161] The subsistence/feasting duality continues in this system in that
some money is needed for the former but a labourer would have
little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

435 436 167 the latter. Also, migrants normally leave behind a family member with the task of looking after the land (*simbari*) in a technical, magical and juridical sense. Often he also leaves behind a wife for whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

169 461 [571] If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume). Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

435 Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

[245] This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[21]

245 824 461 Growing coffee is not considered pleasurable like growing taro. When suggesting to an informant that coffee trees have a sweet smell, I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels [438] identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

461 [177] It is paradoxical that the work represented as introduced by Jesus

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only
439 when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

191 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of production.' Houses and clothing, etc., are called consumer's capital because they
511 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 phase would last about two days. Villages where I made very brief visits never
123 passed beyond that stage, thus remaining in my memory as exceptionally endearing in their generosity. Before I understood the system, I harboured romantic notions of going to live in these villages. In the second phase there would be frantic *hoija*. Everyone brought gifts, asked for tobacco, salt, kerosene, and rides in the car. People appeared to be most hurt when I would not drive into Popondetta every day, and take the whole village with me. Whenever I was offered any gifts or service during this period there would be an immediate demand for some desired benefit.

436 After some weeks, this rather aggressive barrage diminished. I found myself
123 with a number of regular exchange partners who brought me what it was presumed I needed and who asked me for more or less standard return benefits.
431 Two sorts of partnership developed: one type of partner expected a return gift immediately upon bringing me his own; the second type made gifts for which he asked nothing – they were represented as gestures of pure affection. Yet in the future an occasion would arise when I would be asked for, or would spontaneously offer, something in return. But this second type of partnership was far more similar to the kind of gift exchange the village people had among their fellow villagers or close associates. As more and more people shifted from the first to the second type of partnership, I could see something like a genuine exchange network building up. People trusted me enough to allow me to be in their debt for a while. I was thus approaching the stage when I would be regarded as a desirable exhange partner, or, to put it in Orokaiva terms, as a man of some moral virtue. It seemed to me that it was on my behaviour as an exchange partner that my status would ultimately depend.

431 Most of the significant events in which the village was involved were also concerned with exchange. While marriages, deaths, feasts and initiations were all occasions for ritual and magic, the gifts always loomed largest in everyone's interests. It would usually take at least a year, but often far longer, to accumulate the gifts needed for such occasions. During this period members of the family, local clan branch or village (whichever was the donating group) would be constantly on the lookout for money or gift objects that could be stored up. People would go looking for jobs. They would keep unused some
[628] clothing they had been given by a relative. Whenever a visit outside the village
[574] was contemplated, an essential part of the preparations was the getting together of the gifts that would have to be taken. Or when a visitor arrived, there was stealthy activity in the background to prepare the gifts without which he would not be allowed to leave. The size of the gifts would always be carefully planned, in accordance with the importance of the visit, the extent to which it was thought politic to do homage, and the availability of supplies. But the making of the gift would always be done in so casual a manner that one might easily believe it was totally spontaneous.

This manner must be affectionate and humble. But the wise man, in making a gift, puts his partner in his debt as much as possible without suffering undue expense, while at the same time enhancing his own status. At a later time, he will use his status as creditor to the best advantage. His concern is to foster a social relationship while at the same time seeking the acquisition of some scarce resource. Social and economic ends are pursued simultaneously. Thus Melanesian

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems. 431

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive. 431 436

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility. 431 436 829

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law. 581 586 627

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

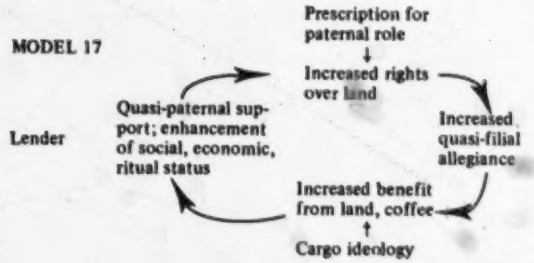
tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by usholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

434 [583] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging from nil to £39 with an average of just under £10. A small part [13] of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepe as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 484, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have
[555] taken over some of the functions of traditional valuables and in
some situations one is exchanged for the other. In the past it
[301] was recognized that skill and initiative in hunting and trading
[237] were necessary to acquire di hambo but today, with safer communi-
[321] cations and better hunting equipment, they are more easily obtained.
[439] People are willing to buy some of the more valuable items or some
cheaper items of European manufacture which can be adapted to
serve as a novel decoration.

Although they constituted the greater part of the goods changing
[428] hands on traditional ceremonial occasions, di hambo are evidently
not now circulating rapidly. A little less than half of these
valuables held by members of the sample had been inherited and
nearly a quarter had been acquired by the owner by hunting or
collecting.

A complete adjustment between the roles of money and of non-
monetary valuables has not yet been made. They circulate in the
same exchanges and both are considered essential; it may now be
[583] accepted practice that each should be contributed by or distributed
amongst different categories of kin on these occasions.[1] But the
opinion was widely expressed that as people are increasingly
demanding cash as a large part of bride price payments, the
intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely inter-
changeable, we collected details of the prices paid for any items
of di hambo which had been purchased by the sample.[2] We used by using
these in conjunction with the unitary scale of value on which
informants could readily place all items, we assessed the possible
cash equivalent of non-monetary valuables acquired by the 12 house-
holds from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

[1] See Crocombe and Hogbin 1963:52.

[2] These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

Chapter 3

The village economy

433 [128] This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of [251] life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production [438] was directed almost entirely to immediate and direct consumption, none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

[436] The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

244 (a) The subsistence sector

(i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it [361] does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many [184] settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the period of most intensive cash crop production. Between about March and July the Higaturu Local Government Council collects its annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

[651] [623] [797] [436]

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

[771] [493]

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

454 431 money received from them. As demonstrated in Table 10:15, such people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much the same manner - in effecting what are largely necessary exchanges [436] with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the former to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others, while, of the five households with the highest incomes, the heads [556] of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A. [See Category 437, p. 214--Analyst]

437 employees. The need for these people to evolve some sort of exchange relationships with neighbouring villagers is explained by their low salaries and restricted subsistence resources. Their presence also facilitates long distance hawking, in that people from the coast will come to stay with relatives employed inland, bringing with them their fish and lime.

436 The main use of cash is as the medium of exchange with the external sector and most transactions are, therefore, with organisations, with 80 per cent of disposals to them. These cover not only purchases of goods but tax payments and mission contributions, which together account for 15 per cent of all disposals to organisations. Only a part of this expenditure is met by the sale of cash crops and subsistence produce and by village-based wage labour. If gifts from the researchers are disregarded, remittances from wage earners outside the District rank with earnings produced directly by the sample's endeavours (37 and 40 per cent respectively of total acquisitions), while a further 8 per cent of total income is derived from wage earners within the District. In effect the external sector of the village economy is dependent to a very substantial extent on the earnings of those kinsmen in wage labour.

[433]

The geographical dimensions of exchange

439 As revealed in the preceding section, the entry of a number of kinsmen into the external sector of the economy and their scattering over a wide area considerably complicate the spatial dimensions of exchange by introducing something of a random element based upon the distribution of expatriate settlements and institutions rather than of indigenous population. Thus, three-quarters of all clothing originates from Port Moresby since that is where the highest income earners (among kin) are employed; the 34 per cent of cash income obtained from wage earners outside the District came from three separate points in the Central, Gulf and Western Highlands Districts where relatives are stationed; while the bulk of foodstuffs are purchased in a store at Awala - one hour's walk from the village - rather than another at Kongehambo - only 20 minutes away - because the former is better stocked.

437 438 With novel means of communication available, particularly the postal service, the circulation of non-perishable goods which are not a product of the village economy is largely independent of factors of distance. Further, such circulation operates primarily outside the network of subsistence villagers, is restricted principally to the monetary system and is of a more strictly 'economic' nature. By contrast the exchange of subsistence produce and labour services takes place predominately at the village level, and here a more significant geographical (and sociological) dimension to exchanges can be identified.

438 [433] daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Although some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] - surpluses (and their counterpart, shortages) are frequently the result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more bananas and sweet potato than taro.

[574] [431]

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively long-distance hawkers from both the coastal and mountain areas. At this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

[436] [178]

437 221 (ii) Labour services. Labour assistance in the subsistence sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.3
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A,[See Category 512, pp. 166-167--Analyst]

mountain area while taking refuge there during the war. Two others have been allocated specific trees in their mothers' villages. One obtains supplies from his wife's village, but most Inonda people must obtain their betel nut by barter or purchase from villages further inland.

Only two households own hauga nut trees in Inonda (a total of 8 trees). One man has two trees on his lineage land in Hohota village, one has four trees in his mother's village and there are some hauga trees in Aramba which Inonda people harvest on visits there.

Breadfruit are relatively plentiful, 52 trees being noted, not including 2 at Ajoro which are owned by one Inonda man, and 2 at Hohota by another. Some 37 pandanus trees were recorded in addition to one each at Hohota and Aramba. We found no instances of pandanus trees being owned by non-residents other than men who were contingent members of the Inonda sub-clans. On the other hand several breadfruit were owned by the children of women who originated from Inonda but had married elsewhere.

Non-monetary valuables

The Inonda people recognize two categories of non-monetary valuables; firstly hambo which are ornaments made of sea shells, pigs' tusks, dogs' teeth etc., and secondly di which are ceremonial head-dresses made of feathers. Hambo and di are exchanged at certain ceremonies and sometimes given in recognition of a service rendered or as a token of apology. They can also be acquired by barter, and there is still some trade in shell ornaments from the coast and in feathers for head-dresses from the mountains. In recent years, however, valuables have frequently been acquired by cash purchase.

It is difficult to value hambo and di in terms of cash and whatever formula one adopts has its inadequacies. It is nevertheless important that some attempt be made to equate them, for valuables and cash are in some circumstances acceptable substitutes for one another (especially in meeting traditional social obligations) and the acquisition of the one is to some extent in competition with the acquisition of the other.

436 Several villagers were asked separately to rank each kind of hambo and di in descending order of value. There was agreement as to the ordinal value of most items and the few discrepancies were eliminated by discussion with the elders.

[125] We took a list of hambo and di from each household head and details of the person from whom he had acquired each item, his relationship to that person, and the reason for the acquisition (whether as bride-price or by barter, cash purchase [128] or otherwise). Cash values for each type of di and hambo were assessed on the basis of average prices realized in known sales and purchases. Where the people could not recall an instance of the sale or purchase of a particular item, its value was estimated from its position on the scale of relative values given to us by the local people. Hambo were valued from £3 for daremo (though occasionally extra large ones sell for up to £20) down to 2/- for the more common articles. Most feathers are now so abundant that they have no cash value, but bird of paradise, ungaijawo and cassawary plumes are still sold. Further details of assessed values of hambo and di are given in Appendix E[A].

435 436 The cash value of hambo and di held in the village at the time of our survey was as follows:

Table 5

Cash value of hambo and di

	Cash value	Household range	Household average
Hambo	£52.17. 0	0 - £15. 6. 0	£6.12. 2
Di	£17.17. 0	0 - £ 4. 6. 0	£2. 4. 8
Total	£70.14. 0	0 - £19.12. 0	£8.16.10

Few men looked after their own valuables. Two brothers (each the head of a separate household) who kept theirs jointly, left them in the care of their married sister in another village. Another two brothers and their father left their valuables, which they owned jointly, with the wife of the elder brother. Those of another household were held by the wife of the household head. In one instance the household valuables were left in another village in the care of the parents of the

A [See Category 436, pp. 97-99--Analyst]

household head. Only one man looked after his own hambo and di, and he was an elderly man who spent much of his time at home. The last household had no valuables. It consisted of a young couple and the man had given what few articles he possessed for his wife's bride-price. He has a job at present and is meeting his traditional commitments with cash.

The processes by which the valuables were acquired are shown in the following table (in equivalent cash values):

Table 6

Acquisition of hambo and di

	Inheritance	Cash purchase	Barter	Bride-price	Made or caught	Other exchanges	Total
Hambo	9. 6.0	18.1.0	10.16.0	6.10.0	2.19.0	6.17 0	54. 9.0
Di	2.17.0	1.0.0	3. 0.0	3.14.0	10.11.0	2. 5.0	23 7.0
Total	12. 3.0	19.1.0	13.16.0	10. 4.0	13.10.0	9. 2 0	77.16.0

(These figures are slightly different from those listed in Table 5 above as these exclude details for one household which was in mourning, and include details of articles previously held by another household but since stolen.)

In traditional Orokaiva society the possession of hambo and di demonstrated a man's prowess or that of his forebears. Wild pigs' tusks form the main components of most hambo and the spearing of wild pigs was a hazardous task requiring skill and courage. The next most important components were sea-shells, and they could only be obtained by contact with coastal folk (or from others who had contact with coastal folk). Such inter-tribal contacts appear to have been infrequent and risky. Feathers were obtained by snaring birds, a time-consuming process involving patient watching of intricately constructed traps and snares. The introduction of shotguns has facilitated the hunting of pigs and birds. There is now less skill and less time involved than previously. The trophies are consequently more abundant and of lower value. Likewise trading with the coastal people no longer requires courage or detailed

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

APPENDIX B

436
301
435

Non-monetary valuables

Ornaments (hambo)

in descending order of value(1)

Ornaments	Where worn	Description	Assessed cash value
Daremo	Forehead	Made of red sea-shell	£3 each
Dambariso	Forehead	As above but having different design	£2
Hoave	Single held in teeth, double hangs on chest	Made of large white seashells	£1
Bati	Neck	Made of dogs' teeth	10/-
Gajina	Arm	Made of trochus shell	10/-
Bagi (ajawa)	Neck and hangs on chest	Made of trochus shell	10/-
Ganda	Held in teeth	Made of several young pigs' tusks	5/-

(1) Several villages were asked separately to rank hambo and di in descending order of value. There was agreement on most items and minor discrepancies were eliminated by discussion with the elders.

Ornament	Where worn	Description	Assessed cash value
Parasi	Neck and hangs on chest	Made of brass from army dump or from tooth brush handle	5/-
Hono	Held in teeth and hangs on chest	Made of two large pigs' tusks	5/-
Poino (saima)	Head	Made of white sea-shells	5/-
Perere (keri)	Neck	White seashells	4/-
Hau (kuri)	Neck and hangs on chest	Large seashell beads	4/-
Sipe	Neck and sides	Made of silvery sea-shells	4/-
Simba	Head	Seashells	4/-
Ori	Neck	Seashells	4/-
Jaja	Head	Seashells	4/-
Matajo	Belt	Made of string and seashells	2/-
Sara	Head	Seashells	2/-
Erumo	Hangs from shoulder	Made of several sea-shells	2/-
Paho	Held in teeth	Large seashells	2/-
Hura	Forehead	Seashells	2/-
Sapi	Neck	Unknown	2/-
Sameme	Arm	Arm band made of trochus shell	2/-

Feather head-dresses (di)
in descending order of value

Samba (rokou)	Head	Bird of Paradise feathers	10/-

Head-dress	Where worn	Description	Assessed cash value
Ungaijawo	Head	Rare mountain parrot	5/-
Homboru	"	Cassowary feathers (dark)	2/-
Usege	"	Cassowary feathers (yellowish green)	2/-
Tuna	"	?	-
Suni	"	Red parrot	-
Waiwa	"	Small red parrot	-
Agena	"	White cockatoo	-
Pijama	"	White feathers from hornbills' tails	-
Koro (waja)	"	Black feathers from hornbills' wings	-
Peremo	"	Hornbills' beaks	-
Guvero	"	?	-
Pupu	"	?	-
Borongo	"	?	-
Kombu	"	?	-
Amone	"	?	-
Karenga	"	Large blue parrot	-
Kahu	"	?	-
Gere	"	?	-
Kaumba	"	?	-
Hoiroi	"	?	-
Sara	"	Mixture of various feathers	-
Asigi	"	?	-
Suni	"	?	-

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

19: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
a sense of closeness to newly independent non-white states. But the
[263] information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
indifferent to selling their garden products on the Saiho and Popondetta
438 markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
the subsistence sphere. Money was essential for payment of taxes
511 and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
454 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

46 be acquired without too much hard labour or threat to status, and only
436 if its acquisition does not involve foregoing other more highly valued
437 benefits. Thus, the market has a great elasticity of supply: when
435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji sha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern
583 faction was, in fact more money-oriented than were the Sivepe people.

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepa people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepa people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepa to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepa
621 and Inonda are of different population size, Sivepa having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that reason alone. A second difference lies in the clan composition of the [614] two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timumu and modern Sivepa still contains roughly the same family alignment except that the members of the Timumu clan are now calling themselves

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be [881] made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. [583] Similarly, the inclusion of money in bridewealth is an innovation which, once made in a homogeneous community, is bound to become standard [436] practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $2[illegible] since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at Inonda, and only one, as far as I can find out, in Sivepe--and this 798 man settled at Agenahambe later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

871

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

In the Orokaiva village, exchange value may enter in four ways: through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

The term *pure ari* is appropriate to describe the white man's labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution. Councillor Colin brings this out by his example of the policeman who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[20] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

No great value was usually attached to conversion to western commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
167 magical and juridical sense. Often he also leaves behind a wife for whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

169 If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual
[571] universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

435 Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[21]

245 Growing coffee is not considered pleasurable like growing taro.
824 When suggesting to an informant that coffee trees have a sweet smell,
461 I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus
[177]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[22] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

13: Hogbin OJ23 Orokaiva OJ23

437

[For detailed information on items exchanged in a bridewealth transaction, see Category 583.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

points. First let us consider exchange partners as though they are strangers, with distinct destinies and personal interests, who decide to seek an alliance with one another for reasons which may range from psychological attraction to economic expediency. From this viewpoint the establishment and maintenance of a social relationship is always problematical and incomplete. The problem of how social exchange can ever get started has been a subject of speculation not only for social scientists but also for the Melanesians themselves.[1] In the Orokaiva folk-system the starting mechanism of an exchange system is presented in the form of a myth recounting a unique free gift made by a demi-god whereby the exchange cycle was set in motion. Historical change is represented by the emergence of a new demi-god setting up new exchange cycles. Once the relationship is started, it is composed of a perpetual cycle of exchanges between the two partners.

We may call this view of exchange phenomenological because it starts from *ego's* experience of a social relationship. *Ego* experiences *alter's* world as transcendant. As Husserl and Schutz have pointed out, social relations are necessarily based on an idealisation of the 'interchangeability of standpoints' (Schutz 1967: 126, 312–29). For that reason they are always to some extent precarious and incomplete. If our method of ethnography is to go beyond pure phenomenology, we also need to view exchange from a second viewpoint which I shall call analytical. From this viewpoint, it is impossible to conceive of the making, receiving and reciprocating of gifts by individuals in any culture unless that culture has conceptualised in some way the complementarity of donor and receiver. This notion of complementarity is inseparable from all our discourse about giving and receiving. For instance, in the present work I shall write a good deal about the exchange relationships between mother's brother and sister's son, husband and wife, son-in-law and father-in-law, friend and friend, creditor and debtor, victor and vanquished. Not only have the patterns of relationship linking these dyads been laid down by Orokaiva custom, but the complementary nature of these relationships is already implicit in the words I have used to describe them.

Although one might, with Nadel (1957), describe these dyads as logically related *roles*, this could give the impression that I am concerned merely with a set of rights and obligations that the role partners have *vis-à-vis* each other. The present work, however, deals with economic and psychological as well as normative aspects of dyadic relations. In a study of corporate groups, one must assume that exchanges between a dyad (*Ego* and *Alter*) are determined by corporate obligations. In a study of exchange systems, however, one must assume that the exchanges are in principle voluntary, and that normative rules specify no more than a code of behaviour by means of which it is commonly believed that *Alter* may be induced to do what *Ego* wants. (This desired object is often no more than the establishment or maintenance of a social relationship.) There are often no positive rules obliging A to fit in with E's wishes if E performs some specific act of liberality. For reasons shown in detail in later chapters, I prefer to think of acts of giving as magical rather than as obligating devices. I do not thereby question the importance of norms in explaining social regularities. Magic certainly contains norms: acts which are regularly performed to bring about certain ends because such acts are thought to be especially effective in eliciting a generous response.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 6 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

462
464

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tsuga* and *pugu* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

communities. When these do occur they are usually between neighbouring communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

Money. With a few reservations, one could describe the role of money in the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social groups. Among the Orokaiva as among the Siane, money mainly enters the luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and church donations), but sometimes utilitarian (payment of taxes). Purchases in trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea, batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

The use of money for capital goods merits some attention. Salisbury defines capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in progress. Tools and implements are classed as 'durable instruments of production.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian eléments, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast
437 and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 9 Dr. Waddell has provided a detailed statistical table of the geographical
438 distribution of subsistence produce (Waddell and Krinks 1968:218). This table
437 provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969: 123–33.

871 12 The general subject of Orokaiva economic development since 1951 is
872 very fully covered in numerous bulletins published by the New Guinea Research
797 Unit from 1963 to the present, and also in Schwimmer 1969. A general
659 indication of the investments in socio-economic development is given by a table
648 of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
829 Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
[123] Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total work output of the worker for the period he is on the job. The Orokaiva, however, regards all the work he does as part of a social relationship with the
437 person for whom he works. First of all, he expects that person to feed him while
177 he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de l'individualité du donateur.*' It rests on a notion that both worker and
177

employer give something in excess of their contractual obligation. These services and gifts over and above the formal contract are a form of social exchange. Both parties seem to be expressing affection and solicitude for the other. The worker does this by special care for his employer's interests; the employer does it by 'baksheesh'. The latter are never just extra handouts or cast-offs, though these may also be given. They are usually responses to appeals by the worker who describes an emergency that has arisen for which he requires some object of usually quite limited value: old batteries, a little kerosene, etc. It is the employer's solicitude in response to a claim which gives these objects their special value (though, of course, they have some monetary value as well). This social exchange can be expressed in the following diagram:

MODEL 6

This model represents the ideal norm of the relationship, as seen by the Orokaiva. He is well aware that the reality often falls far short of the ideal norm: not all employers show affection and solicitude. It is, however, a more serious flaw of the model that the white employer would totally reject it; his ideal norm of the employer-employee relationship is a very different one that does not involve social exchange (or baksheesh) at all. There is, in fact, a conflict of ideal norms between employer and employee. The actual arrangements on the plantations, which I have briefly sketched, are a sort of compromise or accommodation between the two conflicting concepts of employment: the employee accepts the fact that baksheesh is usually rather unwillingly and rudely handed over, as being a regrettable white man's custom; and the employer somehow makes room for a minimum of baksheesh on his balance sheet.

The fact that the conflict of values remains unresolved in this relationship does not vitally threaten plantation development, but similar conflicts are not so easily sidestepped in the Orokaiva's relationship with government and the mission. Neither community development nor religious conversion will be successful without some ideological commitment on the part of the receivers of the message. Obvious though this statement is, it is worth while to spell out its implications here, as it applies to the implementation of government policy.

Policy is formulated in Port Moresby and promulgated by the Administrator in the form of ordinances and regulations. Instructions on the enforcement of these are prepared by the Department of District Administration in Port Moresby and interpreted, in the light of local conditions, by the Department's officers in Popondetta, the administrative centre of the Northern District. But how can these ordinances and regulations be enforced in the jungle by a very limited number of patrol officers? Until 1956, a rather simple procedure was used. The patrol officers appointed a large number of suitable Orokaiva as village

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OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

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OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

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Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

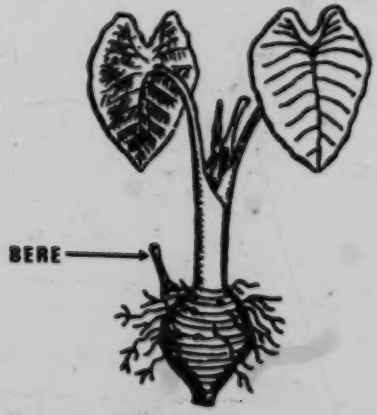

Fig. 7. *Colocasia esculenta* (taro).

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Mountain Orokaiva

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

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Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gaga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gaga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gaga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gugu*. It will be noticed that the position of the taro on the *gugu* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

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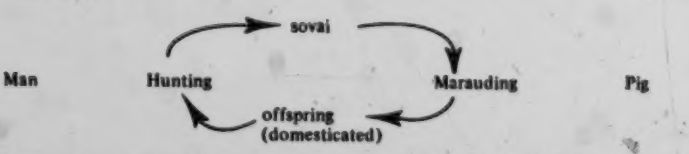
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
calls of its mother. It learns to forage in disused gardens but keeps away from
[789] growing taro. The piglet will not stray too far into the bush but comes home
[775] every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of prestations between the sexes, for it is a task women customarily perform for
[462] close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an
231 essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[191] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

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Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use. In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 to a man who had lent an ornament for a recent ceremony. I was told that meat
825 is sometimes kept for 'months' so it can be offered at a feast or used to discharge
571 an obligation. The housewife smokes the meat over the fire every day so that,
after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] While the economic motivation in the final disposal of the joints is plain
431 enough, it is less easy to understand the elaborate exchanges immediately
[437] following the killing. There are no taboos that could explain why these
exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give
[262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which
[778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 These beliefs do not, in themselves, explain why it is considered better for
262 meat to be given rather than consumed by the killer. They do, however, carry us
224 back to the myth – already considered in detail – by which Orokaiva explain
431 the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son
773 slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 Pig meat provided at the more important ceremonies of the Orokaiva comes far
825 more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the 628 husband's sister, etc. to the wife's relatives. Feasts given on the occasion of 728 peace-making, or on other occasions where whole villages are invited can likewise 574 be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *two* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [342] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 crop failure at Hohorita would be explained as resulting from sorcery inflicted
621 upon the people collectively by a sorcerer from one of the traditionally hostile
[789] villages near which the Sangara have been forced to live since the eruption. The
[754] sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 Yet it is clear, from the evidence presented here, that a feast does not serve to
628 set up warm and affective relationships between collectivities: the host and guest
437 communities, as such, do not actually eat together or converse with each other
572 closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 While the evidence presented above is consistent with model 25,[A] that model does
628 not account for all the facts under consideration. If we take a synchronic view of
778 the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

A [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

A (See Cat. 571, p. 148--Analyst)

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that such identification could be achieved only if there is a starting mechanism, in the form of a mythical charter, which defines the object as having the magical qualities that will enable it to act as mediator.

It must be admitted, however, that this mythical charter is logically prior to the social relation *only in the view of the indigenous culture* and that its logical status is no higher than *hau, mana, ivo* or any other mystical concept of the type Lévi-Strauss rejects as 'verbose phenomenology'. How can we meet this criticism? If we are to follow Lévi-Strauss' prescription, we have to turn to the largely unconscious categories of Orokaiva 'symbolic thought', i.e. the basic binary oppositions discovered in the culture by structural analysis. We have already, from the preceding chapters, some idea what the basic Orokaiva oppositions would be. We have noticed, especially, the importance of the male and female principle: most other binary oppositions we have found are related to this. The bush is classified as belonging to the male, the garden to the female; the wild pig to the male, taro to the female. Gifts of raw food are male, of cooked food female. Killing is the province of the male, nurture of the female.

Now such oppositions belong to 'symbolic thought', as Lévi-Strauss uses the term, precisely because of the kind of evidence I have brought forward in preceding chapters: it is the symbolic exchange relations holding between male and female, bush and garden, pig and taro, etc., that give them the status of binary oppositions in the structural analysis of Orokaiva culture. The difference between Lévi-Strauss' approach and my own does not lie so much in his and my use of binary oppositions as in my use of an exchange model in which the magical aspect of mediation is emphasised. For instance, my model 22 contains two binary oppositions: Man as Hunter/Pig as Marauder; and *Sovai*/Domesticated Pig. Both of these could, I think, be accommodated as part of a 'structural analysis' of Orokaiva culture. When I connect these two binary oppositions with arrows showing an exchange transaction distinguishing partners and objects of exchange and elements of mediation, I am introducing a 'subjectivist' element which is alien to structural analysis. I am showing a concern for the study of transactions, dialectical process, praxis, or perhaps Mauss' concept of *hau*. From a structuralist viewpoint, my arrows are entirely unnecessary as the exchange process is a prior condition of binary oppositions and has no place on the level of the model except as a logical operator (usually the symbol: /).

Now one problem with structural analysis is always at what point one should stop. Certainly analysis may reveal a great deal about the workings of symbolism in culture as it reduces social relations to exchange, exchange to symbolic thought and finally, in Lévi-Strauss' *Mythologiques* (1964, 1966, 1968) symbolic thought to computer signals. As Simonis (1968: 311) has wisely pointed out, at the final stage we move from a science of man to the logic of aesthetic perception. I think we should stop at the point most expedient for our own investigation. It is not useful in a study of Orokaiva exchange to carry on the analysis until exchange is reduced to the status of a logical operator. On the other hand, if in the manner of the phenomenologists we 'bracket' the logical priority of exchange, we find ourselves in difficulties when the folk system itself contains the type of dialectical reasoning upon which Lévi-Strauss founds his own theory. This is the problem with which we shall be concerned in the present chapter.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *ogu* and *eumbe*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*yu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

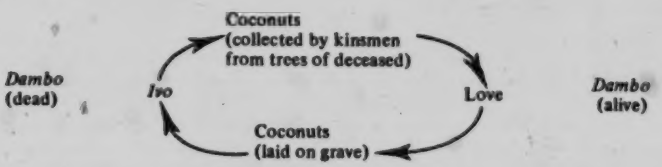
Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*pauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some [illegible]n of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER X
MARRIAGE

1. *Introduction*

In analysing a system of exchange, our first task is to find the rules governing the objects of mediation. I have not dealt with all objects used by Orokaiva for the mediation of social exchange, but I have given enough examples to show both a method and a pattern. The effect of the rules is to place constraints upon the exchange partners. Examples of such constraints may be found in each of the five preceding chapters. In making land transfers a man is constrained, in the main, by the love for his sister who wants his land for her children. In the daily ritual of taro gifts, householders are constrained by their quasi-commensal neighbours. Gifts of pig meat are constrained even more severely by a taboo on eating pork reared by oneself or a close relative. The constraint in coconut and betelnut gifts is mainly felt after a death, with affines as preferential recipients. The *otohu* sets up constraints through the moral pledges made at the time of its transfer to the owner.

Each of these constraints compels the individual to make commitments outside the narrow confines of the small agnatic group. Land transfers to the sister, if hereditary, place the sister's son in a position of dual allegiance to the agnatic and uterine group. The taro gift network involves a majority of non-agnates and establishes a chain of non-agnates who become vicariously quasi-commensal. The obligation to keep pigs for mediating critical social relationships ensures that means are available for setting in motion new cycles of positive reciprocity, either with strangers or with former enemies. My analysis of the coconut-betelnut myth shows a commitment on the philosophical plane: it shows that Orokaiva do not view exchange merely as a social and economic expediency, but as expressing, in symbolic thought, the interdependence of the sexes. Finally, the existence of two basic identity symbols (*hae* and *otohu*) implies a profound psychological commitment to the exchange system commensurate in Orokaiva society with the commitment to the corporate group.

I have spoken, in each case, of constraints because there has been a tendency, in the study of New Guinea societies, to overemphasize the degree of freedom. A man does not give his land, his taro, his pigs, or his *otohu* to just anyone. There are very strong pulls in the direction of the corporate group and these are balanced by very strong pulls in the direction of the exchange system. Nor is it correct to assume that the former are determined by structural rules whereas the latter are determined by economic interest. A study of the objects of mediation has already shown that there are rules which make commitment to the exchange system either obligatory or preferential. Yet all the evidence brought forward so

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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far has presented this exchange system as a set of individual, though interconnected, networks.

If our analysis cannot go beyond the identification and description of these networks, we shall clearly have failed to establish exchange as an explanatory principle for the ethnography of the Orokaiva. The success of our enterprise therefore depends on the discovery of some constraints, existing within the exchange system, which are placed upon individuals in virtue of their membership of some corporate group. If such rules exist at all, one may assume that they are most likely to be found in the marriage system.

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Here we enter somewhat controversial ground. In the introduction to a symposium on marriage in the New Guinea Highlands, Meggitt has recently (1969) asserted that, in that area at least, positive marriage rules do not exist but only what he calls 'contingent preferential arrangements'. If his arguments are accepted, there would be no positive marriage rules among the Orokaiva nor, as far as I can see, anywhere else in the world. His arguments hinge on his use of the terms 'preferential' and 'prescriptive', but even if we revert to the definitions given for these terms by Lévi-Strauss (1967: xvii–xxiii) a very careful and detailed investigation is required in order to determine whether or not the Orokaiva have any preferential rules of marriage and exogamy.

It may be best to start with Lévi-Strauss' own discussions regarding the problems of Melanesian marriage rules. When he wrote *Les structures élémentaires de la parenté* (1949), the ethnographic data from which a general model for the Melanesian area could have been securely constructed were lacking. Nonetheless Lévi-Strauss wrote a brief passage on this subject and ventured a bold hypothesis. The hypothesis seemed especially bold because at that time there was only one ethnography that could be quoted to support it, a description by F. E. Williams of the apparently aberrant kinship system of the Koriari (1932). I think nonetheless that his hypothesis is a most useful starting point for the analysis of Melanesian systems:

> *La Nouvelle-Guinée, et les régions avoisinantes, présentent, à un degré exceptionnel, un phénomène que Williams a decrit sous le nom d' "affiliation sexuelle", c'est-à-dire une différentiation de statut entre le frère et la sœur, l'un suivant la ligne paternelle et l'autre la ligne maternelle. Il est impossible d'interpréter ce phénomène en fonction de l'échange restreint: mais il devient très clair quand on l'envisage sous l'échange généralisé, puisqu'en mariage matrilatéral comme en mariage patrilatéral, le frère et la sœur suivent des destins différents. L'étude des phénomènes d'affiliation sexuelle . . . permet donc de définir, à travers tout le monde mélanésien, une sorte de faille de l'échange généralisé . . . Toute l'aire orientale, "océano-américaine", comme on peut le nommer, forme donc une sorte de théâtre, où se rencontrent échange restreint et échange généralisé, tantôt pour s'opposer, et tantôt pour se combiner* (1949: reprinted 1967: 534–5).

Since 1949, Lévi-Strauss has made several further contributions to the analysis of Melanesian societies. In the second edition of *Les structures élémentaires de la parenté* he suggested that *la ligne de partage entre les sociétés traditionellement appelées "primitives" et les sociétés dites "civilisées" ne coincide pas avec celle entre "structures élémentaires" et "structures com-*

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 46 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1962. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

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[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

241 pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

[262] In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the [224] domestic pig, and birds and small marsupials which are hunted. In Inonda and other areas more low-lying than Sivepe, rivers are larger [226] and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that yams and sago also are very recent introductions into their area. [262] The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sere',[3] as distinct from the ordinary taro gardens, called 'pure'. [824] The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

431 (ii) Exchange. The most common transactions are the daily ex-
437 changes of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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[1] Breadfruit is common only in the inland areas.

[824] [2] Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

[3] Such gardens are often only roughly cleared and not weeded, thus reducing labour.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

(i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the trees are self-sown. As well as lacking maintenance, in most cases

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

556 An important status indicator is the size of an individual's yam
[25] holding. Yams both enter into ceremonial exchanges and are stored
[24] for consumption during the dry season when garden foods are in short
[43] supply. Compared with taro, work on yams is 'hard' and not every-
[43] body grows them. In harvesting the owner seeks assistance from
others and the services so rendered are normally reciprocated in the
form of gifts of yams rather than the subsequent rendering of an
equivalent labour service. The more assistance an individual can
solicit the greater his potential capacity to increase his yam
433 holding and so increase his standing in the community while meeting
some of the needs of those without yams. In such a case there is
no limit to the imdividual level of production although there is in
demand of the group as a whole. However, there is no evidence to
suggest this demamd is met since annually people must resort to the
[24] production of less favoured foods such as sago to satisfy requirements. This suggests that the customarily defined span of activities
may be so great as to leave the people without the capacity to
satisfy their demand for yams, although the exchange system function-
ing through the network of ceremonial and leisure activities does
permit the more ewen distribution of scarce resources among the
group and provide its individual members with a higher degree of
security than they would otherwise have.

121 Disregarding the merits of Fisk's hypothesis as applied to
pristine subsistence communities, virtually all are now elements
in much broader political, economic and religious systems. This is
directly reflected in work patterns where novel demands are made on
the people's time and the level of out-migration by adult males
leaves a heavier work load for those remaining behind. As the link-
ages with the external sector become more effective so these features,
which may be largely unrelated to the increasing commercialisation
of the economy, become more significant. On these grounds Salisbury's
thesis (1962) that the change from a stone to steel technology has
resulted in a considerable saving of labour time in certain axe-
using activities cannot usefully be presented as additional evidence
for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity
patterns is to test the assumption that the particular nature of
organisation in subsistence agriculture is well suited to the graft-
ing on of commercial activities. In considering tillage, animal
husbandry and construction in traditional societies Udy (1960:85)
states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

The organisation of work by households

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

[TEXT CONTINUED ON PAGE 143]

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed oeise - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term handa, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoere are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.26--Analyn]

Chapter 10

Exchange patterns: Sivepa

The nature and volume of transactions

437 [125] As in the case of data relating to activity patterns, the transactions of the 35 adult members of the sample were recorded over a period of 25 weeks and 4 days, or 4,741 man-days. However, in view of the household functioning as the basic unit of production and consumption, attention was restricted to inter-household exchanges. These transactions were effected on only 63 per cent (2,987) of the man-days, the mean number being three per transacting day. Distinctive features are associated with the range, nature of partner and circumstances in which each of the five [431] identified categories is exchanged. Subsistence produce and labour services are associated primarily with the subsistence sector and cash crops, storebought goods and cash with the external, the former being characterised as gift exchange and the latter as monetary in that there is an immediate exchange of goods for cash (see Tables 10:1 and 10:2).[A] Although large sums of money do enter the community through the gift exchange system, it will be demonstrated that these originate primarily from wage earners employed in the external sector. In effect, therefore, the distinction which emerges between the two sectors in production and activity patterns is maintained in the systems of exchange. The concept of the market economy is of only restricted application although, as the volume of gift exchanges suggests, it does not follow that there is no demand for subsistence produce within the community.

(a) Non-monetary sector

431 437 (i) Subsistence produce. Subsistence foodstuffs dominate the non-monetary transactions with 25,909 lbs being exchanged. Both at the level of specific goods and of the sum of goods the basic feature of balance in exchange is demonstrated for, if transactions with the researchers are excluded, acquisitions account for 48 per cent of all transactions. Since this equivalence also occurs at the level of individual goods it suggests no significant geographical variations in the relative abundance or scarcity of goods within the range of transacting partners. While the volume of transactions of specific items does, crudely, reflect the relative importance

A. [See Categories 438, 439, pp. 186 & 189--Analyst]

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

[1] This figure was determined by using yield data gathered in Sivepa during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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[1] For a detailed account of the activities of these two men, see pp.117-21, 126-7.

[2] See pp.114-17.

A, [See Category 8A, pp. 117-119; Category 4A1, pp. 120-121; Category 8A3, pp. 126-127--Analyst]
B, [See Category 4A1, pp. 114-117--Analyst]

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

432 (b) Monetary sector

438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivepe and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Awala to receive payment for coffee previously delivered.

434 (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.[1]

[1] But see p.203.

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8: Waddell & Krinks E-4.5 (1964-1965) 1968 0723 Orokaiva 0723

Table 10:9

Sivopo: transactions of selected categories of goods and services by households
(volume per man-week)

A. Subsistence produce, cash crops and labour services

Household	No. of adults	No. of man-weeks recorded	Subsistence produce (lbs)						Cash crops ($)	Labour services (hrs)			
			Cultivated produce		Produce of hunting		Domestic pig		Cash crops	*Subsistence		Cash	
			A	D	A	D	A	D	D	A	D	A	D
1*	4	86.3	13.4	9.1	1.0	-	7.0	6.7	-	0.2	0.5	-	0.2
2*	4	76.4	10.8	19.4	1.2	0.2	1.2	5.3	0.20	0.6	0.3	1.0	-
3*	2	51.1	15.8	17.1	0.7	2.4	0.7	0.3	0.30	0.1	2.7	0.2	-
4	2	9.6	7.7	2.7	-	-	-	-	-	1.4	1.3	-	0.4
5*	3	58.9	9.8	7.4	0.4	0.2	0.6	-	0.07	0.1	2.1	-	0.1
6	1	25.6	14.9	19.3	0.1	-	0.4	0.1	-	13.5	0.6	-	-
7	1	16.4	9.9	5.6	-	-	-	-	-	5.2	5.6	-	0.1
8	1	25.3	23.2	40.2	-	0.1	0.4	-	-	1.4	3.6	-	1.4
9*	2	47.3	30.4	34.6	0.5	0.2	0.2	0.1	0.33	0.6	-	0.2	-
10	2	39.1	9.0	6.4	-	-	0.7	-	-	0.8	0.2	-	0.4
11	4	68.1	9.2	11.9	0.1	0.1	0.6	-	-	0.1	1.0	-	0.2
12	2	16.4	12.1	8.1	-	-	0.1	-	-	0.1	0.6	-	0.3
13*	2	46.3	17.6	35.9	0.5	0.7	0.2	4.4	0.13	1.8	0.5	0.8	0.2
14	3	60.1	8.6	20.7	0.1	1.5	1.1	0.2	-	1.2	2.6	-	0.7
15*	2	50.3	22.1	38.2	0.3	2.6	5.8	2.7	0.31	5.1	2.6	1.4	0.2
Total	35	677.2											
Mean			14.2	19.0	0.5	0.6	1.8	2.0	0.11	1.5	1.4	0.2	0.2
Cash cropping households	T 19	416.6											
	M		16.2	21.1	0.7	0.8	2.6	3.2	0.17	1.0	1.2	0.3	0.1
Non-cash cropping households	T 16	260.6											
	M		11.1	15.6	0.1	0.4	0.6	0.1	-	2.3	1.8	-	0.4

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

434 For example, during period II the sample's income ranged from $1 in one week to almost $50 in another. Since the turnover of cash is rapid and little capital formation takes place, the pattern of expenditure closely parallels income, and exceeds it in the latter part of period III when the substantial demand for storebought foods for ceremonial activities is met primarily with savings accumulated earlier in the year. These major fluctuations in the acquisition of cash demonstrate the danger of villagers placing any great dependence on it at this stage of commercialisation of the economy.

The exchange patterns of households

437 512 Both the volume and variety of transactions vary considerably from one household to another, and can be related to specific differences in the resource base of each (see Table 10:9). Thus, there is a distinct movement of labour services within the cash sector from non-cash cropping to cash cropping households, of cash crops from the latter, of the produce of hunting from householders with direct access to shotguns (households 3 and 15), of cash to cash cropping households, and of storebought goods to those households with the highest incomes.

Cash croppers exhibit a much higher volume of transactions than non-cash croppers in all categories apart from subsistence labour services. As suggested by the figures for subsistence produce, this applies equally to transactions in the gift and in the monetary exchange system. As in activity patterns so with exchange: cash croppers evidence a high level of participation in the traditional village economy. That is, cash croppers are industrious in work and generous in distribution, two qualities which generate respect and status both traditionally and in contemporary Orokaiva society.

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The lower rate of disposal of subsistence labour services by cash croppers may be indicative of the greater premium they place on time and a preference for exchanging goods more abundantly available to them but, apart from in the processing of cash crops, there is little evidence that they exploit the system by drawing on unutilised labour from other households. However, it is worth noting that household 15, whose head is the most active male in the sample, does record a high incidence of such exchanges of labour, in particular of acquisitions.

Not only do particular households play an important part in regulating the flow of specific categories of goods, especially the scarce ones of cash, pigs and game, but there are broad variations between households in their general involvement in the exchange system. The bulk of domestic pig is handled by four households (1, 2, 13 and 14), with only very small amounts being distributed or redistributed to others. Some of the households headed by older people (6, 10 and 11) or which are only recently

established in the village (4 and 7) scarcely participate at all unless they make specific efforts to obligate others to them or to settle existing obligations, as with 6 having a sago palm felled and 7 assisting his affines in subsistence tasks on numerous occasions.

The network of inter-household exchanges of these scarce goods and of services, even at the level of co-residents and close kin, suggests the system to be primarily a negotiated and exploitative one with the ideal of communal interests and group security relegated to a subsidiary role. This dual aspect of exchange is exemplified in a statement of intentions made by the head of household 18 where, in distributing some sago, he proposed to make large gifts to three people 'because they are always quick to help me when I am in need of food' but smaller gifts would be made to others since 'it would be an insult not to share with other people when they see I have plenty of sago'. In fact the security with which older people are provided is of a low order if the volume of exchanges with others is considered.

Income and expenditure of cash over 46.5 weeks

The level of the Sivepe people's commitment to the external sector of the economy is demonstrated by their income and expenditure patterns. All households handled some money during the period from February 1964 to January 1965 and even household 4 which registered a gross income of only 50c during the period it was present, left the village with the specific object of seeking wage employment on a Sangara plantation (see Table 10:10). Cash croppers handle substantially more money than non-cash croppers but this fact is not simply a function of the agricultural activities of the former. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping.

As the single most important source of income, remittances rank with proceeds from the sale of cash crops and, for cash croppers, these two provide their main sources of cash. By contrast non-cash croppers derive over half of their income primarily from Sangara settlers and secondarily from other villagers[1] (see Table 10:11).

The value of connections with wage earners and Sangara settlers is enhanced by the gifts of goods frequently associated with the

[1] Some money is also obtained directly from the sale of cash crops. Two cases were recorded of quantities of coffee being given to non-cash croppers in acknowledgement of assistance rendered; while in a third a young member of a non-cash cropping household emulated his brother in exploiting the communal rubber planting.

A. [See Category 511, p. 205--Analyst]

178 there are those indigenes who have moved temporarily or permanently
166 away from the village economy - to take up blocks of land as ex-servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly
[434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home
[465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees
[434] and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

●437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather
[438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

Table 10:15

Siuai: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisition						Disposal					
	Total	1	2	3	4	5	Total	1	2	3	4	5
	(lbs)						(lbs)					
Subsistence produce	11,553	96	1	2	-	1	15,091	73	-	4	2	21
deviant items:												
Taro/cocoa	350	94	-	6	-	-	104	92	-	1	-	7
Sweet potato	1,134	95	4	-	-	1	2,332	55	-	-	-	45
	(hrs)						(hrs)					
Labour services	1,170	99	1	-	-	-	1,108	99	-	1	-	-
	($)						($)					
Cash crops	-	-	-	-	-	-	71.60	-	-	-	-	100
Storebought goods	314.16	19	1	8	26	46	25.43	99	-	-	-	1
deviant items:												
Rice	32.30	16	1	6	1	76	5.42	97	-	-	-	3
Tinned fish	29.22	29	1	6	-	64	5.10	98	-	-	-	2
Tinned meat	11.20	-	4	15	3	78	0.06	67	-	-	-	33
Clothing	56.30	-	-	6	74	19	3.14	100	-	-	-	-
Bedding	9.20	-	16	-	57	27	-	-	-	-	-	-
Cartridges	19.80	39	-	1	-	61	2.00	100	-	-	-	-
Socks	3.50	14	-	86	-	-	1.50	100	-	-	-	-
Watch/radio	30.00	-	-	33	67	-	-	-	-	-	-	-
Cash	273.72	13	-	7	34	46	239.20	20	-	-	-	80

1 = subsistence villagers; 2 = settlers; 3 = wage earners within District; 4 = wage earners outside District;
5 = organisations.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

437 absences from the village[1] and the services are normally reciprocated with goods originating in the external sector.

The exchange of cash crops (for cash) is wholly bilateral in form - between producer and buyer - with no other movement identifiable. This does not apply to storebought goods. While 46 per cent are obtained directly from trade stores and other organisations, significant quantities are also received from wage earners, as well [438] as from other subsistence villagers. The bulk of goods obtained from organisations are foodstuffs and stimulants (59 per cent) and [439] these may be consumed casually or redistributed, primarily in ceremonial exchanges. Wage earners outside the District are the second most important source of storebought goods; in this case the goods are largely non-perishable and of a comparatively high value 434 as, for example, a radio, clothing, bedding and linen. Three parcels of gifts received were valued at $44, $35 and $19 each. Not only are such items suited for postal delivery but these are the only people that can really afford to make such gifts. Wage earners within the District are unable to make large gifts, both because of their lower incomes and the frequency of inter-visiting. Instead small quantities of food or used clothing are commonly given by them, although on one occasion a villager received a second-hand watch and on another, a number of sacks. The latter are highly valued for the storage of coffee.

438 The 19 per cent of storebought goods obtained from villagers fall into two categories - food which, as stated above, is mostly 439 ceremonially exchanged,[2] and cartridges. Both the owners (or the operators) of shotguns received frequent requests to hunt on behalf of others, in return for the supply of cartridges. However, one of them also expected an additional payment of 10c per cartridge from some people for the service.[3]

437 With the exception of a few small gifts of prepared food made to the researchers, the acquired storebought goods are only given to other subsistence villagers. Essentially, therefore, the pattern of movement of these, as of subsistence produce, reflects the different resource bases of the various socio-economic categories where the diffusion of kin facilitates reciprocally based exchange or, in the absence of kin, monetary exchange. The opportunities for this latter type are enhanced by the introduction of non-kinsmen into the subsistence villagers' orbit, particularly as mission

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[1] See p.77.

[2] In one minor feast an individual received thirteen tins of fish and large pots of rice and tea, apart from the customary range of subsistence produce.

[3] See p.119.

437 employees. The need for these people to evolve some sort of exchange relationships with neighbouring villagers is explained by their low salaries and restricted subsistence resources. Their presence also facilitates long distance hawking, in that people from the coast will come to stay with relatives employed inland, bringing with them their fish and lime.

436 The main use of cash is as the medium of exchange with the external sector and most transactions are, therefore, with organisations, with 80 per cent of disposals to them. These cover not only purchases of goods but tax payments and mission contributions, which together account for 15 per cent of all disposals to organisations. Only a part of this expenditure is met by the sale of cash crops and subsistence produce and by village-based wage labour. If gifts from the researchers are disregarded, remittances from wage earners outside the District rank with earnings produced directly by the sample's endeavours (37 and 40 per cent respectively of total acquisitions), while a further 8 per cent of total income is derived 433 from wage earners within the District. In effect the external sector of the village economy is dependent to a very substantial extent on the earnings of those kinsmen in wage labour.

The geographical dimensions of exchange

439 As revealed in the preceding section, the entry of a number of kinsmen into the external sector of the economy and their scattering over a wide area considerably complicate the spatial dimensions of exchange by introducing something of a random element based upon the distribution of expatriate settlements and institutions rather than of indigenous population. Thus, three-quarters of all clothing originates from Port Moresby since that is where the highest income earners (among kin) are employed; the 34 per cent of cash income obtained from wage earners outside the District came from three separate points in the Central, Gulf and Western Highlands Districts where relatives are stationed; while the bulk of foodstuffs are purchased in a store at Awala - one hour's walk from the village - rather than another at Kongehambo - only 20 minutes away - because the former is better stocked.

437 438 With novel means of communication available, particularly the postal service, the circulation of non-perishable goods which are not a product of the village economy is largely independent of factors of distance. Further, such circulation operates primarily outside the network of subsistence villagers, is restricted principally to the monetary system and is of a more strictly 'economic' nature. By contrast the exchange of subsistence produce and labour services takes place predominately at the village level, and here a more significant geographical (and sociological) dimension to exchanges can be identified.

437 Table 10:16 outlines the geographical pattern of transactions of subsistence produce and labour services. In so far as produce is concerned, 96 per cent of all acquisitions and 89 per cent of disposals[1] are restricted to subsistence villages. Furthermore, almost all of these exchanges are effected within a radius of two miles of Sivepe, with the majority operating within the village itself. The small net outflow of produce away from the villages (of sales and gifts to relatives in paid employment) is more than compensated for by the dominant inflow of cash and storebought goods described above. Within this broad pattern specific variations are identifiable, from produce which is exchanged almost exclusively within Sivepe to that which figures largely in links with distant villages and points outside the village network. Within the former category are prepared dishes such as 'soup', foods eaten primarily as refreshments, such as sugar-cane, and those which dominate the diet during the dry season - sago and breadfruit. The latter category comprises the ecologically based transactions of areca, lime and fish. There is only a very limited demand for all three, however, and the volume and frequency of such exchanges is of little significance within the total pattern.

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Taro and pig figure largely in inter-village exchanges, their movement being explicable primarily in cultural terms. One is the main source of carbohydrates, the other of protein and both serve as essential measures of wealth in food resources, therefore dominating ceremonial exchanges. In addition, custom dictates that a person cannot kill and consume his own pig but must effect an exchange with another. Since it is unlikely that two households in the same village wish to kill pigs at the same time, the transactions are largely made between individuals in different villages.

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The movements of yams and Xanthosoma are somewhat anomalous: almost all acquisitions of the former originate within Sivepe but many of the disposals are directed to other villages, while with Xanthosoma the pattern is reversed, most acquisitions coming from other villages. Neither crop is particularly abundant and the extent to which each is planted is largely a matter of individual preference, but both are favoured because of their storage qualities. Their variable movement must therefore be viewed as an expression of individual rather than broad cultural or ecological considerations.

437 Disregarding, for the moment, absences involving assistance to settlers at Sangara, the exchange of labour services is restricted, effectively, to the inter-village level and, almost entirely, to Sivepe itself. In the case of subsistence activities it is not

[1] If transactions with researchers are disregarded this figure becomes 86 per cent.

[TEXT CONTINUED ON PAGE 219]

Table 10:15

Siroge: the enumerated distribution of subsistence produce and labour service transactions
(by place as a percentage of total distribution)

	Total (quantity)	Siroge	Other villages within a radius of <1 mile	1-3 miles	>3 miles	Soundside mission	Bethe market	Other supervisor centres	Total (%)
	lbs								
I Association									
Subsistence produce:	11,555	68	11	12	5	-	-	3	99
Selected items -									
Taro	3,200	68	19	14	9	-	-	4	99
Xanthosoma	350	88	23	10	2	2	-	4	131
Sweet potato	1,136	86	8	-	-	-	-	5	99
Yam	870	94	4	-	2	-	-	-	100
'Soup'	160	91	3	3	3	-	-	-	100
Sago	556	77	12	7	4	-	-	-	100
Breadfruit	960	98	1	-	1	-	-	-	100
Sugar cane	155	85	1	6	-	3	-	5	100
Areca, lime, etc.	134	57	10	2	17	-	10	4	100
Fish	5	-	-	-	80	-	20	-	100
Pig (domestic and wild)	1,311	44	16	30	1	-	-	-	99
	hrs								
Labour services:	1,170	90	3	1	5	-	-	1	100
Cash	140	100	-	-	-	-	-	-	100
Subsistence	1,030	88	3	2	6	-	-	1	100
	lbs								
II Bisnawai									
Subsistence produce:	13,091	66	9	6	8	5	4	3	101
Selected items -									
Taro	4,259	51	8	12	13	9	3	5	101
Xanthosoma	103	99	-	-	-	-	-	1	100
Sweet potato	2,332	72	2	1	5	1	17	-	100
Yam	1,459	74	3	1	13	-	1	3	99
'Soup'	226	86	4	-	7	-	-	3	100
Sago	746	81	5	2	5	2	1	4	100
Breadfruit	1,497	81	5	1	8	3	-	2	100
Sugar cane	161	86	6	1	4	4	-	1	100
Areca, lime, etc.	114	44	10	6	25	-	9	8	100
Pig (domestic and wild)	1,443	38	43	15	2	2	-	-	100
	hrs								
Labour services:	1,100								
Cash	133	96	-	4	-	-	-	-	100
Subsistence	953	75	12	7	3	1	-	-	100

437 uncommon to assist relatives from other villages in such major operations as clearing new garden sites but, with one exception, cash cropping services are confined to the intra-village level.

In conclusion, exchanges are primarily intra- and inter-village, and they operate over a highly restricted geographical range. Further, in the case of cash cropping and during the seasonal food shortages there is a tendency for this range to contract to the intra-village level.

The network of exchanges among kin

433 Apart from the absence of any generalised medium of exchange, it is the strength and ramifications of kinship networks, affirmed by reciprocal exchanges, which are believed to have the most deleterious effects on economic growth by inhibiting the accumulation of individual wealth. Thus, where an individual has access to a scarce resource, for example, money, obligations currently effective with kin permit the latter to register some claim to it, and result in its division and rapid distribution.

121 Murdoch (1949:92) defines a kinship system as 'a structured system of relationships, in which individuals are bound one to another by complex interlocking and ramifying ties'. The most important dimension of this system is 'distance' where, in Murdoch's case, an individual's relatives fall into four major categories - primary, secondary, tertiary and distant relatives. Primary relatives comprise members of the same nuclear family as a person - father, mother, sister, brother, spouse, son, daughter; each of these have primary relatives of their own, most of which are not primary relatives of Ego - for example, father's father, mother's brother, wife's sister - and are spoken of as secondary relatives. Each secondary relative, in turn, has primary relatives who are neither primary nor secondary relatives of Ego, and are therefore termed tertiary relatives - for example, father's brother's wife, father's sister's son, father's father's mother. Distant relatives are more remote than these.

The form and intensity of exchanges are held to be explicable largely in terms of such models of kinship. Sahlins (1965:149), in identifying a spectrum within the field of reciprocity (from 'generalised' through 'balanced' to 'negative reciprocity'), proposes that

> The span of social distance between those who exchange conditions the mode of exchange. Kinship distance...is especially relevant to the form of reciprocity. Reciprocity is inclined toward the generalized pole by close kinship, toward the negative extreme in proportion to kinship distance.

121

> The reasoning is nearly syllogistic...close kin tend to share, to enter into generalised exchanges, and distant and non-kin to deal in equivalents or in guile.

He does, nevertheless, recognise three aspects of kinship distance, namely, genealogical, segmentary and spatial (or residential) distance. Of the third, he writes: 'It is not only the kinship organises communities, but communities kinship, so that a spatial, co-residential term affects the measure of kinship distance and this the mode of exchange.' (1965:150)

Among the Mt Lamington Orokaiva exchange networks can best be understood in terms of associated kinship-residential groupings, on account of the physical separation of clans into several branches and the frequent juxtaposition of two or more such branches in a single village. Yet, even with this proviso, it is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred (if any important relations exist at all in the context of Murdoch's model) for, not only is the proportion of total production entering into the exchange system small in Sivepa, but the dimensions of the system and the number of persons with which an individual effects significant transactions are also small.

437

The following examination of the major exchange relationships of six selected individuals[1] (see Table 10:17) reveals that many are founded on a specific set of considerations, involving degrees of economic inter-dependence, rather than on general obligations to a wide range of kindred. The conclusions reached are, to a degree, determined by certain assumptions inherent in the mode of analysis. Firstly, the exchanges of individual members of a household are considered instead of those of the household as a whole although a man and his wife, for instance, clearly conduct exchanges on each other's behalf. Secondly, women are treated as members of their spouse's lineage group since this is the kinship context in which they are considered to be the most effective transacting agents. In spite of such limitations the fact does emerge that exchange networks are not readily explicable in terms of formal models of kinship or of exchange based on such models.

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Linton. Although only adopted into Timunu clan, Linton behaves as a full member of it and retains few links with his true agnates, many of whom reside less than one hour's walk from Sivepa. The total volume of transactions effected by him exceeds that of the other selected individuals in all but two aspects: the disposal of subsistence produce and the acquisition of labour services in subsistence activities. In spite of the fact that he

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1 The same six whose activity patterns are considered above. See pp.117-27.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

registers a net excess of acquisitions over disposals within each category of transactions this does not necessarily conflict with the norm of generosity applied to respected people because, in this case, the total level of transactions is high.

His major exchange relationships are with immediate (adopted) kin and also with members of other Sivepe clans, particularly affines. In the case of the former, all resided for at least part of the survey in his adopted father's house next door. Between the two households the degree of economic inter-dependence is substantial, involving exchanges of labour services as well as of subsistence produce. Linton's only important source of labour assistance for cash cropping is primary kin outside his own household, none having any such crops of their own. They also assist with such subsistence tasks as house construction and harvesting yams. On the other hand Linton exercises considerable responsibility for his adopted father, a Thinumo man and son of a Jegase woman, and for his mother's brother, a widower and senior member of one of the smaller Jegase lineages. Without sons of their own resident in the village, and with increasing age, the tendency for Linton to act on their behalf in community affairs can be viewed as a logical development. A number of the latter's exchanges are an expression of this. Thus, he shot a pig of his father's and delivered it for him to the husband of a classificatory father's sister. Linton received the return gift of subsistence produce and organised the subsequent distribution in Sivepe, using the produce primarily to settle outstanding obligations of his own rather than of his father's. In particular, the distribution formed part of a major exchange of goods with an affine, his wife's brother, whose house faces his across the village square. This exchange was designed to restore relations which had been damaged earlier by an argument between Linton and his wife. It involved not only subsistence produce but storebought goods and cash, with the sum of $16 formally received and returned. In this case, however, sustained exchanges, particularly of prepared foods, are a feature of the affinal link.

Linton received considerable assistance, particularly in house construction, from his sister's husband, an Agenahambo man who resided in Sivepe until separating from his wife mid-way through the survey. Without close kin of his own in the village other than a married sister, this man was concerned to ingratiate himself with his affines, of whom Linton was evidently the wealthiest. Since he had no food garden of his own in production at the time, he could only achieve this by offering his assistance in various activities.

437
602

Table 10:17

Given: the major exchange relationships of selected individuals with their kin
(where the quantity exchanged exceeds 5 per cent of the total exchanged in at least one category)

Individual	Partner		Transactions: Subsistence produce A	Subsistence produce D	Labour-subsistence sector A	Labour-subsistence sector D	Labour-cash sector A	Labour-cash sector D	Storebought goods A	Storebought goods D	Cash A	Cash D
I Linton			(lbs)		(hrs)		(hrs)		($)		($)	
Totals			1,010.4	840.5	234.0	79.0	67.8	10.3	11.51	3.92	23.85	17.00
	(a) Other households within the lineage within the village											
		Z	32.0	3.2	40.4	-	30.8	-	0.15	0.12	0.35	-
		F	-	33.0	2.7	-	16.6	-	-	-	-	-
		M	93.5	3.2	-	5.1	13.3	-	-	-	-	-
		D	23.0	8.5	35.1	-	-	-	0.05	-	-	-
	(b) Other households within the clan within the village											
	(c) Other households from other clans within the village											
		ZH	2.0	1.2	69.8	1.5	-	-	-	-	-	-
		MB	78.0	9.5	14.6	37.1	-	-	0.20	-	-	-
		WB	159.3	198.5	-	-	-	8.0	2.90	2.80	16.0	16.0
	Classificatory	MB	24.4	4.5	-	-	-	-	0.20	0.50	-	-
	"	MB	1.0	13.7	23.7	-	1.3	-	0.20	-	-	-
	"	FWB	-	73.1	7.8	6.7	-	2.3	0.10	0.50	-	-
	H of "	MBD	61.7	17.8	9.4	-	2.3	-	-	-	0.20	-
	(d) Other households outside the village											
		FFBS	3.0	55.2	3.2	18.8	-	-	3.03	-	4.30	-
	H of classificatory	FZ	435.0	-	4.0	-	-	-	-	-	-	-

II **Palinuus**											
Totals		723.3	441.7	26.4	-	11.4	-	4.05	0.65	1.90	2.10
(a) Other households within the lineage within the village											
W of classificatory	BS	1.0	-	-	-	2.0	-	0.10	-	-	-
Classificatory	BS	-	24.0	6.6	-	-	-	-	-	-	-
(b) Other households within the clan within the village											
Classificatory	B	46.0	35.2	-	-	-	-	-	0.60	-	-
"	B	-	10.0	-	-	2.0	-	-	-	-	-
(c) Other households from other clans within the village											
Classificatory	MBS	82.2	10.0	-	-	-	-	0.02	-	-	-
"	MBS	111.6	25.0	-	-	-	-	-	-	-	-
W of "	MBS	62.3	-	-	-	-	-	-	-	-	-
"	MBSD	2.0	3.0	-	-	1.3	-	-	-	-	-
"	MBD	43.6	1.0	-	-	-	-	-	-	-	-
"	MBS	-	55.0	5.6	-	-	-	-	-	-	-
"	Z	85.3	6.0	-	-	3.1	-	-	-	-	-
"	FZ	40.5	10.0	-	-	-	-	-	-	-	-
D of "	B	42.0	-	-	-	-	-	-	-	-	-
"	MBD	5.0	-	-	-	2.0	-	-	-	-	-
(d) Other households outside the village											
	FZSW	44.0	-	-	-	-	-	-	-	-	-
	WFZSS	-	36.0	-	-	-	-	3.70	-	1.00	-
Classificatory	FBW	31.0	31.5	6.6	-	-	-	-	-	-	-
"	FBD	-	30.6	6.6	-	-	-	-	-	-	-
III **Gorukeri**											
Totals		613.3	1,073.0	0.3	-	3.0	3.3	0.58	1.30	2.00	-
(a) Other households within spouse's lineage within the village											
	WF	-	113.0	-	-	-	-	-	0.05	-	-
	HM	115.1	181.5	-	-	-	-	0.10	0.45	-	-
	WFZ	118.2	31.0	-	-	-	-	-	-	-	-

437

Table 10:17 (continued)

Individual	Partner*	Transactions: Subsistence produce A (lbs)	Subsistence produce D (lbs)	Labour-subsistence sector A (hrs)	Labour-subsistence sector D (hrs)	Labour-cash sector A (hrs)	Labour-cash sector D (hrs)	Storebought goods A ($)	Storebought goods D ($)	Cash A ($)	Cash D ($)
	(b) Other households within spouse's clan within the village										
	Classificatory MFS	35.3	3.0	-	-	-	-	-	-	-	-
	W of H " D	42.1	4.7	-	-	-	-	-	-	-	-
	H " Z	49.6	5.1	-	-	-	-	-	-	-	-
	(c) Other households from other clans within the village										
	W of H classificatory MBS	16.4	39.0	-	-	-	-	-	-	-	-
	W of member of H village	85.0	31.0	-	-	-	-	-	-	-	-
	(d) Other households outside the village										
	H	1.0	107.0	-	-	-	-	-	-	-	-
	Z	3.0	53.0	-	-	-	-	0.30	-	-	-
	MFZ	-	72.0	-	-	-	-	-	-	-	-
IV Clan											
Totals		381.0	944.2	14.7	2.0	-	-	0.82	1.01	-	-
	(a) Other households within spouse's lineage within the village										
	S	8.1	131.2	-	-	-	-	-	0.10	-	-
	SW	139.0	108.5	-	-	-	-	0.02	0.07	-	-
	(b) Other households within spouse's clan within the village										
	D	12.0	52.6	1.3	-	-	-	0.60	-	-	-
	DSW	-	78.0	-	-	-	-	0.05	-	-	-
	(c) Other households from other clans within the village										
	ZDH	12.3	30.7	6.7	-	-	-	0.02	-	-	-
	ZDO	-	2.0	6.7	-	-	-	-	-	-	-

(d) Other households outside the village											
	D	123.0	72.0	-	-	-	-	-	-	-	-
	MBS	41.0	1.0	-	-	-	-	-	-	-	-
V Bedwey Gill											
Totals		131.4	4.3	-	42.0	-	6.0	0.12	0.07	0.20	-
(a) Other households within the lineage within the village											
	B	0.5	-	-	26.2	-	6.0	-	-	-	-
	BW	38.0	-	-	-	-	-	-	-	-	-
(b) Other households within the clan within the village											
W of classificatory FB		10.0	-	-	6.3	-	-	-	-	-	-
Classificatory FBD		18.0	0.4	-	-	-	-	0.05	-	-	-
(c) Other households from other clans within the village											
Classificatory FZ		1.0	-	-	6.0	-	-	-	-	-	-
"	MBS	35.3	-	-	15.5	-	-	-	-	-	-
(d) Other households outside the village		-	-	-	-	-	-	-	-	-	-
VI Kwehaya											
Totals		398.7	463.1	344.9	28.6	-	-	5.32	0.12	2.00	-
(a) Other households within the lineage within the village											
	S	16.0	-	-	-	-	-	-	-	2.00	-
(b) Other households within the clan within the village											
Classificatory S		25.5	22.1	8.9	-	-	-	-	-	-	-

437

Table 10:17 (continued)

Individual	Partner*	Transactions: Subsistence produce A	Subsistence produce D	Labour-subsistence sector A	Labour-subsistence sector D	Labour-cash sector A	Labour-cash sector D	Storebought goods A	Storebought goods D	Cash A	Cash D
		(lbs)		(hrs)		(hrs)		($)		($)	
(c) Other households from other clans within the village											
	Z	98.5	17.0	5.0	-	-	-	0.05	0.02	-	-
	ZH	-	25.0	32.6	-	-	-	-	-	-	-
	ZS	9.5	78.0	37.1	22.0	-	-	-	0.10	-	-
	ZSW	36.0	-	7.5	-	-	-	-	-	-	-
	ZSH	-	4.0	19.2	-	-	-	-	-	-	-
	ZDH	-	6.5	8.3	1.8	-	-	-	-	-	-
	D	129.0	2.0	16.8	-	-	-	0.02	-	-	-
	DH	3.0	43.0	44.3	4.8	-	-	-	-	-	-
Classificatory	BDS	-	49.0	37.5	-	-	-	-	-	-	-
	ZDH	-	9.0	33.2	-	-	-	-	-	-	-
Classificatory	DHB	1.0	28.0	34.6	-	-	-	0.02	-	-	-
(d) Other households outside the village											
	D	37.0	22.0	-	-	-	-	1.77	-	-	-
	D	10.0	58.0	3.9	-	-	-	0.20	-	-	-
	DH	-	-	-	-	-	-	3.20	-	-	-
	DD	-	32.0	16.8	-	-	-	-	-	-	-

* Where F = father and therefore ZH = sister's husband
M = mother etc.
H = husband
W = wife
B = brother
Z = sister
S = son
D = daughter

437

Outside the village Linton had frequent contact with his father's father's brother's son, a Sasembata man who was employed, for part of the survey, as a domestic servant in Popondetta. Linton visited him periodically, taking subsistence foods and received in return gifts of cash and various goods, such as sacks and lime, which were readily available to his partner. Shortly after the man returned to his home village Linton and his wife spent several days with him, helping to clear the site for a food garden. In such a case the interactions are determined more by similarity of age and interests than considerations of kinship.

Palminus. Palminus and his family moved to Sivepe about four years ago, having previously lived in Sinduta. Since this latter village is only ten minutes' walk away he is able to maintain contact, in the form of exchanges of subsistence produce, with several kinsmen there. Within Sivepe his network of exchanges follows a rather unorthodox pattern in that it is oriented primarily towards members of another clan, Seho. Among his own lineage relations are strained and interaction is largely restricted to the receipt of labour services from junior members. Equally, within the clan he only transacts frequently with one man, a member of his own age group and progressive like himself, with interests ranging from cash cropping to non-traditional forms of entertainment.

Palminus' mother was a Seho woman and his genealogical relationships with that clan are based on this connection. Among the Seho people he interacts largely with members of his own generation - cross-cousins - his house being situated between two of them. Yet the intensity of contact is not simply a function of the location of his house. In general Palminus maintains better rapport with this clan than does the head of his own lineage and he is actively exploiting this fact in seeking support for his aspiration to become the most influential member of Jagase clan in Sivepe.[1] The greatest volume of his exchanges with the Seho people was effected with the household of the most influential member of the local branch. This man is not a neighbour of Palminus yet each continually considers the other's needs; for example, the former was the principal recipient of sago distributed by Palminus during the dry season while, towards the end of the coffee flush, he invited Palminus to pick in his garden because he had been unable to harvest all the coffee himself.

1 Rimoldi: personal communication.

437 Palminus was able, like Linton, to establish an exchange relationship with a man employed in Popondetta, in this case a distant relative of his wife, working as a carpenter. On his occasional visits he took him food, receiving in return cash and storebought goods. Apart from this case, however, Palminus' transactions are almost entirely restricted to subsistence goods and services - food and labour in harvesting yams. Acquisitions amount to 62 per cent of all his subsistence produce transactions (compared with 84 per cent in Linton's case), the greater proportion reflecting events following the death of one of Palminus' sons early in the survey when gifts of food were received from a wide range of kin during the week that he and his wife remained in their house.

Gorukari. Like most women Gorukari transacts little apart from subsistence produce and, in this, the substantial excess of disposals over acquisitions reflects her responsibility for distributing plates of cooked food. Outside her own family her immediate responsibilities are to her husband's ageing parents and their remaining dependent children who live next door. While the two families frequently prepare their meals at the same hearth the periodic sickness of the parents also involves Gorukari in providing food for them. In addition she temporarily accommodated her husband's father's sister, a widow, and her children. This family appears to have had some difficulty in achieving subsistence[1] and Gorukari frequently provided them with food. These gifts were acknowledged following the widow's remarriage and departure from Sivepe.

Elsewhere within the village Gorukari exchanges produce primarily with women from her own age group, where the bond is one of common interest rather than of kinship. Outside the village she maintains contact with two of her natal kin - her mother, who lives about one hour's walk away, and her sister, married to a medical orderly at Saiho hospital. These periodic visits also enable Gorukari to take food to her husband's father's sister who is married into her mother's village.

Ciga. Ciga's exchanges follow a similar pattern to those of Gorukari. They involve, almost exclusively, subsistence produce, disposals of which account for 71 per cent of all transactions. Within the spouse's lineage frequent exchanges are effected with her son and his wife whose house is adjacent. Elsewhere major exchange relationships are maintained

1 See p.94.

437 with immediate kin and with individuals receiving acknowledged support from her. In the first category are two daughters residing with their spouses' families (one in Sivepe and the other in a neighbouring village) during the spouses' absence in wage employment. The second comprises her brother's son and his wife, who resided briefly in Sivepe but were without adequate food resources of their own, and her sister's daughter's daughter, previously cared for by Olga, plus the girl's present guardian. Finally, significant gifts of food were received from a cross-cousin residing in another village.

[431]

Rodney Gill. With no significant food supplies of his own Rodney Gill only receives subsistence produce and disposes of his one abundant resource, labour. His exchanges are predominately with immediate kin - his brother and brother's wife residing next door - and they are the sole recipients of assistance in cash cropping activities. However, help with subsistence tasks is given to, and gifts of food received from, a wider range of individuals, all belonging to households located at his end of the village. Rodney Gill has no important exchange relationships outside Sivepe.

[431]

437 Umbahapa. As an aged and partially lame widower Umbahapa is dependent on regular
431 gifts of food from his sister and a married daughter living next to him and he normally
737 disposes of little himself. This pattern was temporarily altered during the survey by the decision to fell one of his sago palms. This resulted in assistance being received from, and sago distributed to, a large number of villagers. In fact these transactions were only nominally Umbahapa's since he had delegated to his sister's son, Liston, the responsibility of organising the work and distributing the sago, while, prior to its distribution, the sago was held in his sister's husband's house. Participation in this venture was determined by individual need for food rather than kinship criteria.

Storebought goods, in particular an axe, provided the most important gifts from kin outside the village, such items being the ones he is least likely to obtain as a result of his own endeavours.

437 The cases discussed above outline the pattern of sustained interchanges among individual villagers. However, they do not indicate the whole range of an individual's close genealogical kin since the network of exchanges is directly influenced by considerations of distance and by the links established through marriage between the clan branches represented in the village. The first imposes severe restrictions on the movement of goods, particularly subsistence

[437] produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's [431] sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

[437] Other major exchange relationships operate with affines, matri-
[561] lateral and patrilateral kin and are typically restricted to members
[602] of the individual's age group, for example, cross-cousin, wife's brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, [178] who were of both sexes and stood in a defined relationship where each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

[437] In effect, regular exchanges operate between members of one's
[602] own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[601] [1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

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brothers and husbands their dependents are normally being supported in the village.[1] Consequently, of the three categories of kin into which exchanges are grouped in Table 10:18, exchanges with the first (linked households, etc.) may be interpreted as expressing their degree of inter-dependence, with the second (cross-cousins, etc.) the intention of supporting alliances with members of other corporate groups, while only the third (all other) might be considered as a 'drain on resources' (in the sense of the goods and services not being reinvested for individual or group benefit). Nevertheless, most exchanges characterised by immediate reciprocation and equivalence fall in the last category and so, even in that case, the assumption is of questionable validity.

[1] Of the $166.30 received in the form of remittances, about two-thirds came from primary kin while about three-quarters came from individuals with dependents being supported in the village.

Chapter 11

Exchange patterns: Inonda

437 [431]

The nature and volume of transactions

The Inonda people carry out exchanges of subsistence produce, labour services and items derived from trade stores not only with each other but also with people from other villages, with settlers and with kinsmen or friends who are wage earners. Reciprocation for a gift is not necessarily on the same occasion, or in the same quantity or of the same item. The exchanges effected by the 21 adult members of the village were recorded simultaneously with the data on activity patterns, a total of 2,782 man-days being covered.

(a) Non-monetary sector

438 [262]

(i) Subsistence produce. Table 11:1 shows the total amounts of each item given and received by the villagers in all non-monetary transactions. The dominant position of taro in the horticultural system and the diet is emphasised by its role in exchanges. The economic importance of the sparsely-populated grasslands and hill areas is also clear from the fact that wild pig is the next most important item after taro; other hunted produce and fish are also significant. Some allowance should be made for the fact that pig carcasses, weighing up to 200 lbs are often given whole rather than after the removal of the gut and bones.[1] In addition, portions of meat frequently pass through a 'chain' of exchanges and are thus counted several times. This process occurs more rarely for vegetable produce. These qualifications, however, are not sufficient to diminish the significance of pigmeat in the exchange pattern. Sweet potato is the second most important crop (see Table 4:9) and the third most important item in subsistence transactions. Banana, sugar-cane, yam and pumpkin are the main subsidiary crops and are also significant in the exchange pattern. The comparatively small

[224]

[1] This practice is determined partly by the belief that in certain circumstances, such as when using a new gun, spear or new hunting dog, a hunter should not keep the prey to himself.

[TEXT CONTINUED ON PAGE 236]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

438
437
439

Table 11:1

Iaundu: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total (lbs)	%	Amount* received from researchers (lbs)	Total (lbs)	%	Amount* given to researchers (lbs)
A. Subsistence produce						
Taro	5,494	39	15	6,307	46	371
Xanthosoma	353	3	-	141	1	2
Sweet potato	1,419	10	2	1,235	9	69
Yam	406	3	2	457	3	13
Pitpit	160	1	-	221	2	4
Banana	1,098	8	6	528	4	18
Pumpkin	521	4	-	410	3	18
'Soup'	261	2	-	266	2	9
Sago	263	2	4	135	1	1
Coconut	324	2	5	416	3	25
Sugar-cane	546	4	19	662	5	73
Other cultivated produce	833	6	4	631	5	31
Fish	165	1	-	172	1	9
Wallaby	313	2	-	261	2	2
Wild pig	1,461	11	-	1,836	13	2
Other produce of hunting, fishing and foraging	156	1	-	151	1	3
Other	160	1	-	48	-	-
Total	13,933	100	57	13,957	101	550
B. Services	Hours	%		Hours	%	
Labour, cash sector	52.8	8		53.1	12	
Labour, subsistence sector	578.4	92		386.8	88	
Total	631.2	100		439.9	100	
C. Store-bought goods	$	%	$	$	%	
Rice	35.34	20	0.86	12.94	31	
Tinned fish	13.12	8	0.40	6.16	15	
Tinned meat	11.02	6	1.58	1.30	3	
Bread	4.46	3	0.56	3.08	8	
Tea	1.84	1	0.26	1.14	3	
Sugar	4.90	3	0.30	1.62	4	
Flour	1.20	1	-	0.90	2	
Soft drinks	1.34	1	0.38	0.90	2	
Sweet biscuits	4.12	2	0.20	1.94	5	
Prepared refreshments	2.36	1	1.60	0.54	1	
Alcoholic drinks	8.38	5	2.44	-	-	
Trade tobacco	19.66	11	14.90	2.26	6	
Cigarettes	1.46	1	0.14	0.14	-	
Other foodstuffs	2.44	1	1.06	0.36	1	
Clothing	39.60	23	25.20**	6.70	16	
Other personal goods	9.42	5	8.18	0.24	1	
Household goods	8.62	5	5.94	0.04	-	
Tools and equipment	4.90	3	1.04	0.70	2	
Total	174.18	100	65.04	40.96	100	

* Included in total.
** Includes parcel of clothing valued at $21.54 from research worker in Australia.

438 proportion formed by pitpit is due to the fact that it was only in season during the first twelve weeks of the survey (see Table 11:4). Yams, Xanthosoma and sago are similarly seasonal and in certain weeks are more prominent than shown here. Of the other cultivated products, areca nuts are important although they amount to only 93 lbs acquired and 39 lbs disposed over the survey. One lb consists of approximately 24 areca nuts, so that about 86 nuts were acquired and 36 nuts disposed of by the village as a whole each week. In other words, there is a regular traffic in areca. Inonda people are dependent on outsiders for the nut because the palm does not grow well on their land.

It is noteworthy that the total acquisitions and disposals of subsistence items are very close to balancing - the excess of the former amounts to only 76 lbs out of a total of 14,000 lbs. However, the reservation should be made that the balance is achieved by equating all items on the basis of weight, and this does not exactly reflect Orokaiva methods of calculation. It is, nevertheless, probable that the outflow of the most favoured foods - taro (800 lbs) and pigmeat (375 lbs) - helps to balance the inflow of services and storebought goods and that this is an expression of the Orokaiva ideal of reciprocity in relationships.

437 [431] (ii) Labour services. The exchange of labour services is to some extent a matter of individual inclination. Where an obligation exists, it has not necessarily been incurred through an equivalent service, nor is reciprocation in this way essential - it may, instead, be through a gift of garden produce and obligations and reciprocations may be separated by a time-lag of a year. For this reason and others discussed below, the pattern of services over a period varies from individual to individual and acquisitions and disposals are not often in balance. In Table 11:1 the excess of acquisitions over disposals of labour services in the subsistence sector reflects large amounts of labour given by people from other villages, mostly young men staying for a few days or weeks with kin in Inonda. They contributed 42 per cent of subsistence services, in such tasks as house-building, sago-making and gardening. If it is assumed that people who are temporarily absent from Inonda follow the same work patterns as people temporarily resident, this apparent excess would be considerably reduced.

439 431 [123] (iii) Storebought goods. Table 11:1 also shows the values of goods derived from trade stores that are circulated through the gift exchange system. Thirty-seven per cent of the total value of acquisitions shown was in gifts from research workers. One-third of this was in the form of a parcel of clothing from a research worker in Australia and the rest was contributed during the survey. The most significant contributions were of trade tobacco, mosquito nets (shown as 'personal goods'), clothing and a suitcase given to the leading man for his journey to Port Moresby.

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

437 (c) Cash

Table 11:3 shows that the Inonda people disposed of slightly more cash than they received during the survey period, but when transactions with the researchers are excluded the figures are in almost exact balance. No attempt was made at the beginning of the survey to record cash-in-hand and savings, so no detailed balance sheet can be presented.

Table 11:3

Inonda: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total of cash	337.38	340.70
Including:		
Savings bank transfers	18.00	10.00
Transactions with researchers	6.60	9.94

432 Seasonal variations in the exchange patterns

In presenting the seasonal variations in exchange patterns (and in all subsequent analyses), transactions in the two systems of gift and monetary exchange have been amalgamated. The effect of this amalgamation is greater for non-traditional than for most subsistence products. Thus, the Inonda people purchased rice worth $21.40 during the survey. Of the $12.94 worth of rice which individuals disposed of in gifts, $8.94 went to other Inonda people (Table 11:24)[A] and this forms only 16 per cent of total acquisitions of rice. For non-traditional items as a group, gifts received by the villagers from each other amount to only 7 per cent of the total value of acquisitions.

438 (i) Subsistence produce and storebought goods. Tables 11:4 and 11:5 show the seasonal variations in the exchange patterns by presenting the mean weekly amounts of various items acquired and disposed for each of the recording periods. The composition of the pattern may vary considerably from week to week during any season (see Figs.11:1 and 11:2). Thus, pigmeat formed 43 per cent (263 lbs) of acquisitions of subsistence items in week 4, but only 3 per cent (16 lbs) in week 6. Taro formed 32 per cent (191 lbs) and 65 per cent (349 lbs) respectively in the same weeks. However, the differences between the seasons as a whole have greater significance than intra-seasonal variations.

A,[i.e., Table II:17; see Category 402, p. 285--Analyst]

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] -
[574] surpluses (and their counterpart, shortages) are frequently the result as much of chance as of policy. Thus, near the end of the
[431] dry season a settler held a feast at short notice to mark the end of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.
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Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A,[See Category 512, pp. 166-167--Analyst]

The major part is received from Inonda people but a significant proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above[1] between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

(iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

[1] Page 235.

8: Waddell & Krinks 8-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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The exchange patterns of households

(a) The circulation of goods and services

Tables 11:8 and 11:9 present the patterns of exchange of the main groups of items for each household. The different sizes of households and the different numbers of days for which information was collected have been taken into account in calculating transacting rates.

It is clear from these tables that there is little difference between most households in the rate of acquisitions and disposals of garden and forest produce and the differences are even less when acquisitions and disposals are added and viewed as total turnover. Household 18, which contains the widow Embogi, is outstanding. This reflects partly the lack of a permanent male resident, whose lower average rate of transaction would reduce the general household level (as in the other households). More significantly, it reflects the fact that Embogi spends more time in subsistence gardening than any other villager[1] and also receives much assistance in gardening. The product of gardens made by others on her behalf is in excess of her own household's needs and so is distributed. A further factor is that, as a widow with only permissive rights to live in the village, generosity in distribution helps to ensure continued acceptance of her position. This applies to household 24 as well, which also gives more than the average amount. Household 24 receives less than average amounts of garden foods but has the highest rate of acquisitions of products of hunting and fishing. The household head is father-in-law of the two most successful hunters in Inonda and often receives gifts of whole carcasses from them. The widower in household 19 does not cook meals and disposes of very little garden produce.[2] For the same reason, he receives only cooked meat in comparatively small quantities rather than whole carcasses. There are wider differences in the patterns of exchange of hunting and fishing products, reflecting in large part the amount of time devoted to hunting by the household heads. The more skilful hunters spend more time in this way than other people. It is noteworthy that household 20 disposes of most game and little garden produce, indicating a degree of specialisation that is recognised by the other villagers, several of whom give this man cartridges with which to hunt on their behalf.

The main influence on the patterns of labour services is sago-making: the three men who harvested trees in 1964 (households 16,

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[1] See pp.167-8.

[2] It was discovered too late for recording that his son's wife often harvests in the widower's garden.

Table 10:18

Sivopo: the network of exchanges among kin
(derived from the data presented in Table 10:17)

		Total		Major exchanges*								
				By category								
				Linked households, other primary kin and dependent households			MBS/D, FZS/D, WB, ZH (incl. classificatory)			All other		
		Quantity	% of all exchanges	Quantity	%	No. of partners	Quantity	%	No. of partners	Quantity	%	No. of partners
Subsistence produce (lbs)	A	2,779.0	85	1,123.4	40	22	480.0	17	8	1,175.6	42	25
	D	2,270.0	60	1,172.2	52	21	291.7	13	7	806.1	36	31
Labour subsistence (hrs)	A	559.5	90	343.3	43	12	76.4	14	2	239.8	43	17
	D	151.8	88	95.2	63	5	17.0	11	2	39.6	26	5
Labour cash (hrs)	A	74.9	91	60.7	81	3	2.0	3	1	12.2	16	6
	D	16.3	83	6.0	37	1	8.0	49	1	2.3	14	1
Storebought goods ($)	A	17.05	76	3.46	20	11	2.92	17	2	10.67	63	11
	D	5.31	75	0.91	17	7	2.80	53	1	1.60	30	3
Cash ($)	A	28.85	80	2.35	10	2	16.00	67	1	5.50	23	3
	D	16.99	84	-	-	-	16.99	100	1	-	-	-

* Defined as where the quantity exchanged exceeds 5 per cent of the total in at least one category.

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Table 11:8

Inonda: transactions of main categories of subsistence produce and services, by household
(quantity per man-week)

Household	Garden and forest produce (lbs) A	D	Hunting and fishing produce (lbs) A	D	Labour services (hours) A	D
16*	31.7	28.5	4.4	1.4	2.5	1.2
17*	29.1	27.4	3.9	6.6	1.8	0.6
18	50.3	59.9	4.3	1.4	1.6	1.8
19	21.0	7.8	0.3	4.8	0.3	2.3
20	29.5	22.1	3.7	20.1	0.3	1.6
21*	35.2	31.6	6.5	4.9	2.6	1.0
22	11.2	21.6	4.1	-	-	-
23*	32.5	26.5	6.0	9.7	2.6	1.3
24	17.9	36.6	11.7	1.9	0.6	0.2
Mean for 9 households	29.7	29.0	5.2	6.3	1.6	1.1
Mean for cash cropping households	32.0	28.5	5.1	5.3	2.4	1.0
Mean for non-cash cropping households	26.6	29.7	5.3	7.8	0.5	1.2

* Cash cropping households.

17 and 21) all received more assistance in total than the average, while households which assisted with sago-making, such as households 19 and 20, disposed of more in total. However, household 23 received assistance in house construction and subsistence gardening but not in sago-making. In addition to receiving help with sago-making, household 21 received assistance in establishing a coffee garden. Most of this assistance was given by his mother, the widow in household 18. The widower gave most assistance per week (as well as a considerable quantity of hunting produce), in return for the surplus of vegetable produce he received.

Acquisition and disposal rates for storebought goods and cash also differ little from one household to another. Household 22, although present only during period I, records a comparatively high rate of transactions for food and stimulants. While resident in the village the head spent several weeks working for a settler and two weeks away on a fishing expedition. It is probable that his gardens suffered accordingly, making considerable purchases of rice necessary. The man belongs to the traditionally subordinate clan branch, Jego'undi, and, being neither a cash cropper nor a particularly influential person, his circumstances may have provided an incentive

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Table 11:9

Inonda: transactions of cash and main categories of storebought goods, by household
(mean amount transacted per man-month in $)

Household	Cash		Food and stimulants		Household and working equipment	Personal goods
	A	D	A	D	A	A
16*	2.12	2.95	1.34	0.24	0.16	0.65
17*	1.19	1.26	1.54	0.27	0.14	0.97
18	0.07	0.39	1.35	0.30	0.23	0.44
19	0.23	0.38	0.90	0.02	0.22	0.18
20	3.12	3.76	2.94	0.30	0.37	0.70
21*	3.20	2.89	3.08	0.43	0.40	0.20
22	2.12	2.93	3.14	0.62	0.24	1.04
23*	11.45	12.33	4.22	0.70	1.71	3.99
24	3.97	1.44	2.20	0.15	0.15	0.01
Mean for 9 households	3.39	3.53	2.32	0.34	0.43	0.99
Mean for cash cropping households	4.23	4.64	2.41	0.39	0.56	1.38
Mean for non-cash cropping households	2.26	2.01	2.20	0.26	0.25	0.45

* Cash cropping households.

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to demonstrate wealth not only by buying rice but also by distributing it frequently. This household is second only to the entrepreneur's (household 23) in its level of transactions of storebought goods. In contrast, it acquired relatively little garden produce and a below-average amount of game and fish per week and it took no part in the exchange of services, reflecting the weakness of its links with the Andirihaha residents. Household 23 has the highest rate of acquisition of personal goods. Apart from purchases (see Table 11:11) this household received the clothing parcel from Australia. Household 17 also has quite a high rate of acquisition of personal goods. During the survey, the husband and wife had a quarrel in which most of their clothing was destroyed and had to be replaced - much of it by gifts from the wife's sister, who is married to a plantation labourer.

Over a given period cash croppers receive more of most classes of items than non-cash croppers, with the exception of fish and game. Non-cash croppers tend to dispose of more subsistence goods and services, but cash croppers dispose of larger amounts of monetary items, admittedly largely due to the high level attained by the entrepreneur in household 23. Apart from this household, there is nothing to distinguish individual households which rely on commercial crops for their income from households relying on other sources.

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In the same way, there appears to be little relationship between the levels of transactions in most categories and either the rank of household heads or the total area cultivated by households. Where possibly significant differences in the rates of acquisitions and disposals appear, they are mostly explainable in terms of the various factors mentioned above. However, as regards rank, it is striking that the leading man's household is first in its rate of acquisition of most items, though only second for taro and pigmeat. It leads in acquisitions of both cash and subsistence sector services and is second in its rate of disposals of taro, banana, pigmeat and subsistence services.

It appears, then, that high status confers both material responsibilities and benefits. The main advantage accruing to the entrepreneur seems to be that he needs to spend less time than others in gardening and the time thus saved is directed into cash-producing activities.[1] This consideration applies only to the leading man and transactions according to the other rankings do not fall into a noticeable order.

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(b) The expenditure of cash

Table 11:10 shows the pattern of purchases by each household during each recording period and over the whole survey. While there are considerable differences between households in the total value of purchases and a wide range in the proportion of cash income devoted to commodity purchases, there is less difference in the actual composition of the expenditure patterns (see Table 11:11).

For all but one household (which has a total expenditure below $3), food and stimulants account for over half of the purchases. Rice forms between 7 and 16 per cent of the total of all except the Jego'undi household, the proportion varying little over the survey. Flour on the other hand, was bought only during period II, when it formed almost one-quarter of all purchases and the proportions of tinned meat and fish in particular were reduced. The proportion formed by clothing and personal goods is also reduced at this time. All households, except the widow's, purchase flour, the amount bearing no relation to income.

None of the households containing the older people (18, 19 and 24) bought clothing, while only one (24) bought any other personal goods or tools and equipment. Apart from these, the other non-cash cropping households (20 and 22) also spend small proportions on these categories and on household goods compared with the proportions of expenditure allocated by the cash cropping households (16, 17, 21 and 23). Clothing accounts for one-quarter of the expenditure of three of the latter households.

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[1] See pp.161-2.

deposited in the savings account but was kept as cash-in-hand. None of the household's expenditure was in the form of gifts; most was in impersonal transactions and the rest in commercial exchanges with village people. 511

Household 16 has a slightly higher income than household 24, but three times the expenditure, so that its excess of income over expenditure at January 1965 was only $4.78. The main sources of income were sales of coffee, marketing and labouring. The wife's mother received 10 per cent of the household income in the form of gifts from close kin. 434

Household 20 also has a comparatively high level of income and expenditure and an excess of income of only $2.82. Just over one-half was from gambling and a further one-sixth from marketing; this household has no cash crops.

Household 21, which is establishing coffee but derived no income from cash crops, has a gross income of $48.60 and an excess over expenditure of $7.04, which was the second highest in the village. This was derived from a wider range of sources and was more evenly distributed among them than the income of most other households. Over one-fifth was received in gifts, mostly from the wife's relatives, many of whom are wage earners.

Household 17 owns 107 coffee trees but sales of coffee were less important as a source of its income than labouring, even though labouring on the main road occupied only one week early in the survey and labouring on the contract gang ten days during December. Expenditure by households 16, 17, 20 and 21 was mostly on tax payment and store purchases, but 17 per cent of the expenditure of household 20 and 5 per cent of household 21 comprised gambling losses. [511] [525]

The remaining three households had a low level of income and an excess of expenditure for the eleven months. Household 18 received its entire income as gifts from wage earners and fellow villagers, as did household 19, apart from a small sum from the researchers. Expenditure was exclusively in purchasing, but the widower (household 19) lost $1 while washing his clothes in a stream. Household 21 was present for only the first 13 weeks of the survey. Its income was derived from labouring for a settler on the Girua block and from sales of subsistence produce to villagers. Expenditure, which exceeded income by $4.04, was mostly in trade store purchases. The household head did not pay the council tax and was later jailed for three months. After leaving Inonda, he continued to work occasionally for settlers but no details of his income were collected.

The majority of cash transactions are with organisations: this applies to expenditure even more than to income. Many of the transactions with villagers represent payments for specific goods and services that are usually related to the cash sector, such as 437 434 511

assistance in picking coffee, rather than to the traditional network of exchange. The relative significance of the different sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCCS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the entrepreneur account for 19 per cent of total village income. Some $43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the $16.50 received by cash croppers from wage earners within the District, $14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Seva men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof-sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

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[1] See pp.235-44.

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Table 11:15

Inonda: the type and volume of labour services transacted during each recording period
(hours)

	Period I (12 weeks)	Period II (6 weeks)	Period III (8 weeks)	Total (26 weeks)
	Acquisition			
Clearing	4.0	12.5	19.8	36.3
Fencing	10.0	34.4	-	44.4
Planting	10.1	14.0	22.9	47.0
Weeding	3.0	4.2	2.2	9.4
Harvesting and collecting forest products	-	3.0	7.6	10.6
Sago-making	-	263.7	-	263.7
Hunting and butchering	35.4	2.0	7.3	44.7
Construction	17.3	72.1	3.4	92.8
Household	8.8	-	21.7	30.5
Sub-total: subsistence	88.6	405.9	84.9	579.4
Coffee cultivation	10.0	17.7	6.5	34.2
Cocoa cultivation	-	-	-	-
Marketing	0.2	6.0	1.2	7.4
Purchasing	-	-	4.2	4.2
Entrepreneurial, incl. storework	7.0	-	-	7.0
Sub-total: cash	17.2	23.7	11.9	52.8
Total	105.8	429.6	96.8	632.2
	Disposal			
Clearing	12.0	0.5	4.0	16.5
Fencing	10.0	22.4	-	32.4
Planting	8.0	4.5	18.1	30.6
Weeding	3.0	10.2	-	13.2
Harvesting and collecting forest products	-	3.0	2.5	5.5
Sago-making	-	170.3	-	170.3
Hunting and butchering	61.4	2.0	1.3	64.7
Construction	17.3	19.7	3.4	40.4
Household	4.6	-	8.6	13.2
Sub-total: subsistence	116.3	232.6	37.9	386.8
Coffee cultivation	10.0	6.5	15.2	31.7
Cocoa cultivation	11.0	-	-	11.0
Marketing	0.2	-	-	0.2
Purchasing	-	3.3	5.4	8.7
Entrepreneurial, incl. storework	1.5	-	-	1.5
Sub-total: cash	22.7	9.8	20.6	53.1
Total	139.0	242.4	58.5	439.9

437 476 again reflecting assistance given by young people from outside the village. In addition to the two Sewa men, whose help was requested by the entrepreneur, a young married couple came from Kendata village to assist household 17. These were the children of the sister of the household head's wife, who is also from Kendata.

Assistance in hunting and butchering of game shows marked seasonality, falling almost entirely into period 1. This reflects the concentration of feasting in the same period, when men will request the help of those noted for their skill in hunting to provide the necessary meat.

Assistance in household tasks such as collecting water and cooking is mostly given by visitors, particularly women, from outside the village (see Table 11:16). The widow, however, received considerable help from two villagers when she made about 20 tapa cloths. Household assistance accounts for only 5 per cent of the subsistence services.

437 Most cash sector services are given in establishing or tending commercial crops, particularly the pruning and weeding of coffee gardens, which accounts for 55 per cent of the time disposed and 39 per cent of the time acquired. One man received assistance from close kin (his mother and sister) in clearing and staking out a new coffee garden.[1] One-fifth of the labour given was in weeding cocoa on a settlement block across the Girua River, reflecting an obligation incurred by one householder who had married the settler's step-daughter. Assistance received by the trade store owner in operating his store and in marketing other produce accounts for most of the other services in the cash sector. Labour assistance in the cash sector accounts for only 12 per cent of all services given, but assistance in the main task, maintenance of coffee, [433] exceeds that given in many subsistence operations and equals the amount given in hunting services. Thus, although the cash sector remains in some ways (as in the circulation of cash itself) peripheral to the village economy, it is integrated to the extent that it provides a recognised channel for meeting obligations through labour services.[2] In some cases, the receipt of assistance requires a return gift of cash, such assistance being one of the few sources of cash income available for old people or for women. In other cases, as with the settler's son-in-law, assistance in the cash sector is a means of meeting a traditional obligation. In sum,

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[1] See p.246.

[584] [2] Crocombe and Hogbin (1963:81, footnote), referring to assistance given to the Girua block settler by his son-in-law, point out that traditionally a prospective groom would assist his father-in-law with house-building or garden clearance.

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Table 11:16

Inonda: labour service transactions with non-residents

a. By household

Household	Acquisition: Total labour services (hrs)	Acquisition: % of total from non-residents	Disposal: Total labour services (hrs)	Disposal: % of total to non-residents
16	178.5	58	87.9	50
17	101.5	43	31.6	90
18	44.9	4	49.8	10
19	7.3	55	58.5	-
20	14.5	14	84.9	4
21	129.0	7	47.7	6
22	-	-	0.8	-
23	132.1	69	69.1	4
24	23.4	-	9.6	10
Total	631.2	40	439.9	20

b. By activity

	Acquisition: Total hours	Acquisition: % from non-residents	Disposal: Total hours	Disposal: % to non-residents
Clearing	36.3	83	16.5	64
Planting	47.0	43	30.6	7
Weeding	9.4	23	13.2	38
Harvesting and collecting forest products	10.6	67	5.5	-
Sago-making	263.7	39	170.3	6
Hunting and butchering	44.7	13	64.7	45
Construction	92.8	54	40.4	7
Household	29.5	75	13.2	20
Sub-total*	578.4	42	386.8	16
Coffee cultivation	34.2	4	31.7	32
Cocoa cultivation	-	-	11.0	100
Purchasing	4.2	-	8.7	38
Entrepreneurial	7.0	79	1.5	-
Marketing	7.4	81	0.2	-
Sub-total	52.8	25	53.1	46
Total	631.2	40	439.9	20

* Includes fencing services which were not exchanged with non-residents.

437 operations in the cash sector are conducted, in part at least, according to traditional attitudes.

437 476 Table 11:16 gives details of labour assistance received from and given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

438 462 562 The breakdown of the totals for the whole survey according to sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1] and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

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Table 11:17

Inonda: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce:			(lbs)			(lbs)
Taro	40	60	5,494	6	94	6,307
Sweet potato	31	69	1,419	17	83	1,235
Yam	36	64	406	19	81	457
Banana	42	58	1,098	34	66	553
Pumpkin	21	79	521	16	84	410
'Soup'	70	30	261	3	97	266
Coconut	48	52	326	56	44	431
Sugar-cane	49	51	546	33	67	662
Areca	42	58	93	36	64	39
Other garden produce	44	56	1,566	26	74	1,089
Fish	49	51	174	71	29	211
Wallaby	81	19	318	85	15	276
Pig	77	23	1,482	85	15	1,923
Other produce of hunting, fishing and foraging	55	45	157	46	54	179
Other weight items	-	100	160	48	52	48
Labour services:			(hrs)			(hrs)
Cash	98	2	52.8	67	33	53.1
Subsistence	88	12	578.4	78	22	386.8
Storebought goods:			($)			($)
Rice	58	42	56.74	33	67	12.94
Tinned fish	67	33	29.98	54	46	6.16
Tinned meat	66	34	17.00	54	46	1.30
Bread	82	18	17.50	89	11	3.08
Sugar	75	25	17.84	100	-	1.62
Salt	48	52	1.24	-	100	0.12
Trade tobacco	71	29	21.24	45	55	2.26
Other foodstuffs and cigarettes	82	18	69.34	67	33	5.80
Clothing	60	40	77.04	55	45	6.70
Cooking utensils	21	79	9.76	-	-	-
Other storebought goods	88	12	42.60	14	86	0.78
Cash	88	12	337.36	90	10	340.70

	Men	Women	Total
Number of days surveyed	1,443	1,339	2,782
Percentage of total	52	48	100

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they acquire less than men in this way) and husbands also give their [439] wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the [556] routine daily exchanges of cooked food. This is true of flour also in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

438 exclusive. Representatives of the external agencies were, for this purpose, grouped in a single category as 'organisations' (for example, the local government council, the army, the markets and trade stores). The term 'subsistence villager' includes those growing cash crops.

Table 11:18 shows how transactions of each category of goods and services are distributed among partners according to their occupational category. Items which deviate significantly (in most cases between 10 and 15 per cent) from the mean for their respective categories are shown separately.

As might be expected, the dominant position of villagers in exchanges of subsistence items is clear. For several items they account for 100 per cent of the total, although in the case of Xanthosoma only 34 per cent was acquired from this source. One household received several large gifts of the tuber from a New Guinea plantation labourer it had befriended, while some was also purchased at Popondetta market. Other noteworthy deviations include fish and game where significant quantities were sold at the market or given to settlers. In fact 34 per cent of the subsistence produce disposed to settlers comprised pigmeat, due, specifically, to a villager hunting on behalf of a relative on two occasions.

439 In contrast to the subsistence items, only a minority of non-traditional acquisitions is from villagers. Disposals of such items are smaller than acquisitions and only in a few cases - rice, tinned fish and clothing - is the total value above $6. Most disposals, particularly of food, are to other villagers. Most (over two-thirds) of the non-traditional items are acquired from trade stores (organisations). However, other people make significant contributions of some items: wage earners provide over half the alcoholic drinks, half the salt and considerable proportions of the rice, tinned fish and meat, and cigarettes, while the settlers are also a minor source of foodstuffs. The villagers clearly derive considerable benefit from the continued operation of the gift exchange system with these people, but most particularly with the wage earners who participate more fully in the monetary economy than settlers.

437 As regards labour services, almost all acquisitions are from subsistence villagers. Disposals in the subsistence sector naturally go largely to other villages although some help is given to settlers. In the cash sector, one-fifth of the labour services goes to settlers but none is received from them.

437 Most cash transactions are effected with organisations (52 per
434 cent of acquisitions and 77 per cent of disposals) but exchanges with other villagers are of secondary importance. Settlers and wage earners also play an important role as sources of cash. The largest item in transactions between villagers consisted of $36 paid out by the entrepreneur to the six men who worked for him on

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437 the construction contract. Most of the rest was exchanged as gifts
434 or loans. Nine dollars was received from settlers as wages, the rest as gifts or loans. Most of the money received from wage earners was in the form of gifts from kin or friends, but a small amount was acquired early in the survey by the sale of coconuts and bananas to road-workers. Gambling winnings accounted for half the money received from settlers, and wages a further 25 per cent. A total of $12 was received by two people in remittances from a kinsman working in Madang. Acquisitions of cash from organisations are mostly in the form of payments by the Administration for goods and contracts, wages from the road-construction company and receipts from marketing, while disposals consist mostly of payments to trade stores and council tax.

432 In summary, it may be said that the bulk of exchanges of subsistence produce are with other villagers, except for sales of certain items at market and generally small exchanges with settlers retaining firm links with their village-based kin. Transactions of cash and storebought items are largely confined to organisations, other villagers and wage earners in the Popondetta sub-district. Labour services are almost wholly with other villagers, apart from a little assistance given to settlers.

438 438 <u>The geographical dimensions of exchange</u> (see Maps 2 and 5)[A]

437 (i) <u>Subsistence produce</u>. Tables 11:19-24 show the locations of partners (whether people or organisations) with whom Inonda people engaged in transactions during the survey. Most are villages, but they also include plantations, settlement blocks, mission stations and isolated trade stores. Tables 11:19 and 11:20 present the information for transactions of subsistence produce and reveal that almost two-thirds of acquisitions come from within the village itself and a further 25 per cent from people living within a radius of two miles. Seventy-one per cent of the disposals are to Inonda villagers and a further 18 per cent to people within two miles' radius. People or organisations (particularly the market) at a distance of five miles or more account for 11 per cent of both acquisitions and disposals. The distribution reflects primarily the closeness of contacts with kin, most of whom (apart from affines) live within two miles of the village at Ajoro (which moved its site during the survey and changed its name to Hahemo), Ijika, Mosou and the Girua settlement block. The relationship with the road construction workers' camp at Evundo followed the marriage of an Inonda girl to a New Guinean labourer. Links with places at a greater distance are also almost exclusively based on kinship. Several households have consanguineal ties with Sewa and Urio villages; two households in particular maintain close contacts with relatives in Ururu, Popondetta and Hohorita and another household with the wife's kin at Sangara plantation and in Kendata village

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A. [See Category 102, pp. 8, 52--Analyst]

437 on the western slopes of Mt Lamington some 13 miles away (but 40 miles by road). As will be seen by comparing Tables 11:20 and 438 11:22, links between Inonda villagers and kin who are in wage [439] employment in Ururu, Popondetta or on plantations are characterised by an outflow of garden produce from Inonda and an inflow of store-bought foods, clothing and cash. Many of the disposals to people from places more than two miles distant take place in Inonda - a string bag of vegetables weighing 35 lbs or more is rarely carried for any great distance and this in itself ensures a comparatively low volume of transactions of vegetable produce over distances greater than three or four miles. One of the main items of long-distance exchange is arece, which Inonda people receive mostly from villages such as Sewa and Kendata higher on the slopes of Mt Lamington.

In general, about half the subsistence transactions with people in the above places is of taro, with sweet potato, banana, sugar-cane and pigmeat also prominent. The bulk of acquisitions from kin in Urio, however, was of sweet potato, which had been planted as a 'catch crop' on land cleared for cocoa trees. The Xanthosoma bought at the market formed two-thirds of the acquisitions from Popondetta and fish and game formed almost half of the disposals, these going almost entirely to the market. Half of the acquisitions from Ururu (the mission station at Popondetta) were bananas - presumably such a crop is most easily grown by mission staff with little time (and land) at their disposal.

437 (ii) Labour services. The Inonda people receive over half of all labour services from their co-residents while most of the others came from only three other places: Sewa, where the entrepreneur's mother's sister's sons live; Ijika, where there is a branch of one of the component lineages of the Andiriha clan; and Kendata, the home village of the wife of one Inonda man (see Table 11:21). In the case of Sewa and Kendata, young people came to stay with and assist their Inonda kin for periods of a few weeks; the Sewa men assisted particularly in sago-making and construction, but also in some tasks related to the cash sector. Disposals of labour services are mainly to Inonda people but a considerable amount of assistance in cash sector tasks goes to kin in Ijika and to settlers on the Cirua block. It should be noted that, although no labour assistance is received from settlers, Inonda people receive more commodities, both traditional and non-traditional, from the settlers than they give to them.

439 (iii) Storebought goods. The distribution of transacting 366 partners for non-traditional goods differs greatly from that for garden and forest produce (see Table 11:22 and 11:23). The principal factor involved is the presence of trade stores as the main source of such goods. Thus, Popondetta, with several stores and within reasonably easy travelling distance, provides 40 per cent of Inonda people's total acquisitions of non-traditional goods,

Table 11:21

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Inonda: the geographical distribution of labour service transactions

Item	Acquisitions				Disposal			
	Labour, cash sector	Labour, subsistence sector	Total labour services		Labour, cash sector	Labour, subsistence sector	Total labour services	
Village	Percentage		hours	%	Percentage		hours	%
Inonda	54	56	350.7	56	54	83	351.2	80
Hahemo and Ajoro	-	1	7.5	1	-	1	4.0	1
Ijika	21	3	27.2	4	19	7	36.7	8
Mosou	-	1	7.2	1	-	3	10.5	2
Sewa	22	29	179.5	28	-	-	-	-
Evundo	-	-	2.0	-	-	-	-	-
Popondetta	3	-	1.5	-	-	1	2.7	1
Ururu	-	1	8.0	1	-	-	-	-
Kendata	-	8	47.6	8	-	-	-	-
Girua block	-	-	-	-	21	4	27.5	6
Banga	-	-	-	-	-	-	3.0	1
Jonita	-	-	-	-	-	1	1.0	-
Urio	-	-	-	-	6	-	3.3	1
Total	100	99	631.2	99	100	100	439.9	100
Total hours	52.8	578.4			53.1	386.8		

although for some items the proportion derived from people or stores in Popondetta is considerably smaller. These latter include items widely-stocked in small village stores and items that circulate within the gift exchange system, such as rice, tinned fish and sweet biscuits. The prominence of Evundo as a source of non-traditional items was due to the opening of a store there in mid-1964 rather than to the links established with the road labourers' encampment. At both Ijika and the Girua block are trade stores where purchases were made, although gift exchanges were also effected with kin living there. Goods obtained from Saiho, Sangara and Ururu are exclusively gifts from kin in wage employment rather than purchases. As a result of the distribution of stores and of wage earning kin, over 55 per cent of the non-traditional goods acquired by Inonda people come from distances greater than five miles. Disposals by Inonda

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431 people, however, are almost entirely in the gift exchange system and conform more closely to the pattern of disposals of garden and forest produce. They include the sale of copra to the co-operative society at Oro Bay.

437 (iv) Cash. As with storebought goods, most cash is derived [434] from Popondetta (see Table 11:24), largely in payments from administrative agencies for goods or labour. Over half that acquired from Inonda represents payments by the entrepreneur to those who worked on his contract. Similarly, acquisitions from Evundo and the Girua block are also in the form of payments, from employment by the construction company and a settler respectively. [431] The money from Oro Bay was from the sale of copra. Other cash is in the form of gifts, the main sources being villagers in Inonda and wage-earning kinsmen in Ururu, Popondetta, Saiho and Hadang. Since expenditure is directed primarily to trade stores, the pattern of disposals of cash is very similar to that of acquisitions of non-traditional goods. Most goes to stores in Popondetta; disposals within Inonda include the payments to labour, purchases at the trade store and [651] gifts. Payments of tax to the Higaturu Local Government Council account for over one-tenth of all cash disposals. Transactions of significant sums of money are restricted to people or organisations

Table 11:24

Inonda: the geographical distribution of monetary transactions

	Acquisition		Disposal	
	Total $	Per cent	Total $	Per cent
Inonda	61.80	18	88.52	26
Ijika	3.10	1	9.10	3
Girua block	38.80	12	5.04	1
Mosou	4.94	1	5.60	2
Sewa	4.10	1	0.50	-
Evundo	17.20	5	28.06	8
Urio	-	-	5.92	2
Popondetta	169.40	50	152.30	45
Ururu	14.50	4	4.20	1
Jegerata	2.00	1	-	-
Saiho	4.00	1	-	-
Higaturu	-	-	38.00	11
Hadang	12.00	4	-	-
Oro Bay	2.32	1	-	-
All other places*	3.20	1	3.46	1
Total	337.36	100	340.70	100

* Six in all for acquisitions; 8 in all for disposals.

B: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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from only a few places; however, small sums, perhaps only 10c or 20c, often change hands between kinsmen or friends from distant villages meeting in Popondetta and seem to serve the same function - of maintaining tenuous links - as exchanges of areca, sugar-cane or snacks bought in a store or hotel.

Chapter 12

The two villages compared

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(a) The form and content of exchanges

The data on exchanges are of a less comprehensive nature than those dealing with activity patterns. Hospitality, 'a cardinal virtue with the Orokaiva' (Williams 1930:37), has been disregarded as has a range of minor transactions, such as the loan of tools, temporary care of children, the casual movement of the lime gourd from hand to hand and much of the sharing of areca at informal gatherings. However, such exchanges replicate those of the more important goods and services dealt with, in terms of both their form and function.

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There are only minor differences identifiable in the basic characteristics of exchange in the two villages. Each manifests a demand for cash that greatly exceeds the returns obtained from cash cropping, with the latter only one of several important sources of income. Nevertheless, the juxtaposition of monetary and non-monetary exchanges largely conforms to traditional concepts of morality where the principle of reciprocity operates within the 'sympathy group' and monetary transactions are effected, almost exclusively, with indigenes lying outside this group and with institutions located in the external sector of the economy. Thus a precarious, and probably only temporary, compromise has been achieved in which group solidarity and individual commercial aspirations each operate within socially and geographically identifiable contexts. The decision of the senior member of the largest Jegase lineage to 'market' pigmeat among villagers, and Linton's own dilemmas in the matter clearly demonstrate the vulnerability of the Orokaiva ideal of reciprocity in the face of progressive commercialisation of their economy.

However, to make a strict division between monetary and non-monetary exchanges can be misleading for, not only do specific goods and services marginally overlap the two categories, but many of the latter exchanges are not unlike the former in character. The principle of reciprocity underlies them all, although the system does not require that like be exchanged for like, and one type of goods is often reciprocated by another or goods by

service. In Sivepe sustained reciprocal exchanges operate primarily among members of an extended family and secondarily within a single generation (as between cross-cousins or ego and his wife's brother). In the first a significant degree of economic inter-dependence is apparent, while in the second exchanges serve to support alliances which may be both social and economic in character. Because of the continuing nature of the relationship no final settlement occurs and reciprocation is, therefore, frequently delayed. Elsewhere major exchanges are more typically characterised by immediate reciprocation, particularly where the obligation is a specific one relating to particular goods or service. In consequence only the casual exchanges, which themselves comprise but a small proportion of the total quantity of goods and services transacted, can be judged a drain on resources in the sense that they might serve to inhibit individual aggrandisement.[1] Furthermore, in most instances, the proportion of total production exchanged is so slight that the system cannot be considered to function as a major limitation on productivity. Even where the proportion is high, as with pigs or sago, there is normally immediate reciprocation to an equivalent, and often negotiated, value. In effect, therefore, it is less the goods than the relationship which determines the type of exchange adopted and according to the available evidence, this applies regardless of the extent of individual involvement in the monetary economy.

With the exception of labour services the mean volume of transactions per man-week in all categories in Inonda is about twice the level of that in Sivepe (see Table 12:1). However, the area over which most of them operate is much the same; at Inonda, 87 per cent of the acquisitions and 89 per cent of the disposals of subsistence produce are effected within a radius of two miles of the village, compared with 91 per cent and 81 per cent respectively at Sivepe. This difference of scale is largely explicable in terms of the greater socio-economic diversity of the Inonda neighbourhood and, related to this, the fact that virtually all the village's cash income is locally derived whereas at Sivepe a major source is remittances from kin, with whom there is little direct contact.

At Inonda a more restricted range of subsistence produce is available; with the exception of sago, there is a scarcity of staple foods suitable for consumption during the dry season. At the same time there is an abundance of fish and game within the group territory. Within a short distance of the village live ex-servicemen settlers (some of whom are kinsmen) and plantation labourers, while access to the wage earners in Popondetta is facilitated through the market there. The limited number of Inonda people in the permanent

[1] See pp.181-2.

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Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

Table 11:18

Iqunda: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisition						Disposal				
	Total	1	2	3	4	5	Total	1	2	3	5
	(lbs)						(lbs)				
Subsistence produce	14,032	85	9	5	-	1	14,088	78	7	8	6
deviant items:											
Xanthosoma	403	34	2	52	-	12	141	81	-	17	2
Fish	174	94	2	4	-	-	211	69	2	6	23
	(hrs)						(hrs)				
Labour services	631.2	98	-	2	-	-	439.9	93	6	1	-
Cash sector	52.8	97	-	3	-	-	53.1	79	21	-	-
Subsistence sector	578.4	98	-	2	-	-	386.8	95	4	1	-
	($)						($)				
Storebought goods	373.04	9	3	17	-	71	43.40	80	4	3	12
deviant items:											
Rice	56.74	15	7	39	-	39	12.94	82	6	1	11
Tinned fish	29.98	17	5	20	-	58	6.16	86	3	1	10
Tinned meat	17.00	17	5	34	-	44	1.30	100	-	-	-
Bread	17.50	12	1	9	-	78	3.08	81	13	-	6
Sugar	17.84	2	7	17	-	74	1.62	86	-	-	14
Tobacco	21.34	4	5	6	-	85	2.26	87	4	9	-
Flour	13.80	6	-	3	-	91	0.90	100	-	-	-
Clothing	77.04	5	-	14	-	81	6.70	100	-	-	-
Cartridges	7.22	10	8	3	-	79	0.50	100	-	-	-
Cash	337.36	21	11	12	4	52	340.79	19	-	4	77

1 = subsistence villagers; 2 = settlers; 3 = wage earners within Northern District; 4 = wage earners outside Northern District; 5 = organisations.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OU23 Orokaiva OU23

438
439
1151

(b) The commitment to cash

437 Among the Orokaiva money serves to fulfil commitments to the external sector of the economy, to add variety to the diet and to acquire substitutes for those items of the traditional technology no longer produced. In these respects there is a manifest commitment to cash, but at the present level of acquisition there is insufficient available to effect major improvements in the standard of living. While Orokaiva priorities for its use may differ from those preferred by an innovating agency it is scarcely possible to speak of 'inappropriate systems of consumption which act as obstacles to increasing production and commercialisation'.[1] The available data demonstrate the absolute insignificance of large ceremonial exchanges and, in this respect, the Orokaiva, as observed, do not conform to the pattern generally described in the ethnographic literature dealing with other traditional societies. In the absence of a developed market economy and the scarcity of its basic prerequisite, cash, reciprocal exchanges based on kinship serve as an effective means of exploiting the resources available to the several socio-economic groups and of providing an important measure of social security.

[71]

The analysis of activity patterns has demonstrated the two communities to be primarily subsistence oriented. Data on exchange reveal that, while much cash is acquired independent of direct productive effort, the requirements of subsistence largely dictate the manner in which it is utilised. This consideration applies to members of all the socio-economic categories where, for example, wage earners are unable to provide accommodation for their dependents and ex-servicemen settlers have inadequate resources of capital and labour to develop their holdings satisfactorily. It would appear that it is the villagers' concept of subsistence itself, and their assumption that it is both distinct from commercial activities and that viability at this level must be achieved prior to involvement in the latter, which is central to the problem of development rather than simply considerations of mechanisms of exchange or availability of labour. It is because of this that the issue of 'marketing' subsistence products among kin emerges as a crucial one to the Orokaiva.

[p. 284 is blank]

[1] See p.182.

I

The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

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[1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

even have been sufficient qualification for admission to a group, but without precise and comprehensive genealogical information this cannot be asserted. It is possible, for example, that some households could trace approximately equivalent but very distant genealogical relationships to both bride and groom, and that place of residence then determined the group with which they were aligned.

Williams (1930:137) describes a marriage payment typical of the mid-1920s. It included no cash and the traditional valuable would have been worth only $10.00 at 1962 prices. The traditional valuables in the bride-wealth described here were worth about three times as much and in addition $80.00 in cash was included. The people clearly regarded the cash as the most important component. Those genealogically and residentially closest to the groom contributed most cash; there was considerable formality associated with the payment of it; and in discussions of the bride-wealth the dominant topic was the cash component. The bride's father and brother received most of the cash but only a small proportion of the traditional valuables and they showed little interest in the latter. Households with lesser claims generally received items other than cash. The importance of traditional valuables in marriage payments has therefore declined markedly as a result of the introduction of cash to the economy.

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Table 15

Replacement value of tools and equipment

	A	$101.70	E	$138.05	I	$164.30
	B	87.50	F	82.90	J	142.80
	C	254.80	G	113.60	K	46.40
	D	54.70	H	376.45	L	222.40
Average		$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

241 242 317 year. Thus, over a ten-year land-rotation cycle, approximately two and a half acres of land are required to support one person.

241 433 177 [437] The major change that has occurred in New Guinea agriculture with the coming of white men has been the introduction of cash crops. When Europeans first arrived they found a subsistence economy. Some trade was conducted but it was almost entirely by barter and was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P.2-A)

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were obtained as gifts from friends or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

19: Schwimmer E-S (1966-1970) 1979 OJ23 Orokaiva OJ23

We have to establish values for X, Y, C for each episode, i.e. for each prestation. Under 'social behaviour patterning rules', we would need to treat formal and contextual social relations between classes of actors as contexts because a quite different 'meaning' needs to be attached to a prestation according to whether it is made between, for instance, cross-cousins, affines, feasting partners or hereditary friends. (For the Orokaiva, these differences are glossed in Schwimmer 1974.)

We could not retain the otherwise very useful class of 'convertibility rules', first established by Firth (1939), because prestations of taro, yam, areca nuts, pig, different types of ornaments etc. may follow varying 'rules of syntax'. Even if such objects belong to the same 'sphere of exchange', their convertibility as signifiers can never be assumed on the basis of a functional classification but must each time be established by specific semiotic investigation.

To give another example, in an investigation of daily intra-village taro prestations among Orokaiva I found that the meaning of the gifts was systematically affected by their frequency (chronemic rule) and by the distance between donor's and recipient's residences (topological rule). Subtle nuances in social distance could thus be signified.

These examples give some idea of the kind of rigour the semiotic analysis of exchange demands. While most kinds of constitutive rules to be discovered in exchange systems fall into the standard types enumerated by Bouissac, there are two kinds that may be specific to ritualised prestations. These need to be briefly presented. The first kind may be called 'equivalence rules', and specifies the conditions under which two patently different objects will be deemed to be 'equivalent' in the sense that one is fair (balanced) exchange for the other. The term is due to Daniel de Coppet (1968) who gives examples, taken from Malaita ethnography, that show very clearly that the equivalence here is not inherent in the objects exchanged but purely in the representations Malaitans have about what they stand for.

If we use the same symbols as before for constitutive rules, and write a transaction as two prestations P1 and P2, and if

$P_1 = X_1$ stands for Y_1 in context C
$P_2 = X_2$ stands for Y_2 in context C

then P_1 and P_2 are equivalent if the recipient in P_2 considers them to be so. Where social relations between exchange partners are, ritually speaking, symmetrical, equivalence will normally be restored by a return gift of objects of the same kind, the same quantity, the same quality. The need for writing equivalence rules arises where role attributes or formal capacities are complementary, and where X_1, X_2 cannot be objects of the same kind so that their equivalence must be established by a cultural rule. The most famous example is the *muvali/soulava* exchange in the *kula*. Malinowski wrote (1922: 356) that the two ornaments are 'equivalent' if of the same quality. Also, 'the armshells are conceived as a female principle and the necklaces as the male.' Moreover, speaking metaphorically of Dobuans (recipients of 'female' *muvali* armshells), Trobrianders said 'they are women'. We may therefore in this case

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land giver/land taker; human partner/spirit partner. In all these cases the equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are 'translation rules', i.e. rules about the translation of sentiments into prestations and about inferring sentiments from prestations received. These rules are elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest equivalent of *why?* is *do eto?*, meaning: what having been done, what having been?) I found that (except for identical return gifts), such questions were usually answered in terms of sentiments felt or professed by the donor towards the recipient. Bridewealth was always explained as a way of appeasing the wife-givers' anger at the taking away of their daughter. This anger is not just in the wife-taker's mind but is expressed by the wife-givers by certain stock actions and phrases (as in any joking relation) behind which there are individual variations in genuine attachment to the daughter, genuine aversion to the affines and shrewd calculation. To give another example, many feasts are made in order to restore amity between groups, in which case the small preliminary gift of betel nut and food accompanying the invitation (*sope ikari*, Schwimmer 1973: 151) would stand for an offer of amity (translation rule) and acceptance of the invitation would signify the prospective guests' willingness to forget past grudges.

Semantically, gifts encode sentiments in many ways: by what is given, how much, of what quality, in what manner, where, when, in the context of what relationship and so on.[2] The recipient decodes: he reads the donor's sentiments in the prestation—the only language that, in the cultures discussed here, does not lie. Words are not to be trusted: but a gift is sacred like a statement under oath. Sentiments do not, of course, objectively explain gifts but the translation rules specify what message a particular gift conveys about the donor's sentiments. While social anthropology may not be interested in sentiments as such, it should be interested in the codes in which they are ritually expressed and in which the receiver is urged to change his own sentiments. To the extent that the principle of reciprocity has weight in a society, conflict will tend to be resolved by prestations that will re-establish sentiments of amity rather than by the interpretation of (often ambiguous) rules of law. Such prestations recompense the distress caused rather than the torts committed.

The rest of this article will present an example of semiotic analysis of an exchange system. This analysis, based on Orokaiva data, starts (part II) by investigating terminology used in discourse about gifts, debts, exchange and reciprocity. It explores the relation between the constitutive rules and the ideology of reciprocity.[3] The second step in analysis (part III) will relate this ideology to the overall Orokaiva world-view, thus demonstrating that the principle of reciprocity is not an observer-improvised category but an integral part of the conceptual system. Finally (part IV), we shall consider the relation between the constitutive rules and transactional practices and test Sahlins's theory of exchange against the semiotic analysis of Orokaiva data.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

will make him a present; when the host village makes a return visit to the village of their previous guests, individual partnerships tend to be maintained, so that each man can make a return gift to his previous host.)

Finally a girl whose father was absent from the village invited the two strangers into her house. The father, upon his return home, accepted the hero as guest and partner and performed all the proper duties of a host tending their hair, dressing them in new raiment, feeding them, presenting them with gifts. When the people of the host village went down to the coast to return the visit, they were received most stingily, except for the man who had hosted the hero. For the hero turned out to be a man of fabulous riches with which he loaded the only guest who had given evidence of a spirit of generosity.

The hero's name, Javaite Poromo, is said to mean 'giving food to friends', a gloss I was unable to check as the words are not otherwise part of current Orokaiva vocabulary. 'Javaite' is called out at feasts in the sense of 'come hither'. The conclusion to this tale is a long recitation by Javaite Poromo on the rules of gift exchange; he is thus presented as the hero who established this institution among Orokaiva. The rules, as stated in the text, did no more than restate a number of rules I had already elicited in previous interviews and to which reference will be made below. The essential point, for the present, is that the *hande embo* is he who gives without thought of return, in other words, for whom giving is a categorical imperative. It is reinforced by sanctions: 'If you don't give, you are bad, people will pull you down'.

Unlike Javaite Poromo, most men have limited resources. Nonetheless, they follow the same rules of gift exchange as he whose resources are infinite. He is the model all must follow. Now, from the tale quoted above, it is clear that the hero accepts the notion of debt: the hospitality he had received created a debt he was obliged to repay. The Orokaiva term for this concept is *tihanga*. The repayment of the debt then becomes a 'return' for the gift. The Orokaiva term for 'exchange' (*mine* or *minemine*) is simultaneously the term used to describe the 'return'. No terminological distinction is made between an exchange of gifts, or services, or other amicable prestations on the one hand and an exchange of injuries (murders, sorcery, thefts, etc.) on the other. The term for retribution as well as reward is *minemine*. In speeches by Orokaiva ideologists who wish to criticise the old order (where vendettas were just as prevalent as gift exchange) the term *minemine* is regularly used in the merely negative sense of the old days where a clan killing an enemy was thought to 'owe' a death to that enemy's clan and the enemy had a recognised right to make such retribution.

The Javaite Poromo rules about the recognition and estimation of *tihanga* are complex. Balance is a basic factor, once it is recognised that *tihanga* has been incurred. When a return gift re-establishes balance, it is called *inono* (enough). Just what quantity counts as *inono* depends on context. All else being equal, gifts should be exactly balanced (*perukari*). Thus, at a feast taro bundles are, at some stage, tied to a pole. The height of the food pile is marked on the pole. So is the height of food pile that is received in return. Balance then means that the height of the two piles should be the same. The term *isapa* (little, too little) is used to signify that in the view of the recipient, the

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

repayment was too small. It is also used in the sense of 'earnest' of a repayment that will be made in the future. If the insufficiency complained of is not made up, effectively a *tihanga* remains.

The term *pavonei* is used to indicate that the return payment is considered excessive. Far from being considered gratifying and proper, such a state of affairs is considered provocative and unfriendly. The principal meaning of *pavonei* is a stick planted in front of a coconut palm by a man who has taken some nuts and who thus acknowledges his debt. The setting up of a *pavonei* at a feast means thus to set up in the mind of the recipients of a repayment the consciousness that they are again indebted to their exchange partners. The act of setting up such a *pavonei* is often referred to as *kambari*, a verb that means principally 'to bite, to kill'. The effect of it is that the victims of the *pavonei* will themselves return an excessive repayment, and that the whole exchange will escalate to the distress of both parties. The outcome may either be war or, if relations between the parties become more amiable, one side may decide to call off the battle by restoring the balance.

A very different and entirely legitimate imbalance is what is called a *hande mine*. This is a gift such as should be made when returning a loaned object (implements, ceremonial paraphernalia etc.). It should also be added when repaying a gift made at a time of shortage when the donor himself was badly in need of the thing he gave away. A special case of this are the food gifts made to a bereaved family after a death (when the family may not garden, and when crops from the deceased's garden are no longer consumable by his family). The bereaved family must add a substantial *hande mine* to the repayment of such food gifts because of the presumption that the sudden unforeseeable demand made on the donor's food resources would create distress. The *hande mine*, if omitted, is said to create a *tihanga*.

In some respects the notions about *hande mine* resemble what Sahlins said about the Maori notion of *hau*. The magnitude of the *hande mine* expected with the return of a borrowed object is not related to the length of time it has been kept, but rather to the success the borrower had with it. If a hunter catches nothing after borrowing a gun, he owes nothing. If he has a large bag, he is expected to be generous to the lender.

The question that concerns us here is to distinguish the situations where *tihanga* is created from those where it is not created. This is no easy matter especially because *tihanga* in close associations is extraordinarily hard to establish clearly. I have shown that Orokaiva householders do sometimes count as gifts meals of cooked vegetable presented to certain categories of kin; in comparison to western society far more things are counted in the balance. The crucial distinction seems to be that some debts are reclaimed while others are not. Debts incurred by a child may be claimed by the parents when the child is adult, but in fact the child may start quite early in making some prestations, viz. when he has a small garden of his own. There is nothing extraordinary in the pattern of household co-operation, but many things that in western society would be classified as co-operation are classified by Orokaiva after the model of *hande ari* and *tihanga*.

It is therefore futile to seek to demonstrate an exchange ideology merely

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

III

The above outline of the glories of *hande* and the pains of *tihanga* present a model remarkably like Sahlins's 'balanced exchange', but drawn from what one might call Orokaiva ethnosociology. This Orokaiva model is, however, no more than a first lesson in reciprocity. My informants, immediately after telling and explaining the Javaite Poromo tale, proceeded to a second lesson on what they considered a slightly more advanced level. This was prefaced by: 'I should like to tell you why we tell the story of Javaite Poromo'. It soon turned into the recounting of another myth, complete with commentaries and explanations.

A handsome young man came to a village, married a girl but instead of taking her to a village, he took her deeper and deeper into the bush. It turned out that he was, in fact, a pig who had merely disguised himself as a man for the visit to the village. They lived in the bush where she had a son from him who was a white cockatoo (*agena*). As the pig, together with his friends, now wished to kill the woman, she took refuge, with her son, on a *peromba* tree. When the pigs proceeded to try and uproot the *peromba* tree the mother sent her son to her native village with a message. When he returned, the pigs had almost uprooted the tree, but they fled safely, the mother in the son's beak. As they arrived, the mother warned her kinsmen to expect the pig shortly.

When the pig arrives, he is fully and impressively decorated as before—the tale mentions specifically his fine tapa cloth, his *ganda*, his pineapple club, his headdress of red cockatoo feathers, his shield. The kinsmen convey him to a platform with ceremonial greetings appropriate to a visiting affine, fall upon him with spears, cut him into small pieces and eat him.

The commentary given by informants briefly shows the link between this tale and the question of reciprocity. It was by the killing of the pig, informants said, that the present relationship between pig and man was at last established—they kill us; we kill them; they are given to the land for us to eat. This is in contrast with relations between men, based on mutual visits and friendship. This contrast between pig/man and man/man relationships is not in the body of the text, but its relevance was pointed out to me by the two informants.

It will be fully clear to any initiated Orokaiva why this tale explains the principle of reciprocity. It is also probably quite clear to any trained anthropologist. I think, however, that I am obliged to offer a translation into western jargon. The tale is not for children but, it is implied, for initiated men, i.e. those who have a knowledge of spirits. Uninitiated people think that the strange decorated figures one sees at certain ceremonials are spirits, because they have the plumes of birds, the paint of the dead and the bone and shell ornaments of the ancestors. This is not so; these figures are all men disguised as spirits and ancestors. These disguises ought to be so perfect that the person beneath them is not recognisable. In any case, if anyone recognises them, it would be very rude to make this known. They must be respected in every way as though they were the ancestors they represent. The initiated, however, know that the living man and the ancestor are both present in the decorated man.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Now who were these ancestors? They were all human but at the same time they might inhabit the body of an animal or borrow some of an animal's bodily characteristics. Such a tendency would go with a very particular affinity with the animal in question, a partaking in its powers. Many stories are therefore told of ancestors with such affinities. As for pig stories, the most famous is that of Totoima, a man who on occasion wore pigs' tusks and then was murderous in the extreme. When he was finally killed, his body was cut into many pieces and the men who ate from it multiplied miraculously and became the ancestors of great tribes. Another story, of which only a very incomplete version survives today,[6] concerns a 'pig-man' who had assumed the body of a pig but was really a man. Men built a house for him and gave him taro for which he gave them real pigs in exchange. Men broke off this exchange, however, and since then men and pigs have not made exchanges. Nonetheless, he is remembered as a great man as he set up the practice of exchanging and was the first to provide men with pigmeat, thus making them strong.

In this time of the ancestors, men and animals exchanged and communicated with each other without restriction. Yet at a certain moment, a strict division began to be made between those with whom one can make exchanges and those who must be regarded as outside exchange. Unless there are such clear limits to exchange, men would never be safe. This is what we learn from the tale quoted above, the subject of which is, as one might say, *The Pig with the Ganda*. Now, as the story is told, this was not a man in the guise of a pig, but it was really a pig. When he came to a village, he changed the various parts of his body into the ornaments that men use even today for ceremonial dress. His bristles changed into the feathers of the red cockatoo, his jaws and teeth changed into the ornament called *ganda*, normally made by men from pigs' tusks and dogs' teeth and held between the teeth when men dance. It was in that guise he could seduce women (see fig. 1).

He changed himself, so to speak, from a real pig into a symbolic pig and was thus indistinguishable from a man who would likewise change himself into a symbolic pig.

It is the case that whenever great exchanges are made between men, they all wear the decorations and disguises given to them by their ancestors. This is necessary because today, men are always at war and harmony between men existed only in the days of the ancestors. During feasts men therefore recreate the world of the ancestors which was the only world of peace. But the pig with the *ganda* must be excluded from such feasts. There must be separation and thus confinement of the world of exchange.

I have given this reconstruction informally, instead of deriving it systematically from the many texts on which it is based. It exemplifies the type of religious discourse which enters into any serious explanations offered by Orokaiva. What it explains, in effect, is 'negative reciprocity', the state of permanent war that exists outside the confined universe of ceremonial exchange. This certainly includes the war between man and nature, but most probably it includes more than that. It is worth remembering that Orokaiva describe the mountain tribes with whom they refuse to make exchanges as

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

301

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites who tried to make ethnographic maps of the Northern District tried to find the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put on the map, as the *pereho* category included quite different groups according to who was speaking. My concern was here to give the conceptual boundaries of the exchange universe in Orokaiva terms, but there are real geographical boundaries, different for each village, which correspond to such concepts. Williams (1930) already spoke of two systems of Orokaiva morality, one within the 'sympathy group' which is his term for the exchange universe, and another where there is, in principle, a permanent state of total war even though there will always be a few islands where trading partnerships are found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and negative reciprocity, what about Sahlins's most fruitful and original category, generalised exchange? It is possible to find a category of relations among Orokaiva where it is denied that any *tihanga* is ever recognised. There are plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I doubt however whether that particular category corresponds to 'generalised reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

nut or cigarette. Secondly it includes help in most everyday tasks, including help with housebuilding and the like. Thirdly, it includes the very important category of very close kin who are deemed to pool their resources. Thus bridewealth, mortuary and other big prestations involve, as a matter of course, an entire local plant emblem group where every member is expected to put in all he has. Such groups have corporate leaders, usually the oldest agnate and such leaders have supposedly full authority over all the group's resources. Within those narrow confines, they need not cajole like the *hande embo* but theoretically they can instruct. They always told me this. It so happened that I did not know any families who habitually followed such instructions. In any case it is at least theoretically possible to separate out a category of actions based on structuring principles such as 'verticality', 'horizontality' rather than reciprocity.

Orokaiva ethnosociology does not seem to recognise a *category* of rules that lies between incorporation and balanced exchange. Yet, Sahlins has argued, on what seems irrefutable evidence, that in societies such as Orokaiva 'balanced reciprocity is not the prevalent form of exchange' and even that it is 'inherently unstable' (1974: 223). According to him what is prevalent and stable is generalised exchange. Even if we subtract a little from Sahlins's generalisation to allow for the meticulous strategies of some leaders, for the tendency to abandon 'balance' where western money becomes important, for the horror of debt bondage found in egalitarian societies like Orokaiva, for pooling in corporate groups, we are still left with many facts of generalised reciprocity.

We must, moreover, reject any attempt to explain such facts as 'organisational', as mere strategising, in contrast with other tendencies of the system that might be termed 'structural'. Such an assumption, though common enough, implies that it is sometimes possible to explain the relation between a given material condition and a specific cultural norm by the mediation of a symbolic system (as we have been doing above) but that sometimes it is not possible; that when we are dealing with deviations from the norm such deviations require only a 'common sense' explanation.

What then are we to say of the innumerable transactional sequences where, in principle, one of the transactors is in debt, but where nobody is at all interested in balancing the account? The debts are not reckoned but if the creditor feels the need for some help, he goes to his debtor and asks him for it. Can such sequences be incorporated as part of the semiotic model we have outlined? We think they can. We cannot incorporate them as part of equivalence rules, because such rules normally, at least among Orokaiva, do specify strict balance. We can, however, deal with them under the heading of translation rules.

Let us say that for years A has been helping B in a long list of predicaments. B is trouble prone while A is solid. B is generous enough but he rarely has something to give. A tolerates the situation without demur because he likes the B household; he does not at all feel anxious about repayment. Nor does B feel particularly ashamed of his position. In such circumstances, there will be a long series of gifts, for which the translation rule will be something along the

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

lines of 'A feels sorry for B'. As long as that sentiment prevails, the equivalence rule is in abeyance. But it will become operative as soon as there is a quarrel. Then, however, what B will have to pay is not the accumulated ledger. B will have to pay, according to the model I have been using, *for the anger felt by A*.

It has already been often remarked, for instance by Williams in his work on the Orokaiva (1930), on the Kutubu (1976) and on primitive justice in general (1941), that in such societies one has to pay for anger, for slights, for psychological suffering, rather than for what is objectively on a ledger. If A becomes angry, he may use the ledger as his basis of claiming from B; he may just as easily demand vast compensation for 'insulting my sister', an item that does not appear on the ledger at all.

We thus face a paradox: there is an ideology of balanced exchange, but debts claimed are not necessarily those due by the rules of equivalence. By Sahlins's theory, the importance of the ledger increases with social distance. This may well be so, because social distance makes a great difference to the translation rules. In the cases where exchange is meticulously balanced in quantity—where one measured the height of the piles of taro—the translation rules usually specify that the exchanges serve to make peace, to assuage anger, to compensate for something unpleasant. From the semiotic viewpoint I am taking, it is they and not the social distance as material and mechanical fact that determine the importance of keeping a ledger.

There is a final point: balance is not only a matter of ledgers but also of equality. In an unbalanced relationship, there is a narrow line between A feeling 'sorry for B' and A feeling superior. If A should feel superior enough to B to slight him, then the anger caused by the slight would at once wipe out the ledger, at least among Orokaiva. There are peoples who more or less permit a creditor to slight a debtor. Those who do not permit it, like Orokaiva, feel some attachment for equivalence rules.

The scheme outlined here does not make a material and functional classification like Sahlins's unnecessary. On the contrary, such a classification is a necessary control on the kind of analysis here proposed. All that is claimed is that functional classifications should be made to pass through the grid of semiotic systems.

The anthropological task, with regard to reciprocity, does not however end at that point. For anthropology, this model of a closed semiotic system is a tool for resolving other, much broader questions which are best classed as historical. The penetration of Australian capitalism has introduced a very different concept of exchange, a kind of fusion of the balanced and negative modes, destructive of Orokaiva social relations, but profitable economically. The co-existence of the two systems in the same society has given to the Orokaiva exchange system an ideological weight it did not previously have, in that it began to stand for Orokaiva cultural identity as ideology, in opposition to capitalism as ideology. This polarisation had not begun in 1970, but it was strong in 1973, at least in the village of Kiorota.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
a sense of closeness to newly independent non-white states. But the
[203] information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
511 the subsistence sphere. Money was essential for payment of taxes
and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
459 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[46] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

46 be acquired without too much hard labour or threat to status, and only
436 if its acquisition does not involve foregoing other more highly valued
437 benefits. Thus, the market has a great elasticity of supply: when
435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern
583 faction was, in fact more money-oriented than were the Sivepe people.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 The rejection of both the cooperative and the competitive relationship
602 applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a
608 fruit is a ritual that is sometimes performed between a married couple; for
[824] example, when the community has decided to hold a feast. It symbolizes that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in
[431] which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 Similarly, feasting occasions between villages often result in *otavo* rela-
574 tions. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of EPTON and TEXNH.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

794 Cargo deities are renewed for each movement; in all cases their
776 return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

435 All these concepts will seem marginal until one sees their
436 implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

472 It is for this reason that Orokaiva are exceedingly interested in
474 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

437 Let us now consider in detail one of the events described by
476

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

437 Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for 476 activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

472 Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, 474 children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

[799] The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they [554] would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[27]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 25]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

462
464

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a
motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

177 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of produc-
511 tion.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tavea*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $18.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various penitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

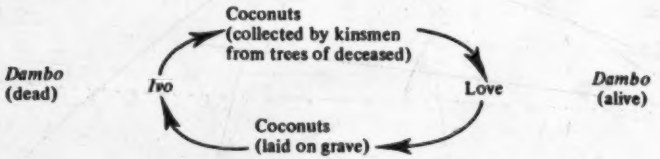
871 872 797 659 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, 366 originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe [432] people in our sample sell vegetables there regularly but seldom [438] buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 We could not complete this introductory sketch of local 648 facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had been close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the [121] Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting [101] of local men for subsequent phases of the war elsehwere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.

**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

A tendency for men to regard the season as a time for renewing social contacts became more apparent in the week of the New Year. Although New Year's day was not specifically observed, the men who were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between villages in the area appears to be usual at this time of the year. Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

433 so misguided, they have no reason to expect different results if they plant cocoa as advised by agricultural extension staff. A point of interest here is the fact that although various people volunteered this view on independent occasions, it has never been the policy of the District Agricultural Office to advocate cocoa planting in the Saiho (Sivepe) area, but neighbouring planters have also observed that this is the view expressed among neighbouring villagers.

[434] [438] [245] The areas of the gardens in which coffee was tried were too small to give satisfying returns.[1] The income of £11 earned by the sample by weeding, processing and marketing their coffee in 1962 compares unfavourably with the £13 received from the year's sales of betel nut which grows well in the area, requires no maintenance and finds a ready market at any time among travellers on the main road.

[435] It is said that enthusiasm for establishing coffee gardens was at a peak when the Administration paid 2 shillings per pound of parchment and has abated considerably since: a factor of central importance in the history of individual cash-cropping here and elsewhere among the Orokaiva is the fall of the price for parchment coffee - by more than 50 per cent since the Sivepe trees were planted.

The size of the decrease aside, it quickly became apparent to us that because the people have only a limited knowledge of the processing and marketing of coffee once the product has left their hands and no knowledge of the process of price fixation, fluctuations in price seem quite arbitrary. A general fall is seen as another instance of the inconsistent treatment they have come to expect as producers and their response is negative. The withdrawal of interest in extensive coffee production due to the uncertainty of rewards is reported to be common in most villages in this area. [245] However, while 725 people in the Saiho area experimented with coffee, only 19 people, in 8 villages, have as yet decided to plant cocoa.[2] Economists estimate that the price of each major type of cash crop currently in production in the area can be expected to fall by about another 30 per cent on the world market in the next 5 years.

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1 The average of 187 trees per grower in the Saiho Census Division (according to rough estimates available in 1963) is not significantly greater than the sample's 126 per grower at the time of our survey. The 1964 agriculture census, which contains much more reliable data, gives the Saiho average as 232 trees per grower and the present average for Sivepe as a whole as 220 trees per grower.

2 Figures from 1964 census, District Agricultural Office.

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

(a) Initial contact

177 The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

714 177 178 [491] [438] By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 46 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

Chapter 3

The village economy

433 [129] This chapter describes briefly the Orokaiva pattern of production and distribution, with particular reference to Sivepe and Inonda.[1] Traditionally the villager operated within quite narrowly circumscribed physical limits. Each community functioned largely as an independent subsistence unit, almost all the requirements of [251] life being produced through shifting agriculture and the subsidiary pursuits of fishing, hunting and foraging on its own land. Production was directed almost entirely to immediate and direct consumption, [438] none of the staple foodstuffs except yams lending themselves to storage; exchange was confined largely to kindred within the community or in closely neighbouring communities. Beyond this, minor and informal trade links had developed between some of the inland and coastal peoples, but the degree of inter-dependence established can be considered insignificant.

[436] The contemporary economy comprises both subsistence and monetary sectors, with the former dominating. Most money traffic is with the non-agricultural sector of the national economy and there is little movement of money between subsistence units.

244 (a) The subsistence sector

(i) Production. The pattern of subsistence production is, as yet, little modified by cash cropping, in spite of the latter being based on permanent tree crops which involve substantially different agricultural practices.

Gardens are made in secondary growth where the forest has regenerated over a fallow period of about ten years. Little primary forest survives among the Mt Lamington Orokaiva and, even where it [36] does, secondary growth is preferred for gardening as it is easier to clear. In addition to the shifts in garden locations, many [184] settlements also change sites at frequent intervals, the cycle appearing to be a little longer than the cultivation cycle. All

[1] More detailed descriptions are given in Crocombe and Hogbin 1963:7-13, Dakeyne 1965:54-92 and Rimoldi 1966:13-28.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. For most [476] phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach [417] maturity. In the less densely settled areas where wild pigs are [136] common, such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A,[See Category 102, p. 38--Analyst]

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

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[1] In the past they sometimes lasted several days.

438 [437] consisted in the barter of shells, lime and wooden and clay pots from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

434 [443] The main sources of cash for Orokaiva villagers are the sale of cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

241 (i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less [571] than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the [433] trees are self-sown. As well as lacking maintenance, in most cases

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged [435] and sold at one of the co-operative buying agencies at Killerton, Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 [443] (ii) Marketing. In addition to the long-distance trading of subsistence produce by coastal people, the inland people are also beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

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[433] [1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

438 are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

464 (iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

Anglican mission stations frequently employ school-leavers as 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

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[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available 166 until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to 434 hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include [438] rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[762] [2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

454 (d) Monetary and other assets

Table 4:12 shows that the monetary assets of the village in November 1964 amounted to $166.70, or $10.40 per adult resident. In contrast with Sivepe, most (67 per cent) was invested in savings bank accounts and almost all the rest was held in cash. Only two men owned shares although householder 23 intended to buy some if those of either Oro Ltd or OCGS proved their value.

Table 4:12

Inonda: monetary assets of households, November 1964
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Total
16	12.95	16.18	10.00	-	39.13
17	3.90	-	-	-	3.90
18	0.80	-	-	-	0.80
19	-	-	-	-	-
20	1.50	36.00	-	10.00	47.50
21	3.00	20.00	-	-	23.00
23	1.07	20.00	-	-	21.07
24	11.80	19.50	-	-	31.30
Total	35.02	111.68	10.00	10.00	166.70

438 [444] In October 1963, the head of household 23 established a trade store, deriving most of his supplies on credit from Oro Ltd's wholesale store in Popondetta. His stock included tinned foodstuffs, rice, biscuits, sugar, salt, tea, soft drinks, chewing gum, cigarettes, trade tobacco, laundry soap, matches, kerosene, torch batteries, clothing, razor blades and playing cards. In addition, he obtained some goods from Chinese-owned stores where the wholesale prices, particularly for rice, were considerably lower. Store customers included people from Inonda and neighbouring villages and passers-by on the main road. Business was best between February and April 1964 when construction gangs were improving this road. By July, most of the villagers had moved to the new site and a new, better-stocked store was opened about two and a half miles away, and sales of the Inonda store began to decline. When the store-owner moved to the new site, he did not begin rebuilding the store until late in December and kept only a few goods (biscuits, tobacco and kerosene) in his house.

511 177 (e) Other household property

Table 4:13 shows the inventories of household property acquired directly or indirectly from the cash sector of the economy, including

[TEXT CONTINUED ON PAGE 63]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

511 the slightly wider range of property evident in Inonda. Sivepe has slightly higher monetary assets than Inonda ($18.96 and $18.52 per household) and a slightly higher percentage of cash in hand (26.9 per cent compared with 21 per cent).

438 178 The substitution of imported items for equipment and property traditionally produced within the village has eased many subsistence tasks such as clearing bush and gardening. Traditional cooking utensils, which took time to make and were easily broken, have been replaced by metal pots and dishes. Guns (and torches) have brought more reward for less effort in hunting, and fishing has become easier with goggles and elastic-propelled spears. Mosquito nets and bedding have made sleep more comfortable. Storebought goods and introduced plants have made possible a more varied diet, particularly during the dry season. The improvements have been on a small scale and have required the diversion of effort into non-traditional channels to obtain the necessary cash. With the exception of the trade store owner in Inonda, few people use cash to make large productive investments (discounting the substitution of steel for stone tools) in village-based activities.

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Table 10:1

Sivepa: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total	%	Amount received from researchers*	Total	%	Amount disposed to researchers*
A. Subsistence produce	(lbs)		(lbs)	(lbs)		(lbs)
Taro	3,390	29	1	4,151	29	388
Sweet potato	1,136	9	-	1,942	13	543
Yam	870	8	-	1,423	10	193
Xanthosoma	350	3	-	104	1	8
'Soup'	169	1	4	228	2	43
Sugar-cane	155	1	-	161	1	30
Corn	100	1	-	211	1	90
Banana	1,096	9	-	827	6	111
Coconut	274	2	2	281	2	66
Pandanus fruit	156	1	-	140	1	5
Sago	536	5	-	744	5	19
Areca/pepper/lime	107	1	1	100	1	4
Breadfruit	948	8	-	1,497	10	80
Other cultivated produce	306	3	-	586	4	361
Pig (domestic and wild)	1,245	11	-	1,372	9	8
Cuscus	138	1	-	181	1	-
Other product of hunting or foraging	138	1	-	100	1	7
Other (firewood, etc.)	297	3	-	330	2	-
Total	11,451	97	15	14,458	99	1,956
B. Labour services	(hours)			(hours)		
Cash sector	128	12		143	13	
Subsistence sector	1,030	88		955	87	
Total	1,158	100		1,098	100	
C. Storebought goods	($)			($)		
Rice	15.08	8	1.30	5.42	22	0.12
Tinned fish	12.63	7	0.85	5.10	21	0.10
Tinned meat	2.95	2	-	0.06	-	0.02
Bread	1.19	1	-	0.10	-	-
Other foodstuffs	3.64	2	0.02	0.74	3	0.02
Alcoholic drinks	1.39	1	-	-	-	-
Trade tobacco	31.66	17	14.67	5.02	20	0.10
Cigarettes	1.49	1	-	0.06	-	-
Clothing	46.20	25	-	2.74	11	-
Radio/watch	30.00	16	-	-	-	-
Other personal goods	9.36	5	0.35	0.54	2	-
Household goods	6.12	3	3.38	2.34	8	-
Cartridges	9.40	5	0.60	2.00	8	-
Batteries, torches, bulbs	2.68	1	2.40	-	-	-
Other tools and equipment	4.99	3	-	0.75	3	-
Total	181.82	97	23.57	24.87	98	0.36

* Included in total.

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Table 10:2

Sivepe: major items of monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total	$	% (value)	Total	$	% (value)
A. Subsistence produce	(lbs)			(lbs)		
Sweet potato	-	-	-	390	6.50	26
Taro	-	-	-	108	1.80	7
Yam	-	-	-	35	2.25	8
Areca/pepper/lime	17	3.70	32	15	3.00	12
Tobacco	-	-	-	2	0.70	3
Pig (domestic or wild)	66	5.65	49	70	8.15	33
Wild game (cuscus etc.)	14	1.50	13	13	2.30	8
Fish (smoked)	5	0.50	4	-	-	-
Eggs	0.3	0.20	2	-	-	-
Total	102.3	11.55	100	633	24.70	97
B. Labour services	(hours)			(hours)		
Cash sector	12	1.50	100	10	0.60	100
C. Cash crops				(lbs)		
Coffee (parchment)	-	-	-	324	58.30	81
Rubber (coagulum)	-	-	-	290	13.30	19
Total				614	71.60	100
D. Storebought goods						
Rice		17.22	13		-	-
Fish (tinned)		16.59	13		-	-
Meat (tinned)		8.25	6		-	-
Biscuits (sweet)		6.02	5		-	-
Bread		5.35	4		-	-
Sugar		3.30	3		-	-
Other foodstuffs		4.12	3		-	-
Alcoholic drinks		4.45	3		-	-
Tobacco - trade		4.54	3		-	-
Cigarettes		2.25	2		-	-
Clothing		10.10	8		0.40	100
Toiletries		3.14	2		-	-
Bedding		2.50	2		-	-
Other personal goods		3.60	3		-	-
Cooking utensils		8.20	6		-	-
Other household goods		6.18	5		-	-
Torches, batteries, bulbs		10.98	8		-	-
Cartridges		10.40	8		-	-
Other tools and equipment		3.70	3		-	-
Total		130.89	100		0.40	100

431 Clothing and tobacco, together with two specific gifts of a radio and a wrist watch, formed the bulk of goods received in this manner.

In the case of food a larger proportion is acquired from other subsistence villagers since some, particularly rice, circulates in a cooked form in the manner of taro and other garden produce, while tinned foods are frequently featured in more formal prestations.

Finally, the circulation of cartridges is directly connected with the rendering of hunting services and the provision of wild game.

432 (b) Monetary sector

438 (i) Subsistence produce. A small volume of subsistence produce is exchanged for cash but no such changes occur between kin apart from some pig which may be 'marketed' in the village and here accounts for 38 per cent by value of all transactions. Two categories can be identified according to the type of goods and circumstances of exchange. Sweet potatoes, taro and yams are sold by women to external agencies - the hospital administration at Saiho and the Anglican mission at Sasembata. These sales are largely unpremeditated and sporadic. The other goods, particularly areca, pepper, lime, pig, wild game and smoked fish are all scarce in some part of the sub-district and are normally transacted by the men, at Saiho market or with hawkers travelling through the village. Thus pig and other game always find a ready market because they do not constitute regular elements of the diet, while lime and fish are not available locally but are carried into the area by hawkers from the mouth of the Mambare and other coastal areas. Areca is plentiful around Sivepe and occasionally men carry bunches to Saiho to sell to people living at lower altitudes, along the Kumusi and towards Popondetta, where it is less common.

437 (ii) Labour services. Only two instances occurred of labour services being rendered in return for a cash payment, both in connection with cash crops. One involved assistance in marketing rubber and the second travelling to Avala to receive payment for coffee previously delivered.

[434] (iii) Cash crops. The cash crops, coffee and rubber, account for three-quarters of income derived from the sale of village products but only 26 per cent of the sample's total income (see Table 10:3). The marketing of both is the direct concern of the producer and there is little evidence of movement of the harvested product between members of the sample, either as payment for labour services rendered or due to one individual acting as middle-man between the producer and buyer.[1]

[1] But see p.203.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

438 439 (iv) Storebought goods. Storebought goods account for 81 per cent of monetary acquisitions. Most originate from the external sector (trade stores) although alcoholic drinks together with a small quantity of food comprise purchases from other subsistence villagers at 'parties'. Only one instance of a disposal was recorded - a woman making a skirt at a mothers' union sewing class and selling it to another for the price of the materials.

Forty-six per cent of all purchases comprises foodstuffs and a further 9 per cent stimulants. Some of these can be considered luxuries in that they are largely superfluous to requirements. However, many dry season purchases, of rice in particular, are made specifically to supplement supplies from the subsistence sector.

The remaining 45 per cent of purchases consists of household and personal goods and equipment. Most of these are more basic to the economy: either their greater efficiency or durability has led to the elimination of traditional counterparts (as in the case of cooking utensils, axes and clothing), or they represent important technical innovations (as in the use of torches and guns for hunting).

434 (c) Cash

According to cash transactions effected during the survey, incomes amount to 40c per man-week or $21.02 per man-year, but 8.4 per cent of this amount originated from the researchers. If money from this source and bank transfers are excluded, a credit balance of $20.76 or a total income of $247.98 is recorded (see Table 10:3). Thus in a 'normal' year an adult's income would amount to $18.19 with a credit balance at the end of 74c, that is, he might save 4.1 per cent of his earnings. On account of the researcher's presence 16.9 per cent of earnings was saved in 1964. The majority enters, almost immediately, into circulation through either the gift exchange or the monetary system.

Table 10:3

Sivepe: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total	273.68	239.22
Including:		
Savings bank transfers	-	12.00
Transactions with researchers	25.70	-

434 Excluding the researchers' contribution to total income only 39 per cent is derived from the sale of cash crops and subsistence produce, the bulk entering instead through the gift exchange system, [431] largely in the form of remittances. By contrast, excluding bank deposits, 63 per cent of disposals takes place in the monetary system, principally as purchases of storebought goods, only a minority being distributed as gifts. In effect, therefore, the gift exchange system serves as the principal mechanism for the acquisition of cash, but only a minor part entering in this way is so distributed, income being used rather to purchase goods unavailable in the subsistence sector of the economy.

Seasonal variations in exchange patterns

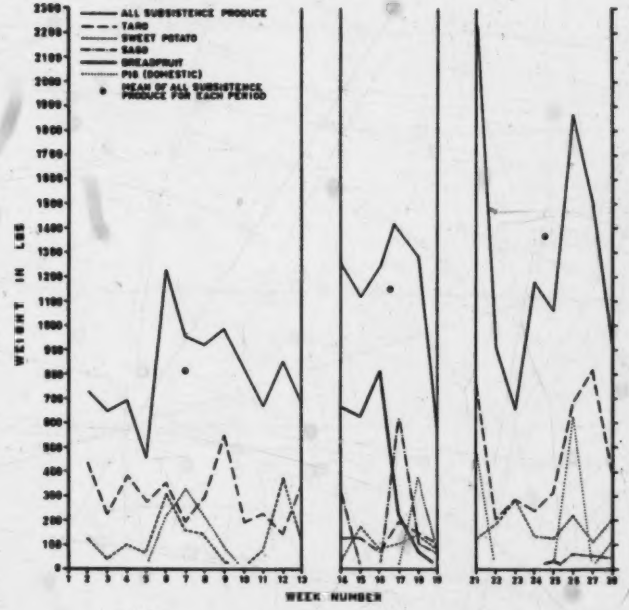
438 (i) Subsistence produce (see Table 10:4 and Fig.10:2). Although no net movements of subsistence produce in or out of the sample are identifiable, other than those directed to the researchers, transactions do reflect the temporal pattern of availability of particular goods. Three broad categories are identifiable - continuous, seasonal and periodic. Of the main cultivated plants only the circulation of sweet potato is maintained at a constant level throughout the year, as it is more tolerant of dry conditions than the staple, taro. However, in terms of diet, its role is not important and in only two weeks did it constitute the major item of exchange.

During periods I and III taro predominates in transactions comprising 37 per cent and 32 per cent respectively of the total volume, but with the annual fall in production in the dry season it declines to 11 per cent, and breadfruit and sago replace it as the main exchange items with 35 per cent and 17 per cent respectively. [262] The production and distribution of these latter crops is almost entirely restricted to the dry season when they constitute the major part of the diet. The peak in breadfruit exchanges precedes that of sago, this being a reflection of both food preference and labour productivity. Only after the supply of the former has been largely exhausted is the labour intensive work of sago extraction resorted to.

Among the Orokaiva, as elsewhere in New Guinea, meat, in particular pig, provides the classic example of goods only periodically available. Although most pigs are exchanged ritually prior to consumption, the fact that a specific quantity of meat may change hands several times, commonly by a process of subdivision and partial redistribution, precludes any meaningful estimation of the level of consumption. It is nevertheless worth noting that on twelve weeks no transactions were effected and on only six did the total volume exceed 100 lbs. On two of the latter six weeks pig was the major exchange item, on a third the volume was only marginally exceeded by that of taro, while on all three weeks it accounted for more than one-third of all transactions.

SIVEPE FIGURE 10-2 438

WEEKLY TRANSACTIONS OF SELECTED SUBSISTENCE PRODUCE



Note: Values below 25 lbs are not shown. Data were collected on only 4 days in week 2 but they have been adjusted to the equivalent of a full week through multiplying by the factor 7/4.

No entirely satisfactory explanation can be given for the increase in mean volume of transactions over the three survey periods. It does bear some relation, however, to the incidence of feasting. This is largely restricted to the wet season when there is an abundance of taro, yam and other garden foods. By the start of

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Table 10:4

Sivepe: mean weekly transactions of main subsistence produce during each recording period
(lbs)

Item		Period I	Period II	Period III
Taro	Acquisition	135.9	63.7	179.3
	Disposal	158.4	63.9	255.3
Sweet potato	A	41.4	41.6	50.9
	D	85.7	59.8	122.8
Pig (domestic)	A	31.8	42.2	77.6
	D	41.7	48.5	73.4
Breadfruit	A	0.5	156.7	3.8
	D	1.6	241.8	3.4
Yam	A	31.8	4.8	58.9
	D	54.0	17.3	91.2
Banana	A	35.6	46.8	50.5
	D	28.0	29.6	40.5
Sago	A	-	82.6	7.5
	D	-	107.5	12.6
Coconut	A	2.2	9.6	23.9
	D	4.8	7.4	22.7
Xanthosoma	A	8.4	25.8	12.3
	D	1.2	6.9	5.9
All subsistence produce (incl. those not shown)	A	342.2	496.2	621.7
	D	462.2	642.7	736.1

period I most feasting had been completed, while, apart from a 'party' to celebrate the return of a son on leave and a small feast following a church wedding, none occurred in the village during period II. Instead exchanges at this time were largely informal, the substantial increase being related to the scarcity of staple foods where a more equitable distribution of available supplies was effected. The orientation of effort on a group basis towards sago extraction, and its subsequent distribution, is evidence of this. Most ceremonial exchanges took place in period III after the taro gardens had returned to full production. Once the supply of food is abundant efforts are made to settle all obligations incurred during the preceding months, and the goods exchanged on such occasions considerably inflate the volume of transactions. A major food exchange or feast fell on each of the three weeks registering the greatest volume of transactions - 21, 26 and 27.

During week 21 one member of the sample conducted a formal exchange with his wife's brother to renew relations damaged earlier in an argument. The event, together with the preceding pig exchange

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

438 with another party and the peripheral food distributions, accounted for half the total volume of transactions effected by the sample during the week and, specifically, all the pig and 48 per cent of the taro. A mourning feast within the sample and food exchange between Sivepe and another village in weeks 26 and 27 had a similar impact on the level of transactions.

(ii) Labour services (Tables 10:5 and 10:6). Labour services are largely specific to certain activities not in themselves a regular feature of the agricultural routine, and transactions assume a distinctly seasonal pattern with the mean weekly volume in period II being approximately twice that of the other periods. This increase is entirely a function of sago-making, 56 per cent of all period II transactions being associated with it. The bulk of these transactions were in fact restricted to week 17 when services rendered amounted to 16 per cent of activity time.

Table 10:5

461 Sivepe: mean weekly transactions of labour services during each recording period (hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	11.4	1.3	-
	Disposal	12.3	1.9	-
Subsistence sector	A	26.6	77.1	32.6
	D	24.9	66.1	33.6
Total	A	37.9	78.4	32.6
	D	37.2	68.1	33.6

Within the subsistence sector labour services in harvesting yams, carrying food and pigs, and butchering the latter also follow a seasonal pattern.[1] Yams are harvested during the wet season for consumption during the dry, while the carrying of food and pigs is associated with the ceremonial exchanges and feasting which are a feature of period III. The decreasing significance of construction through the survey was related to the formulation of plans to transfer the village to a new site rather than to seasonal considerations.

[1] However, as noted on p.192, the circulation of pigmeat follows a periodic pattern on account of the killing of marauding pigs and the purchase of 'marketed' meat. Little assistance is required on such occasions.

454 worthwhile way in which they can invest their money or, three, a general inability of the people to handle their money effectively. An analysis of the pattern of expenditure on commodities (which account for 55 per cent of total expenditure) throws some light on the problem since, in this area, the people themselves initiate the act rather than any other institution.

511 Food and stimulants account for 62 per cent of the expenditure on commodities (see Table 10:12). In a predominately subsistence economy such purchases are generally considered to be of a luxury nature and superfluous to basic requirements. This view cannot be substantiated on the basis of the Sivepe evidence. Sixty-three per cent of rice purchases, the single most important item, are made during July, August and September - the latter part of the dry season - when there is a serious shortage of cultivated foods. The consumption of tinned meat and fish compensate, to some extent, for the inadequate protein content in the subsistence diet. Similarly, purchases of subsistence produce are restricted to the locally scarce resources of fish and meat, together with lime which is eaten with areca. Other foodstuffs include biscuits, bread, sugar and salt and only certain of these can be treated as purely luxury purchases. The other important commodities purchased are clothing and household goods (principally cooking utensils). Both are now essential elements in the material culture, having displaced their traditional counterparts.

438 In comparing the purchasing patterns of cash and non-cash croppers (and therefore of high and low income households) a clearer pattern 439 of priorities emerges. Among the latter clothing is the most im- 511 portant commodity purchased, followed by rice, meat and fish, and household goods. Together these account for 72 per cent of all purchases. The range of purchases of cash croppers is more widely distributed, the above commodities accounting for only 50 per cent of the total. Thirteen per cent of their expenditure is on goods used in hunting - cartridges, torches, batteries and bulbs - and it is in this activity particularly that their larger incomes are of direct significance in effecting a technological advance and increasing productivity. Their more substantial purchases of rice can be viewed in a similar light - reducing their need to make sago, so enabling them to continue their cash cropping activities through the dry season.

In general purchasing patterns can be readily understood in terms of the requirements of the village economy. Expenditure is largely restricted to goods which have displaced their traditional counterparts or which compensate for seasonal food shortages and there is little evidence of extravagance.

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Table 10:12

Sivese: household expenditure on commodities over 46.5 weeks

Household		Subsist-ence produce	Rice	Meat/fish (tinned)	Other food-stuffs	Stimulants	Cloth-ing	Other personal goods	House-hold goods	Torches batteries, bulbs	Cartridges	Other tools and equipment	Total
1*	$	2.34	3.80	6.73	8.87	4.26	4.44	4.16	4.72	3.20	0.80	1.64	44.96
	%	5	8	15	20	9	10	9	10	7	2	4	99
2*	$	6.60	14.40	5.17	5.40	0.10	3.00	1.40	0.28	0.20	2.10	0.70	39.35
	%	17	37	13	14	-	8	4	1	1	5	2	102
3*	$	1.00	4.00	3.40	1.76	0.64	3.85	0.44	1.64	1.70	0.40	0.50	19.33
	%	5	21	18	9	3	20	2	8	9	2	3	100
4**	$	-	-	-	-	-	-	-	-	-	-	-	-
	%	-	-	-	-	-	-	-	-	-	-	-	-
5*	$	2.20	3.80	4.54	5.03	0.70	1.34	0.20	1.58	4.46	2.05	1.44	27.34
	%	8	14	17	18	3	5	1	6	16	7	5	100
6	$	0.20	0.40	0.20	-	-	-	0.20	-	-	0.10	1.00	2.10
	%	10	19	10	-	-	-	10	-	-	5	48	102
7***	$	0.20	-	0.20	-	-	-	-	-	-	-	-	0.40
	%	50	-	50	-	-	-	-	-	-	-	-	100
8	$	1.40	0.20	0.60	-	0.84	3.60	-	0.14	0.10	-	-	6.88
	%	20	3	9	-	12	52	-	2	1	-	-	99
9*	$	0.70	6.46	7.18	5.99	6.85	3.25	1.15	5.26	0.50	0.50	0.25	38.09
	%	2	17	19	16	18	9	3	14	1	1	1	101
10	$	-	1.00	1.40	0.20	-	-	-	3.20	-	-	-	5.80
	%	-	17	24	3	-	-	-	55	-	-	-	99
11	$	-	2.14	1.94	2.03	0.78	3.70	0.50	0.24	-	0.90	-	12.23
	%	-	17	16	17	6	30	4	2	-	7	-	99
12#	$	0.40	0.40	0.48	0.40	-	0.70	0.40	-	-	-	-	2.78
	%	14	14	17	14	-	25	14	-	-	-	-	98
13*	$	1.00	6.50	2.94	2.80	0.40	2.40	0.30	-	1.00	1.30	-	18.64
	%	5	35	16	15	2	13	2	-	5	7	-	100
14	$	0.40	1.50	4.28	2.30	0.40	1.70	0.50	4.05	0.40	-	-	15.53
	%	3	10	28	15	3	11	3	26	3	-	-	102
15*	$	1.10	1.90	2.10	2.14	1.54	1.50	3.10	1.24	2.50	7.10	-	24.22
	%	5	8	9	9	6	6	13	5	10	29	-	100
Total	$	17.54	46.50	41.16	36.92	16.51	29.48	12.35	22.35	14.06	15.25	5.53	257.65
	%	7	18	16	15	6	11	5	9	5	6	2	100
													(£112.93)
Percentage: Cash croppers		7	19	15	15	7	9	5	7	6	7	2	99
Non-cash croppers		6	13	20	11	4	22	4	17	1	2	2	102 (£44.72)

* Cash cropping households. ** Surveyed for 6.5 weeks only. *** Surveyed for 27.5 weeks only. # Surveyed for 11.5 weeks only.

178 there are those indigenes who have moved temporarily or permanently
166 away from the village economy - to take up blocks of land as ex-servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly
[434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home
[465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their home village, or new links are forged, as between mission employees
[434] and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather
[438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

Table 10:13

Sivuna: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisition						Disposal					
	Total	1	2	3	4	5	Total	1	2	3	4	5
	(lbs)						(lbs)					
Subsistence produce	11,553	96	1	2	-	1	15,091	73	-	4	2	21
deviant items:												
Xanthosoma	350	94	-	6	-	-	104	92	-	1	-	7
Sweet potato	1,136	95	4	-	-	1	2,332	55	-	-	-	45
	(hrs)						(hrs)					
Labour services	1,170	99	1	-	-	-	1,108	99	-	1	-	-
	($)						($)					
Cash crops	-	-	-	-	-	-	71.60	-	-	-	-	100
Storebought goods	314.16	19	1	8	26	46	25.43	99	-	-	-	1
deviant items:												
Rice	32.30	16	1	6	1	76	5.42	97	-	-	-	3
Tinned fish	29.22	29	1	6	-	64	5.10	98	-	-	-	2
Tinned meat	11.20	-	4	15	3	78	0.06	67	-	-	-	33
Clothing	56.30	-	-	6	74	19	3.14	100	-	-	-	-
Bedding	9.20	-	16	-	57	27	-	-	-	-	-	-
Cartridges	19.80	39	-	1	-	61	2.00	100	-	-	-	-
Sacks	3.50	14	-	86	-	-	1.50	100	-	-	-	-
Watch/radio	30.00	-	-	33	67	-	-	-	-	-	-	-
Cash	273.72	13	-	7	34	46	239.20	20	-	-	-	80

1 = subsistence villagers; 2 = settlers; 3 = wage earners within District; 4 = wage earners outside District;
5 = organisations.

437 absences from the village[1] and the services are normally reciprocated with goods originating in the external sector.

The exchange of cash crops (for cash) is wholly bilateral in form - between producer and buyer - with no other movement identifiable. This does not apply to storebought goods. While 46 per cent are obtained directly from trade stores and other organisations, significant quantities are also received from wage earners, as well as from other subsistence villagers. The bulk of goods obtained from organisations are foodstuffs and stimulants (59 per cent) and these may be consumed casually or redistributed, primarily in ceremonial exchanges. Wage earners outside the District are the second most important source of storebought goods; in this case the goods are largely non-perishable and of a comparatively high value as, for example, a radio, clothing, bedding and linen. Three parcels of gifts received were valued at $44, $35 and $19 each. Not only are such items suited for postal delivery but these are the only people that can really afford to make such gifts. Wage earners within the District are unable to make large gifts, both because of their lower incomes and the frequency of inter-visiting. Instead small quantities of food or used clothing are commonly given by them, although on one occasion a villager received a second-hand watch and on another, a number of sacks. The latter are highly valued for the storage of coffee.

438 439 The 19 per cent of storebought goods obtained from villagers fall into two categories - food which, as stated above, is mostly ceremonially exchanged,[2] and cartridges. Both the owners (or the operators) of shotguns received frequent requests to hunt on behalf of others, in return for the supply of cartridges. However, one of them also expected an additional payment of 10c per cartridge from some people for the service.[3]

437 With the exception of a few small gifts of prepared food made to the researchers, the acquired storebought goods are only given to other subsistence villagers. Essentially, therefore, the pattern of movement of these, as of subsistence produce, reflects the different resource bases of the various socio-economic categories where the diffusion of kin facilitates reciprocally based exchange or, in the absence of kin, monetary exchange. The opportunities for this latter type are enhanced by the introduction of non-kinsmen into the subsistence villagers' orbit, particularly as mission

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[1] See p.77.

[2] In one minor feast an individual received thirteen tins of fish and large pots of rice and tea, apart from the customary range of subsistence produce.

[3] See p.119.

437 employees. The need for these people to evolve some sort of exchange relationships with neighbouring villagers is explained by their low salaries and restricted subsistence resources. Their presence also facilitates long distance hawking, in that people from the coast will come to stay with relatives employed inland, bringing with them their fish and lime.

436 The main use of cash is as the medium of exchange with the external sector and most transactions are, therefore, with organisations, with 80 per cent of disposals to them. These cover not only purchases of goods but tax payments and mission contributions, which together account for 15 per cent of all disposals to organisations. Only a part of this expenditure is met by the sale of cash crops and subsistence produce and by village-based wage labour. If gifts from the researchers are disregarded, remittances from wage earners outside the District rank with earnings produced directly by the sample's endeavours (37 and 40 per cent respectively of total acquisitions), while a further 8 per cent of total income is derived [433] from wage earners within the District. In effect the external sector of the village economy is dependent to a very substantial extent on the earnings of those kinsmen in wage labour.

The geographical dimensions of exchange

439 As revealed in the preceding section, the entry of a number of kinsmen into the external sector of the economy and their scattering over a wide area considerably complicate the spatial dimensions of exchange by introducing something of a random element based upon the distribution of expatriate settlements and institutions rather than of indigenous population. Thus, three-quarters of all clothing originates from Port Moresby since that is where the highest income earners (among kin) are employed; the 34 per cent of cash income obtained from wage earners outside the District came from three separate points in the Central, Gulf and Western Highlands Districts where relatives are stationed; while the bulk of foodstuffs are purchased in a store at Awala - one hour's walk from the village - rather than another at Kongehambo - only 20 minutes away - because the former is better stocked.

437 With novel means of communication available, particularly the postal service, the circulation of non-perishable goods which are 438 not a product of the village economy is largely independent of factors of distance. Further, such circulation operates primarily outside the network of subsistence villagers, is restricted principally to the monetary system and is of a more strictly 'economic' nature. By contrast the exchange of subsistence produce and labour services takes place predominately at the village level, and here a more significant geographical (and sociological) dimension to exchanges can be identified.

437 Table 10:16 outlines the geographical pattern of transactions of
438 subsistence produce and labour services. In so far as produce is concerned, 96 per cent of all acquisitions and 89 per cent of disposals[1] are restricted to subsistence villages. Furthermore, almost all of these exchanges are effected within a radius of two miles of Sivepe, with the majority operating within the village itself. The small net outflow of produce away from the villages (of sales and gifts to relatives in paid employment) is more than compensated for by the dominant inflow of cash and storebought goods described above. Within this broad pattern specific variations are identifiable, from produce which is exchanged almost exclusively within Sivepe to that which figures largely in links with distant villages and points outside the village network. Within the former category are prepared dishes such as 'soup', foods eaten primarily as refreshments, such as sugar-cane, and those which dominate the diet during the dry season - sago and breadfruit. The latter category comprises the ecologically based transactions of areca, lime and fish. There is only a very limited demand for all three, however, and the volume and frequency of such exchanges is of little significance within the total pattern.

Taro and pig figure largely in inter-village exchanges, their movement being explicable primarily in cultural terms. One is the main source of carbohydrates, the other of protein and both serve as essential measures of wealth in food resources, therefore dominating ceremonial exchanges. In addition, custom dictates that a [231] person cannot kill and consume his own pig but must effect an ex- [262] change with another. Since it is unlikely that two households in the same village wish to kill pigs at the same time, the transactions are largely made between individuals in different villages.

The movements of yams and Xanthosoma are somewhat anomalous: almost all acquisitions of the former originate within Sivepe but many of the disposals are directed to other villages, while with Xanthosoma the pattern is reversed, most acquisitions coming from other villages. Neither crop is particularly abundant and the extent to which each is planted is largely a matter of individual preference, but both are favoured because of their storage qualities. Their variable movement must therefore be viewed as an expression of individual rather than broad cultural or ecological considerations.

437 Disregarding, for the moment, absences involving assistance to settlers at Sangara, the exchange of labour services is restricted, effectively, to the inter-village level and, almost entirely, to Sivepe itself. In the case of subsistence activities it is not

[1] If transactions with researchers are disregarded this figure becomes 86 per cent.

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Table 10:16

Sivopo: the geographical distribution of subsistence produce and labour service transactions
(by place as a percentage of total distribution)

	Total (quantity)	Sivopo	Other villages within a radius of			Soamboata mission	Saiho market	Other expatriate centres	Total (%)
			<1 mile	1-2 miles	>2 miles				
	lbs								
I Acquisition									
Subsistence produce:	11,933	68	11	12	5	-	-	3	99
Selected items -									
Taro	3,390	60	10	14	9	-	-	6	99
Xanthosoma	350	20	25	50	2	2	-	4	101
Sweet potato	1,136	86	8	-	-	-	-	5	99
Yam	870	94	4	-	2	-	-	-	100
'Soup'	169	91	3	3	3	-	-	-	100
Sago	536	77	12	7	4	-	-	-	100
Breadfruit	940	98	1	-	1	-	-	-	100
Sugar cane	135	85	1	6	-	3	-	5	100
Areca, lime, etc.	124	57	10	2	17	-	10	6	102
Fish	5	-	-	-	80	-	20	-	100
Pig (domestic and wild)	1,311	44	14	38	1	-	-	-	99
	hrs								
Labour services:	1,170	90	3	1	5	-	-	1	100
Cash	140	100	-	-	-	-	-	-	100
Subsistence	1,030	88	3	2	6	-	-	1	100
	lbs								
II Disposal									
Subsistence produce:	15,091	66	9	6	8	5	4	3	101
Selected items -									
Taro	4,259	51	8	12	13	9	3	5	101
Xanthosoma	103	99	-	-	-	-	-	1	100
Sweet potato	2,332	72	2	2	2	5	17	-	100
Yam	1,459	74	5	1	13	-	1	5	99
'Soup'	226	86	4	-	7	-	-	3	100
Sago	746	81	5	2	5	2	1	4	100
Breadfruit	1,497	81	5	1	8	3	-	2	100
Sugar cane	181	84	6	1	4	4	-	1	100
Areca, lime, etc.	114	44	10	4	25	-	9	8	100
Pig (domestic and wild)	1,443	38	43	13	2	2	-	-	100
	hrs								
Labour services:	1,108								
Cash	133	96	-	4	-	-	-	-	100
Subsistence	955	73	12	7	5	1	-	-	100

Chapter 11

Exchange patterns: Inonda

437 [431]

The nature and volume of transactions

The Inonda people carry out exchanges of subsistence produce, labour services and items derived from trade stores not only with each other but also with people from other villages, with settlers and with kinsmen or friends who are wage earners. Reciprocation for a gift is not necessarily on the same occasion, or in the same quantity or of the same item. The exchanges effected by the 21 adult members of the village were recorded simultaneously with the data on activity patterns, a total of 2,782 man-days being covered.

(a) Non-monetary sector

438 [262]

(i) Subsistence produce. Table 11:1 shows the total amounts of each item given and received by the villagers in all non-monetary transactions. The dominant position of taro in the horticultural system and the diet is emphasised by its role in exchanges. The economic importance of the sparsely-populated grasslands and hill areas is also clear from the fact that wild pig is the next most important item after taro; other hunted produce and fish are also significant. Some allowance should be made for the fact that pig carcasses, weighing up to 200 lbs are often given whole rather than after the removal of the gut and bones.[1] In addition, portions of meat frequently pass through a 'chain' of exchanges and are thus counted several times. This process occurs more rarely for vegetable produce. These qualifications, however, are not sufficient to diminish the significance of pigmeat in the exchange pattern. Sweet potato is the second most important crop (see Table 4:9) and the third most important item in subsistence transactions. Banana, sugar-cane, yam and pumpkin are the main subsidiary crops and are also significant in the exchange pattern. The comparatively small

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[1] This practice is determined partly by the belief that in certain circumstances, such as when using a new gun, spear or new hunting dog, a hunter should not keep the prey to himself.

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Table 11:1

Inonda: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total (lbs)	%	Amount* received from researchers (lbs)	Total (lbs)	%	Amount* given to researchers (lbs)
A. Subsistence produce						
Taro	5,494	39	15	6,307	46	271
Xanthosoma	353	3	-	141	1	2
Sweet potato	1,419	10	2	1,235	9	69
Yam	406	3	2	457	3	13
Pitpit	160	1	-	221	2	4
Banana	1,098	8	6	528	4	18
Pumpkin	521	4	-	410	3	18
'Soup'	261	2	-	266	2	9
Sago	263	2	4	135	1	1
Coconut	324	2	5	416	3	25
Sugar-cane	546	4	19	662	5	73
Other cultivated produce	833	6	4	631	5	31
Fish	165	1	-	172	1	9
Wallaby	313	2	-	241	2	2
Wild pig	1,461	11	-	1,836	13	2
Other produce of hunting, fishing and foraging	156	1	-	151	1	3
Other	160	1	-	48	-	-
Total	13,933	100	57	13,857	101	550
B. Services	Hours	%		Hours	%	
Labour, cash sector	52.8	8		53.1	12	
Labour, subsistence sector	578.4	92		386.8	88	
Total	631.2	100		439.9	100	
C. Store-bought goods	$	%	$	$	%	
Rice	35.34	20	0.86	12.94	31	
Tinned fish	13.12	8	0.40	6.16	15	
Tinned meat	11.02	6	1.58	1.30	3	
Bread	4.46	3	0.56	3.08	8	
Tea	1.84	1	0.26	1.14	3	
Sugar	4.90	3	0.30	1.62	4	
Flour	1.20	1	-	0.90	2	
Soft drinks	1.34	1	0.38	0.90	2	
Sweet biscuits	4.12	2	0.20	1.94	5	
Prepared refreshments	2.36	1	1.60	0.54	1	
Alcoholic drinks	8.38	5	2.44	-	-	
Trade tobacco	19.66	11	14.90	2.26	6	
Cigarettes	1.46	1	0.14	0.14	-	
Other foodstuffs	2.44	1	1.06	0.36	1	
Clothing	39.60	23	25.20**	6.70	16	
Other personal goods	9.42	5	8.18	0.24	1	
Household goods	8.62	5	5.94	0.04	-	
Tools and equipment	4.90	3	1.04	0.70	2	
Total	174.18	100	65.04	40.96	100	

* Included in total.
** Includes parcel of clothing valued at $21.54 from research worker in Australia.

438 proportion formed by pitpit is due to the fact that it was only in season during the first twelve weeks of the survey (see Table 11:4). Yams, Xanthosoma and sago are similarly seasonal and in certain weeks are more prominent than shown here. Of the other cultivated products, areca nuts are important although they amount to only 93 lbs acquired and 39 lbs disposed over the survey. One lb consists of approximately 24 areca nuts, so that about 86 nuts were acquired and 36 nuts disposed of by the village as a whole each week. In other words, there is a regular traffic in areca. Inonda people are dependent on outsiders for the nut because the palm does not grow well on their land.

It is noteworthy that the total acquisitions and disposals of subsistence items are very close to balancing - the excess of the former amounts to only 76 lbs out of a total of 14,000 lbs. However, the reservation should be made that the balance is achieved by equating all items on the basis of weight, and this does not exactly reflect Orokaiva methods of calculation. It is, nevertheless, probable that the outflow of the most favoured foods - taro (800 lbs) and pigmeat (375 lbs) - helps to balance the inflow of services and storebought goods and that this is an expression of the Orokaiva ideal of reciprocity in relationships.

437 [431] (ii) Labour services. The exchange of labour services is to some extent a matter of individual inclination. Where an obligation exists, it has not necessarily been incurred through an equivalent service, nor is reciprocation in this way essential - it may, instead, be through a gift of garden produce and obligations and reciprocations may be separated by a time-lag of a year. For this reason and others discussed below, the pattern of services over a period varies from individual to individual and acquisitions and disposals are not often in balance. In Table 11:1 the excess of acquisitions over disposals of labour services in the subsistence sector reflects large amounts of labour given by people from other villages, mostly young men staying for a few days or weeks with kin in Inonda. They contributed 42 per cent of subsistence services, in such tasks as house-building, sago-making and gardening. If it is assumed that people who are temporarily absent from Inonda follow the same work patterns as people temporarily resident, this apparent excess would be considerably reduced.

439 431 [123] (iii) Storebought goods. Table 11:1 also shows the values of goods derived from trade stores that are circulated through the gift exchange system. Thirty-seven per cent of the total value of acquisitions shown was in gifts from research workers. One-third of this was in the form of a parcel of clothing from a research worker in Australia and the rest was contributed during the survey. The most significant contributions were of trade tobacco, mosquito nets (shown as 'personal goods'), clothing and a suitcase given to the leading man for his journey to Port Moresby.

Discounting the effects of the researchers' presence, there is a considerable excess of acquisitions over disposals. This largely reflects the continued participation in the gift exchange system of villagers' kin who are in close contact with the monetary sector as wage earners or settlers (see Table 11:9).[1] The contributions of such people are particularly marked in the case of rice and clothing, which are, in terms of value, the most important items of storebought produce entering the gift exchange system. As well as rice, tinned fish, bread, trade tobacco and several lesser food items all enter into the exchange system occasionally. They are invariably given in small quantities, sometimes in the daily food transfers and sometimes as contributions to a feast or party.

(b) Monetary sector

Table 11:2 shows the total values of items acquired and disposed in exchanges involving an immediate return of cash. Purchases of subsistence produce are insignificant compared with the amounts acquired through gift exchange and they are usually made to fulfil an urgent need, such as feast contributions. Areca nuts, however, are bought occasionally. They are mostly obtained in the Popondetta market, whereas fish and game are purchased from hawkers. Some garden produce was sold to road construction workers early in the survey, but the main sales of subsistence produce were made in Popondetta market during periods II and III and comprised mostly fish and smoked meat from hunted animals. The Inonda people acquire almost four times as much cash from sales as they spend on purchases of subsistence produce.

In total, subsistence produce accounts for only a small proportion of monetary exchanges, which are concerned mainly with storebought goods. The total value of purchases of such goods is almost $200. As with gift exchange, clothing and rice are the most important items, with certain other foodstuffs - tinned fish, bread, sugar, biscuits and flour - also accounting for significant proportions. Apart from food and clothing, the main items purchased comprise household goods and tools and equipment for work.

Apart from goods sold through the medium of the trade store,[1] copra was the only non-traditional commodity sold during the 26 weeks of the recording periods. Some coffee was, however, sold in the weeks intervening between the three periods.[2]

The excess of acquisitions over disposals of storebought foods is evidence of the comparatively slight degree to which they enter into the gift exchange system, with the exception of rice and tinned

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[1] For details of the operation of the trade store, see p.255.

[2] See p.257.

A,[See Category 592, p.247--Analyst] B,[See Category 444, p.255--Analyst]

meat and fish. Between 4 and 6 lbs of rice are given out each week on average, mostly as plates of cooked rice.

Table 11:2

Inonda: major items of monetary exchange over the whole survey period

	Acquisition			Disposal		
	lbs	$	%	lbs	$	%
A. Subsistence produce						
Xanthosoma	50.0	0.70	9	-	-	-
Banana	-	-	-	25.0	2.10	7
Coconut	2.0	0.10	1	15.0	0.75	2
Areca	9.8	2.06	27	1.0	0.20	1
Tobacco	-	-	-	0.5	0.20	1
Fish	8.5	2.10	27	39.0	6.80	23
Crocodile	-	-	-	12.0	4.50	15
Bird	-	-	-	12.0	2.10	7
Bandicoot	1.0	0.10	1	3.5	0.90	3
Wallaby	5.0	0.30	4	35.0	3.50	12
Pig	21.0	2.40	31	87.5	8.30	28
Eggs	-	-	-	0.3	0.30	1
Total	97.3	7.76	100	230.8	29.65	100

B. Storebought goods	$	%	$	%
Rice	21.40	11		
Tinned fish	16.86	8		
Tinned meat	5.98	3		
Bread	13.04	7		
Sugar	12.94	7		
Flour	12.60	6		
Soft drinks	4.72	2		
Sweet biscuits	11.44	6		
Hard biscuits	2.20	1		
Prepared refreshments	8.10	4		
Other foodstuffs and medicines	5.72	3		
Cigarettes, tobacco, alcoholic drinks	4.00	2		
Clothing	37.44	19		
Other	12.16	6		
Household goods	13.40	7		
Tools and equipment	16.70	8		
Copra			2.32	100
Total	198.70	100	2.32	100

437 (c) Cash

Table 11:3 shows that the Inonda people disposed of slightly more cash than they received during the survey period, but when transactions with the researchers are excluded the figures are in almost exact balance. No attempt was made at the beginning of the survey to record cash-in-hand and savings, so no detailed balance sheet can be presented.

Table 11:3

Inonda: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total of cash	337.38	340.70
Including:		
Savings bank transfers	18.00	10.00
Transactions with researchers	6.60	9.94

432 Seasonal variations in the exchange patterns

In presenting the seasonal variations in exchange patterns (and in all subsequent analyses), transactions in the two systems of gift and monetary exchange have been amalgamated. The effect of this amalgamation is greater for non-traditional than for most subsistence products. Thus, the Inonda people purchased rice worth $21.40 during the survey. Of the $12.94 worth of rice which individuals disposed of in gifts, $8.94 went to other Inonda people (Table 11:24), and this forms only 16 per cent of total acquisitions of rice. For non-traditional items as a group, gifts received by the villagers from each other amount to only 7 per cent of the total value of acquisitions.

438 (i) Subsistence produce and storebought goods. Tables 11:4 and 11:5 show the seasonal variations in the exchange patterns by presenting the mean weekly amounts of various items acquired and disposed for each of the recording periods. The composition of the pattern may vary considerably from week to week during any season (see Figs.11:1 and 11:2). Thus, pigmeat formed 43 per cent (263 lbs) of acquisitions of subsistence items in week 4, but only 3 per cent (16 lbs) in week 6. Taro formed 32 per cent (191 lbs) and 65 per cent (349 lbs) respectively in the same weeks. However, the differences between the seasons as a whole have greater significance than intra-seasonal variations.

A,[i.e., Table 11:17; see Category 462, p. 285--Analyst]

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Table 11:4

Inonda: mean weekly transactions of main subsistence produce during each recording period
(lbs)

Item		Period I	Period II	Period III
Taro	Acquisition	324.7	168.4	186.1
	Disposal	394.8	122.5	240.1
Xanthosoma	A	4.2	14.8	34 6
	D	0.5	2.8	15.0
Sweet potato	A	22.0	109.2	69.4
	D	14.0	58.3	92.8
Yams	A	1.3	61.5	2.6
	D	1.5	72.0	0.4
Pitpit	A	15.3	-	0.9
	D	22.3	-	0.8
Banana	A	50.6	63.6	27.2
	D	16.8	33.2	18.6
Sago	A	0.8	18.9	17.9
	D	0.1	12.6	7.4
Coconut	A	7.8	18.5	17.8
	D	12.1	18.8	23.9
Sugar-cane	A	34.6	5.3	23.1
	D	39.2	6.0	32.6
Fish	A	11.9	3.5	5.9
	D	12.2	2.2	11.0
Pig (wild)	A	108.4	36.2	26.8
	D	150.8	40.2	31.3
All subsistence produce (incl. those not shown)	A	673.2	605.3	507.6
	D	730.1	470.0	558.3

The seasonal nature of taro production is underlined by the fact that in period II, the dry season, the mean amount disposed of per week is less than one-third of the amount in period I, when taro is in full production and much is circulated through feasts. During period III, taro planted during the dry season is just coming into production and the amount in circulation rises. In period II, there is a mean weekly excess of acquisitions over disposals of taro. Since disposals include those to other Inonda people (and, therefore, also recorded as acquisitions) the excess suggests an inflow from other villages. Several factors other than the comparatively low level of transactions support the idea that the main staple is in short supply during the dry season. Subsidiary foodstuffs, some of which are not necessarily seasonal in character, increase in significance at this time. Taro forms little over one-quarter of both

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Table 11:5

Inonda: mean weekly transactions of storebought goods during each recording period
($)

Item		Period I	Period II	Period III
Rice	Acquisition	2.56	2.39	1.89
	Disposal	0.62	0.39	0.61
Tinned fish/meat	A	2.00	1.48	2.09
	D	0.39	0.14	0.40
Bread	A	0.67	0.79	0.71
	D	0.16	0.12	0.08
Sugar	A	0.79	0.92	0.53
	D	0.17	-	0.04
Sweet biscuits	A	0.74	0.41	0.50
	D	0.17	-	0.05
Prepared 'snacks'	A	0.33	0.70	0.38
	D	-	0.03	0.03
Flour	A	0.04	2.24	-
	D	-	0.15	-
All storebought goods (incl. those not shown)	A	15.40	14.70	16.35
	D	1.67	1.82	2.99

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acquisitions and disposals of subsistence products, whereas sweet potato accounts for 18 per cent and yam 10 per cent of acquisitions, and the same crops account for 12 per cent and 15 per cent respectively of disposals. Of the crops that may be stored, yams are clearly a dry season crop in terms of exchange as well as of harvesting (see Table 7:3), but Xanthosoma and sago are significant later in the year also. The level of transactions of banana also increases in the dry season.

Although taro is still harvested during the dry season, there is a clear need to supplement it with other foodstuffs. This need is met in several ways: firstly, by production of sago, yams and manioc and by collection of green leaves and shoots. (These last substitute for pitpit, which is harvested only in the early part of the year.) Secondly, Table 11:4 suggests that Inonda receives net 'imports' of crops such as taro and sweet potato at this time from other villages. Thirdly, flour and rice are purchased, in addition to considerable quantities received as gifts from outside the village, and the net acquisitions by the villagers amount to an average of 20 lbs of each commodity per week. All the households purchased either rice or flour and all acquired some through gifts. The fall in acquisitions of taro per week from period I to period II is 70 lbs,

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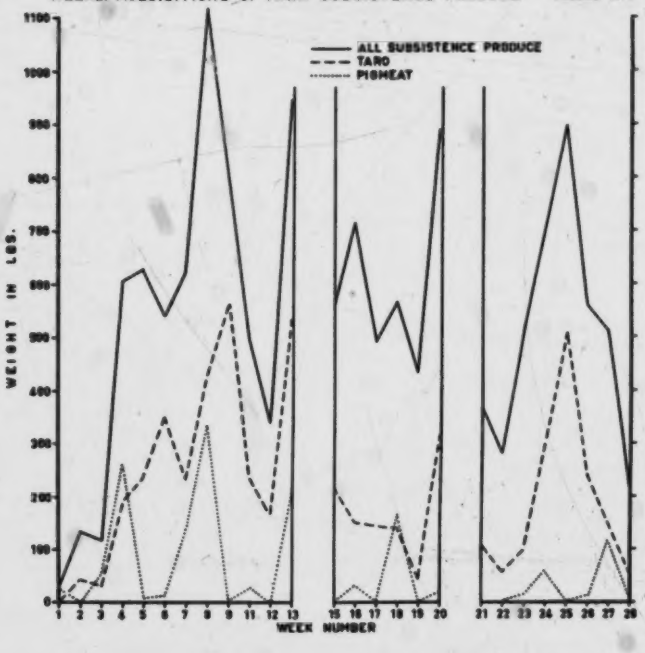
INONDA
WEEKLY ACQUISITIONS OF MAIN SUBSISTENCE PRODUCE FIGURE 11:1



representing some 28,000 calories.[1] This is slightly less than the calorific content of 20 lbs of flour. Flour is purchased only during the dry season, but purchases of rice are common throughout the year, particularly during the feasting season and, in the week when the major feast of the year was held, the Inonda people acquired a net 56 lbs of rice (19 lbs by purchase).

[1] See Platt 1945.

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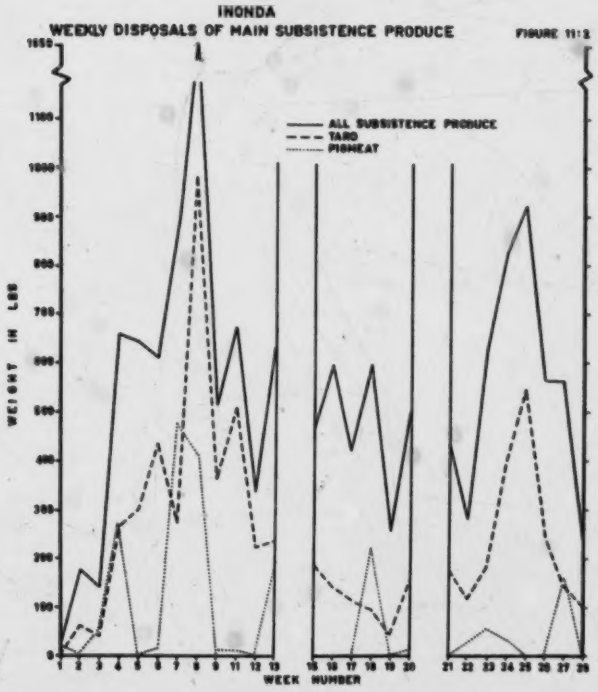

The inflow of garden produce from other places during the dry season and of certain items, such as Xanthosoma and banana, throughout the year is balanced partly by an outflow of yams during the dry season but rather more by an outflow of a wider range of foods at other times, in particular taro, coconut, sugar-cane and pigmeat. In a sense, this is a form of specialisation and division of labour which is incorporated into the system of reciprocation. For example, there is a net inflow of banana from ex-servicemen settlers on the Girua blocks and a net outflow of pigmeat to settlers. This is essentially an amplification, on an annual scale, of the casual

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al- [433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] - surpluses (and their counterpart, shortages) are frequently the [574] result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end [431] of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively [436] long-distance hawkers from both the coastal and mountain areas. At [178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence 221 sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A, [See Category 512, pp. 166-167--Analyst]

437 operations in the cash sector are conducted, in part at least, according to traditional attitudes.

437 476 Table 11:16 gives details of labour assistance received from and given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

438 462 562 The breakdown of the totals for the whole survey according to sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1] and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

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Table 11:17

Inoada: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce:			(lbs)			(lbs)
Taro	40	60	5,494	6	94	6,307
Sweet potato	31	69	1,419	17	83	1,235
Yam	36	64	406	19	81	457
Banana	42	58	1,098	34	66	553
Pumpkin	21	79	521	16	84	410
'Soup'	70	30	261	3	97	266
Coconut	48	52	326	56	44	431
Sugar-cane	49	51	546	33	67	662
Areca	42	58	93	36	64	39
Other garden produce	44	56	1,566	26	74	1,089
Fish	49	51	174	71	29	211
Wallaby	81	19	318	85	15	276
Pig	77	23	1,482	85	15	1,923
Other produce of hunting, fishing and foraging	55	45	157	46	54	179
Other weight items	-	100	160	48	52	48
Labour services:			(hrs)			(hrs)
Cash	98	2	52.8	67	33	53.1
Subsistence	88	12	578.4	78	22	386.8
Storebought goods:			($)			($)
Rice	58	42	56.74	33	67	12.94
Tinned fish	67	33	29.98	54	46	6.16
Tinned meat	66	34	17.00	54	46	1.30
Bread	82	18	17.50	89	11	3.08
Sugar	75	25	17.84	100	-	1.62
Salt	48	52	1.24	-	100	0.12
Trade tobacco	71	29	21.24	45	55	2.26
Other foodstuffs and cigarettes	82	18	69.34	67	33	5.80
Clothing	60	40	77.84	55	45	6.70
Cooking utensils	21	79	9.70	-	-	-
Other storebought goods	88	12	42.60	14	86	0.78
Cash	88	12	337.36	90	10	340.70

	Men	Women	Total
Number of days surveyed	1,443	1,339	2,782
Percentage of total	52	48	100

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they [439] acquire less than men in this way) and husbands also give their wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the [556] routine daily exchanges of cooked food. This is true of flour also in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

438 exclusive. Representatives of the external agencies were, for this purpose, grouped in a single category as 'organisations' (for example, the local government council, the army, the markets and trade stores). The term 'subsistence villager' includes those growing cash crops.

Table 11:18 shows how transactions of each category of goods and services are distributed among partners according to their occupational category. Items which deviate significantly (in most cases between 10 and 15 per cent) from the mean for their respective categories are shown separately.

As might be expected, the dominant position of villagers in exchanges of subsistence items is clear. For several items they account for 100 per cent of the total, although in the case of Xanthosoma only 34 per cent was acquired from this source. One household received several large gifts of the tuber from a New Guinea plantation labourer it had befriended, while some was also purchased at Popondetta market. Other noteworthy deviations include fish and game where significant quantities were sold at the market or given to settlers. In fact 34 per cent of the subsistence produce disposed to settlers comprised pigmeat, due, specifically, to a villager hunting on behalf of a relative on two occasions.

439 In contrast to the subsistence items, only a minority of non-traditional acquisitions is from villagers. Disposals of such items are smaller than acquisitions and only in a few cases - rice, tinned fish and clothing - is the total value above $6. Most disposals, particularly of food, are to other villagers. Most (over two-thirds) of the non-traditional items are acquired from trade stores (organisations). However, other people make significant contributions of some items: wage earners provide over half the alcoholic drinks, half the salt and considerable proportions of the rice, tinned fish and meat, and cigarettes, while the settlers are also a minor source of foodstuffs. The villagers clearly derive considerable benefit from the continued operation of the gift exchange system with these people, but most particularly with the wage earners who participate more fully in the monetary economy than settlers.

437 As regards labour services, almost all acquisitions are from subsistence villagers. Disposals in the subsistence sector naturally go largely to other villages although some help is given to settlers. In the cash sector, one-fifth of the labour services goes to settlers but none is received from them.

437 Most cash transactions are effected with organisations (52 per
434 cent of acquisitions and 77 per cent of disposals) but exchanges with other villagers are of secondary importance. Settlers and wage earners also play an important role as sources of cash. The largest item in transactions between villagers consisted of $36 paid out by the entrepreneur to the six men who worked for him on

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Table 11:18

Inonda: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisition						Disposal					
	Total	1	2	3	4	5	Total	1	2	3	4	5
	(lbs)						(lbs)					
Subsistence produce deviant items:	14,032	85	9	5	-	1	14,088	78	7	8	6	
Xanthosoma	403	34	2	52	-	12	141	81	-	17	2	
Fish	174	94	2	4	-	-	211	69	2	6	23	
	(hrs)						(hrs)					
Labour services	631.2	98	-	2	-	-	439.9	93	6	1	-	
Cash sector	52.8	97	-	3	-	-	53.1	79	21	-	-	
Subsistence sector	578.4	98	-	2	-	-	386.8	95	4	1	-	
	($)						($)					
Storebought goods deviant items:	373.04	9	3	17	-	71	43.48	80	4	3	12	
Rice	56.74	15	7	39	-	39	12.94	82	6	1	11	
Tinned fish	29.98	17	5	20	-	58	6.16	86	3	1	10	
Tinned meat	17.00	17	5	34	-	44	1.30	100	-	-	-	
Bread	17.50	12	1	9	-	78	3.08	81	13	-	6	
Sugar	17.84	2	7	17	-	74	1.62	86	-	-	14	
Tobacco	21.24	4	5	6	-	85	2.26	87	4	9	-	
Flour	13.80	6	-	3	-	91	0.90	100	-	-	-	
Clothing	77.04	5	-	14	-	81	6.70	100	-	-	-	
Cartridges	7.22	10	8	3	-	79	0.50	100	-	-	-	
Cash	337.36	21	11	12	4	52	340.70	19	-	4	77	

1 = subsistence villagers; 2 = settlers; 3 = wage earners within Northern District; 4 = wage earners outside Northern District; 5 = organisations.

B: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

H51
H38
H29

437 the construction contract. Most of the rest was exchanged as gifts
434 or loans. Nine dollars was received from settlers as wages, the rest as gifts or loans. Most of the money received from wage earners was in the form of gifts from kin or friends, but a small amount was acquired early in the survey by the sale of coconuts and bananas to road-workers. Gambling winnings accounted for half the money received from settlers, and wages a further 25 per cent. A total of $12 was received by two people in remittances from a kinsman working in Madang. Acquisitions of cash from organisations are mostly in the form of payments by the Administration for goods and contracts, wages from the road-construction company and receipts from marketing, while disposals consist mostly of payments to trade stores and council tax.

432 In summary, it may be said that the bulk of exchanges of subsistence produce are with other villagers, except for sales of certain items at market and generally small exchanges with settlers retaining firm links with their village-based kin. Transactions of cash and storebought items are largely confined to organisations, other villagers and wage earners in the Popondetta sub-district. Labour services are almost wholly with other villagers, apart from a little assistance given to settlers.

438 The geographical dimensions of exchange (see Maps 2 and 5)[A]

437 (i) Subsistence produce. Tables 11:19-24 show the locations of partners (whether people or organisations) with whom Inonda people engaged in transactions during the survey. Most are villages, but they also include plantations, settlement blocks, mission stations and isolated trade stores. Tables 11:19 and 11:20 present the information for transactions of subsistence produce and reveal that almost two-thirds of acquisitions come from within the village itself and a further 25 per cent from people living within a radius of two miles. Seventy-one per cent of the disposals are to Inonda villagers and a further 18 per cent to people within two miles' radius. People or organisations (particularly the market) at a distance of five miles or more account for 11 per cent of both acquisitions and disposals. The distribution reflects primarily the closeness of contacts with kin, most of whom (apart from affines) live within two miles of the village at Ajoro (which moved its site during the survey and changed its name to Hahemo), Ijika, Mosou and the Girua settlement block. The relationship with the road construction workers' camp at Evundo followed the marriage of an Inonda girl to a New Guinean labourer. Links with places at a greater distance are also almost exclusively based on kinship. Several households have consanguineal ties with Sewa and Urio villages; two households in particular maintain close contacts with relatives in Ururu, Popondetta and Hohorita and another household with the wife's kin at Sangara plantation and in Kendata village

[TEXT CONTINUED ON PAGE 270]

A. [See Category 102, pp. 8, 52--Analyst]

Table 11:19

Inconda: places of origin of main subsistence products acquired by the sample

Item	Taro	Sweet potato	Yam	Banana	Pumpkin	Sago	Coconut	Sugar-cane	Corn	Areca	Fish	Wallaby	Pig	Total subsistence produce*	
Village	Percentage**													lbs	%
Inconda	61	58	91	51	49	47	67	70	79	30	61	53	82	8,676	62
Baheno and Ajoro	3	1	3	2	-	4	4	2	3	14	8	-	3	472	3
Ijika	9	11	1	8	7	6	4	11	13	3	7	-	2	1,068	8
Girua block	9	10	1	17	19	5	8	10	2	4	2	8	9	1,281	9
Moseu	5	-	-	5	-	17	3	-	-	3	9	19	1	505	4
Sewa	4	-	-	2	-	-	2	5	-	15	8	2	-	422	3
Girua plantation	-	-	-	-	-	-	-	-	-	-	-	-	-	157***	1
Jonita	2	-	-	3	14	-	-	-	-	-	1	-	-	256	2
Urio	-	20	-	5	1	21	1	-	-	1	3	2	3	517	4
All other places#	3	-	4	7	10	1	11	3	3	31	2	17	-	679	5
	98	100	100	100	100	101	100	101	100	101	101	101	100	14,033	101
Total in lbs	5,494	1,419	406	1,098	521	263	324	546	145	93	174	318	1,482		

* Including items not shown.
** Columns may not add to 100 due to rounding.
*** Xanthosoma only.
# Twenty-two in all.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0223 Orokaiva 0223

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Table 11:20

Income: destinations of main subsistence products disposed by the sample

Item	Taro	Sweet potato	Yam	Banana	Pumpkin	Sago	Coconut	Sugar-cane	Corn	Areca	Fish	Wallaby	Pig	Total subsistence produce*	
Village	Percentage**													lbs	%
Inonda	70	72	85	75	74	86	56	69	81	74	58	67	67	9,960	71
Hahoue and Ajoro	4	5	2	1	6	7	3	2	1	3	1	20	-	470	3
Ijika	5	4	1	4	-	1	6	3	-	3	8	-	8	623	4
Sangara	1	2	-	3	-	-	-	-	-	-	1	-	-	110	1
Girua block	7	4	3	7	4	-	11	5	4	10	3	-	17	990	7
Hosou	2	2	1	2	4	-	1	5	-	2	5	-	1	274	2
Sous	1	1	1	-	-	3	2	1	-	1	-	-	-	131	1
Evundo	2	-	-	3	-	-	5	3	-	-	1	-	-	234	2
Urio	1	-	-	-	-	-	3	-	-	-	1	-	-	108	1
Popondetta	1	4	5	-	-	2	3	2	11	2	20	13	4	406	3
Ururo	3	1	1	1	10	1	1	1	1	-	1	-	-	386	3
All other places***	1	5	1	-	3	-	3	9	1	6	2	-	3	398	3
	100	100	100	98	101	100	98	100	99	101	101	100	100	14,090	101
Total in lbs	6,307	1,235	457	553	410	135	430	662	145	39	211	276	1,923		

* Including items not shown. ** Columns do not necessarily add to 100 due to rounding. *** Eighteen in all.

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437 on the western slopes of Mt Lamington some 13 miles away (but 40 miles by road). As will be seen by comparing Tables 11:20 and 11:22, links between Inonda villagers and kin who are in wage employment in Ururu, Popondetta or on plantations are characterised by an outflow of garden produce from Inonda and an inflow of store-bought foods, clothing and cash. Many of the disposals to people from places more than two miles distant take place in Inonda - a string bag of vegetables weighing 35 lbs or more is rarely carried for any great distance and this in itself ensures a comparatively low volume of transactions of vegetable produce over distances greater than three or four miles. One of the main items of long-distance exchange is areca, which Inonda people receive mostly from villages such as Sewa and Kendata higher on the slopes of Mt Lamington.

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In general, about half the subsistence transactions with people in the above places is of taro, with sweet potato, banana, sugar-cane and pigmeat also prominent. The bulk of acquisitions from kin in Urio, however, was of sweet potato, which had been planted as a 'catch crop' on land cleared for cocoa trees. The Xanthosoma bought at the market formed two-thirds of the acquisitions from Popondetta and fish and game formed almost half of the disposals, these going almost entirely to the market. Half of the acquisitions from Ururu (the mission station at Popondetta) were bananas - presumably such a crop is most easily grown by mission staff with little time (and land) at their disposal.

437 (ii) Labour services. The Inonda people receive over half of all labour services from their co-residents while most of the others came from only three other places: Sewa, where the entrepreneur's mother's sister's sons live; Ijika, where there is a branch of one of the component lineages of the Andiriha clan; and Kendata, the home village of the wife of one Inonda man (see Table 11:21). In the case of Sewa and Kendata, young people came to stay with and assist their Inonda kin for periods of a few weeks; the Sewa men assisted particularly in sago-making and construction, but also in some tasks related to the cash sector. Disposals of labour services are mainly to Inonda people but a considerable amount of assistance in cash sector tasks goes to kin in Ijika and to settlers on the Girua block. It should be noted that, although no labour assistance is received from settlers, Inonda people receive more commodities, both traditional and non-traditional, from the settlers than they give to them.

439 366 (iii) Storebought goods. The distribution of transacting partners for non-traditional goods differs greatly from that for garden and forest produce (see Table 11:22 and 11:23). The principal factor involved is the presence of trade stores as the main source of such goods. Thus, Popondetta, with several stores and within reasonably easy travelling distance, provides 40 per cent of Inonda people's total acquisitions of non-traditional goods,

service. In Sivepe sustained reciprocal exchanges operate primarily among members of an extended family and secondarily within a single generation (as between cross-cousins or ego and his wife's brother). In the first a significant degree of economic inter-dependence is apparent, while in the second exchanges serve to support alliances which may be both social and economic in character. Because of the continuing nature of the relationship no final settlement occurs and reciprocation is, therefore, frequently delayed. Elsewhere major exchanges are more typically characterised by immediate reciprocation, particularly where the obligation is a specific one relating to particular goods or service. In consequence only the casual exchanges, which themselves comprise but a small proportion of the total quantity of goods and services transacted, can be judged a drain on resources in the sense that they might serve to inhibit individual aggrandisement.[1] Furthermore, in most instances, the proportion of total production exchanged is so slight that the system cannot be considered to function as a major limitation on productivity. Even where the proportion is high, as with pigs or sago, there is normally immediate reciprocation to an equivalent, and often negotiated, value. In effect, therefore, it is less the goods than the relationship which determines the type of exchange adopted and according to the available evidence, this applies regardless of the extent of individual involvement in the monetary economy.

With the exception of labour services the mean volume of transactions per man-week in all categories in Inonda is about twice the level of that in Sivepe (see Table 12:1). However, the area over which most of them operate is much the same; at Inonda, 87 per cent of the acquisitions and 89 per cent of the disposals of subsistence produce are effected within a radius of two miles of the village, compared with 91 per cent and 81 per cent respectively at Sivepe. This difference of scale is largely explicable in terms of the greater socio-economic diversity of the Inonda neighbourhood and, related to this, the fact that virtually all the village's cash income is locally derived whereas at Sivepe a major source is remittances from kin, with whom there is little direct contact.

At Inonda a more restricted range of subsistence produce is available; with the exception of sago, there is a scarcity of staple foods suitable for consumption during the dry season. At the same time there is an abundance of fish and game within the group territory. Within a short distance of the village live ex-servicemen settlers (some of whom are kinsmen) and plantation labourers, while access to the wage earners in Popondetta is facilitated through the market there. The limited number of Inonda people in the permanent

[1] See pp.181-2.

[TEXT CONTINUED ON PAGE 281]

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

Table 2

245 242 423 162 464 Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

434 In addition to their earnings from cocoa production, Yega villagers had four sources of income.

[439] [444] i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

434 438 ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

each Saturday morning doubled in the 18 months prior to this study but still only about 15 families per week sent in produce for sale. Larger numbers of Yega attended on Saturdays following the fortnightly administration pay day than on the alternate Saturdays. Cash income obtained by Yega also more than doubled in the same period (from a weekly average of $1.35 per participating family in January 1963 to $2.80 per family in July 1964).

iii. Gifts from relatives in paid employment. In 1964 this was the main source of cash income of most Yega villagers. Almost invariably the young men in paid employment sent monetary gifts home to their relatives in the village. A sample group of 18 such workers earning an average $610 per annum in cash or kind remitted an average of $90 per head per annum to their relatives in the villages.

iv. Gambling. As gambling is illegal, people were reluctant to divulge details. Nevertheless, for some men gambling constituted an important source of income. The stakes in domestic games of 'Lucky' were usually betel nuts, but in games with outsiders always cash. Yega gamblers aimed particularly to relieve the workers on nearby plantations of their wages. On one observed occasion a Yega man won $86 in one night in such a game.

Sources of additional income for two sample groups are summarized in Table 3 below:

Table 3

Additional sources of cash income of Yega villagers during 1962

Classification	Personal effort	Gifts	Other*
Holders of cocoa blocks (sample of 25)	8	17	2
Non-holders of cocoa blocks (sample of 14)	8	9	Nil

* This includes savings and gambling (one informant in each). Some persons received income from two sources.

The holders of blocks received more gifts than non-holders of blocks. The main reason for this is that most blockholders had sons or brothers of working age. Many of these worked in paid employment and, by making gifts to blockholders, were ensuring reciprocity of gifts in the future. Table 3 shows only gifts received by people living at home. Monetary gifts were rarely given by the village people but when the 'outside workers' returned for holidays in the village they were fed, boarded and feasted free.

474 grown. These were mainly used as food by the co-operative workers,
241 but in times of local food shortage they were sold to other vil-
[438] lagers. All workers, Yega, Ahora and Beuru, lived in garden
[484] houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

[797] Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative
[797] efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as
[ ] the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

[657] Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

[484] All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½d. to 4d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

474 443 [657] [454] The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 167 [368] [871] [777] [434] The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 443 438 Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 [871] [787] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

1198 [366] 439 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 402 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 402 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected 126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

472 informal 'company' was formed to operate the enterprise. There
245 were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the
[471] others contributed $10 each. This money is used as working capital
[454] and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

245 Wet cocoa beans were bought from villagers from moneys in the
438 Cocoa Account at 3 cents per pound and fermented and dried. They
439 were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps
[628] more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No
[454] later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

472 All four entrepreneurs aspire to owning a motor vehicle. A's
493 early attempts were declined by officials,[1] and his attempt to
494 establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

472 The difficulty of acquiring a skill such as driving is often
493 overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several
[484] years in an unskilled job without getting the opportunity to learn
[464] to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-
472 hand vehicle for some time, but the likelihood of establishing a
493 successful carrying business is doubtful, for overheads are high,
494 business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

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[426] [1] Official approval was then necessary for indigenous people to go
[656] into debt.

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [368] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P.15-B]

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966. 235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [293] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [594] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

438 There is a great shortage of both pigs and fowls for these ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

241 We may distinguish, among local plant resources which yield 311 economic products, those plants which are native to the district and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

241 devote less time to the cultivation of the more laborious (but more
311 favoured) Colocasia taro.

During the post-eruption period there have been, as we shall
[433] see below, many pressures on the Orokaiva to reallocate their working time, by raising the standard of village building construction, by taking on outside labour to raise taxes and buy luxuries, by increasing the acreage in cash crops. In many cultures dependent on swidden agriculture these pressures have led to more slipshod methods of cultivation, or smaller plantings or shorter fallowing periods. Among the Orokaiva, the only effect so far has been, in all probability, a decline in the surpluses grown for feasts. This is a change to be discussed later and related to religious changes. In Sivepe there would clearly be a danger, if cash-cropping was expanded to the extent some administration officers would like to see, that fallowing periods in subsistence gardens would need to be shortened. There is no evidence that subsistence gardening, so far, has been affected by cash cropping, as both the acreage and the time devoted to cash crops is too small. (For details of time allocation to activities in both villages, see Table 8.)

245 The average Sivepe family, according to Rimoldi, has 62 cultivated trees of local origin from which crops are gathered in season. No corresponding figure is available for Inonda, but it would be about 30. The list of most important trees varies a little between the two districts because of differences of climate and soil.

Sivepe	Inonda
Coconut	Sago
Breadfruit (oga and eumba)	Coconut
Betelnut (areca)	Betelnut
Sago	Hauga nut (tauga)
Pandanus	Breadfruit
Tauga nut (cycas media)	Pandanus
Puga nut (terminalia okaria)	(Ajimo)
Bark cloth tree (ajimo)	
Mango	

An important difference between the resources of the two villages is that coconuts at Inonda will yield copra; hence, a copra drying house was built and this has been and can be a source
[262] of income. At Sivepe, the flesh is thinner and coconuts are grown for drinking, cooking, feeding dogs and chickens, while the nuts are also eaten regularly and form a useful source of protein. Another
249 difference is that neither betelnut nor tauga and puga do well at all in the Inonda district and quantities are negligible. The lack
276 of betelnuts is felt very strongly, as the Inonda people are as fond of chewing it as other Orokaiva. Hence, it is usually obtained
438 A [See Cat. 116, p. 213--Analyst]

276 from relatives who live in the mountain districts or else obtained
439 by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

[799] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

The three introduced cash crops of significance in the two
241 villages have been rice (pre-eruption), coffee and rubber; in
177 both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these
[243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous villages. I collected the kindreds, up to two degrees removed, of 51 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9 shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; meeting them less than once a year would not be quite right. Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

[124]

[794]

Section 4: Other Contacts with the Waseta "Tribe"

While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matriline, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Isivita villages and with Togahou. The links with Soroputa and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Awala (three miles from Sivepe) also has a special explanation beyond common clanship: Sivepe people were dependent upon Awala clay for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

[438]
[323]

A [See Cat. 116, p. 214--Analyst]

177 829 [203] concepts drawn from the scene of world affairs. While among the Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The political orientation displayed was a mild kind of nationalism, and a sense of closeness to newly independent non-white states. But the information, derived from radio broadcasts and speeches by councillors, introduced an acculturative kind of perspective. Its dissemination is being actively encouraged by the Australian authorities.

465 [464] Use of money: Before the eruption, money played a very minor role in village life. It was earned by men who were away for limited periods working on plantations. Money wages on plantations were, and are, extremely low; wages for agreement labour in 1962 were, for instance, $39 per annum for the first year of which $12 is paid out in monthly installments and the rest at the end of the year. In the second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages are a great deal higher than this; most Sivepe men who were absent on employment worked on urban jobs. At the same time, a regular income was derived from coffee.

464 435 438 Sivepe men were simply not interested in jobs at plantation rates of pay, nor were they interested in "carrying" jobs for the government even though wages in that case were higher. They were also indifferent to selling their garden products on the Saiho and Popondetta markets, as there were frequent gluts, prices were low and carrying goods to market was an unduly arduous task.

436 511 Money was used largely to buy goods in the luxury rather than the subsistence sphere. Money was essential for payment of taxes and for a minimum of clothes, often acquired cheaply at jumble sales. Otherwise, it was used to buy tobacco, food for feasts, kerosene mainly used for feasting occasions, cartridges for hunting, again for feasts. Among the larger purchases made were radios, pressure lamps, bicycles, tools; all these, however, could never be paid for with current income. One had to depend on special windfalls: a gift from a relative in town, a bride price. Money was not only for spending, however; it was also for saving. I shall refer to the organisation of corporate saving later; in addition a number of Sivepe men had savings, of the order of $10-$20, sometimes more, hidden away. This money was kept for special occasions, but in addition, the very fact of possessing it was regarded as important. I was once told that Europeans were powerful because they had money; the Orokaiva could get power only if they too possessed savings.

454 556

436 437 [461] If money was definitely highly valued, it was only to a limited extent regarded as a standard of value. If we accept some model such as was suggested by Salisbury (1962), we may say that the Orokaiva have three spheres of exchange: a subsistence, luxury and ritual sphere, while bank notes are used for special, often ritual occasions. In the acquisition of luxury goods of any kind, including money, the Orokaiva tend to weigh the benefits gained by them against their cost in time and unpleasantness and against the benefits that can be gained from other investments. Money is, in general, wanted only if it can

654 After resettlement in Awala and other villages, the government
731 made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 In earlier chapters, I have already drawn attention to the
823 widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family [794] land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 Naturally, in the circumstances, people did not feel any pride
177 or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe [438] was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garombi which still [626] had its pigs. During the bargaining, a Garombi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Garombi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
magical and juridical sense. Often he also leaves behind a wife for
169 whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

169 If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual
[571] universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

435 Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[21]

245 Growing coffee is not considered pleasurable like growing taro.
824 When suggesting to an informant that coffee trees have a sweet smell,
461 I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus
[177]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all.

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor.

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills.

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
trade, though small in volume, was politically important in that it provided a
438 motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only
439 when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

171 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of produc-
511 tion.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

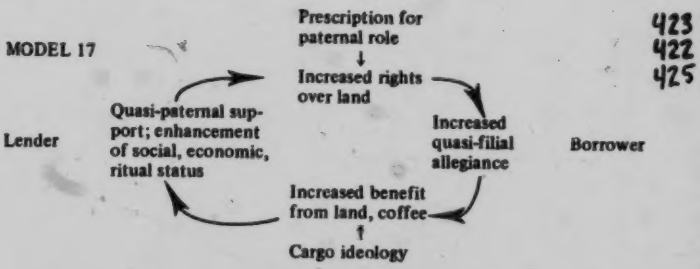
648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

[435] Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places where a smaller labour force was working an equally large [466] area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

436 a standard of value. However, to some extent money seems to have [555] taken over some of the functions of traditional valuables and in some situations one is exchanged for the other. In the past it [301] was recognized that skill and initiative in hunting and trading [237] were necessary to acquire di hambo but today, with safer communi- [321] cations and better hunting equipment, they are more easily obtained. People are willing to buy some of the more valuable items or some [439] cheaper items of European manufacture which can be adapted to serve as a novel decoration.

Although they constituted the greater part of the goods changing [428] hands on traditional ceremonial occasions, di hambo are evidently not now circulating rapidly. A little less than half of these valuables held by members of the sample had been inherited and nearly a quarter had been acquired by the owner by hunting or collecting.

A complete adjustment between the roles of money and of non-monetary valuables has not yet been made. They circulate in the same exchanges and both are considered essential; it may now be [583] accepted practice that each should be contributed by or distributed amongst different categories of kin on these occasions.[1] But the opinion was widely expressed that as people are increasingly demanding cash as a large part of bride price payments, the intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely interchangeable, we collected details of the prices paid for any items of di hambo which had been purchased by the sample,[2] and by using these in conjunction with the unitary scale of value on which informants could readily place all items, we assessed the possible cash equivalent of non-monetary valuables acquired by the 12 households from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popoddetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by 461 the Administration at 2c and the mission at 1c per lb,[2] and only [433] a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 (f) Conclusions

[464] In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

241 universally small and there is no evidence to suggest that any
[464] village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are
no motor vehicles owned by individuals or groups of subsistence
493 villagers,[2] although a number of villages now possess copra driers
and coffee pulping machines.
407

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage
[461] labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

73] (ii) Consequences of the disasters. The effects of the war and
435 the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 73I, p.16--Analyst]

431 457 Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

574 Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the [178] lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not [439] concern the person or group actually 'giving' the feast. It may [262] involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the [535] location of the party rather than of membership of a particular [533] descent group. Most take place during the afternoon and evening [534] and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food [77] or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

438 In addition to these exchanges with kinsmen, co-residents and [137] neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

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Table 4:6

Rivers: non-traditional household property, November 1964
(Figures represent numbers of items)

Household no.	1	2	3	4	5	6	7	8	9	10	11	12
No. of adults	2	3	2	3	1	2	2	3	2	3	2	2
Tools and equipment:												
Axe	2	2	2	2	1	2	2	2	1	1	2	
Bush knife	3	4	3	4	2	2	2	3	3	2	3	
Grass knife	2	1	1	1	-	1	-	3	2	2	2	
Shovel/spade	2	-	-	1	-	-	-	2	1	-	1	
Hoe	-	-	1	-	-	-	-	-	-	-	-	
Fork	-	-	1	-	-	-	-	-	-	-	-	
Pocket knife	2	4	1	2	2	2	2	3	1	2	1	
Saw	-	-	1	-	-	1	-	-	-	-	1	
File	-	1	1	1	-	1	-	1	-	-	-	
Hammer	-	-	-	-	-	-	2	3	1	-	1	
Adze	-	1	-	-	-	-	-	-	-	-	-	
Axle	-	-	-	-	1	-	-	-	-	-	-	
Spanner	-	-	-	-	-	1 not	-	-	-	-	-	
Shotgun	-	1	-	-	-	-	-	-	-	-	1	
Sack	2	-	-	3	-	1	-	-	-	2	-	
Household:												
Cutlery	21	13	2	11	2	9	2	24	11	4	4	
Cooking pot	3	3	1	1	-	4	1	4	4	2	3	
Dish/plate	9	20	9	10	-	8	3	12	15	10	13	
Mug/glass	2	9	1	5	-	4	-	5	2	5	4	
Teapot	-	-	-	-	-	-	-	1	1	-	-	
Needle and thread	-	-	-	-	-	Yes	-	-	Yes	Yes	-	
Hurricane lamp	2	1	1	1	-	1	-	-	2	1	1	
Torch	-	-	-	2	-	-	-	-	-	1	-	
Radio	-	1	-	-	-	-	-	-	-	-	-	
Personal:												
Blanket	2	3	-	-	1	4	1	3	3	1	1	
Sheet	2	4	3	-	1	1	-	2	1	-	1	
Pillow	-	1	-	1	-	2	-	1	1	-	-	
Mosquito net	-	-	-	-	-	1	-	-	-	-	-	
Sleeping-mat	1	3	-	2	-	-	-	1	2	2	-	
Towel	3	7	1	1	1	3	-	1	1	1	-	
Groundsheet cape	-	-	-	1	-	-	-	1	-	-	-	
Suitcase/kitbag/pack	4	4	2	-	-	2	1	5	4	1	3	
Laplap	9	2	1	-	-	2	11	3	5	2	1	
Shirt/blouse/dress	5	4	3	4	2	2	1	7	6	2	2	
Trousers/shorts/skirt	9	11	3	3	1	7	-	13	5	5	4	
Underwear	-	2	-	-	-	-	-	1	2	1	1	
Sweater/coat	-	-	-	1	-	-	-	-	1	-	1	
Footwear	-	2	-	2	-	1	-	-	1	-	-	
Belt	-	1	-	-	-	1	-	1	1	1	2	
Handkerchief	-	-	-	-	-	-	-	-	-	2	-	
Hat	-	1	-	-	-	-	-	-	-	-	-	
Hair oil/powder	-	-	-	-	-	1	-	-	2	-	-	
Comb/brush	-	-	-	1	-	-	-	4	-	-	-	
Toothbrush	-	1*	-	-	-	-	-	-	-	-	-	
Mirror	2	2	-	2	-	1	1	2	3	2	1	
Scissors	-	1	-	-	-	-	-	-	-	-	-	
Biro/pencil	-	2	-	-	-	-	-	5	-	-	-	
Purse	-	2	-	-	-	1	-	-	1	-	-	
Lighter	-	-	-	-	-	-	-	1	-	-	-	
Watch	-	-	-	-	-	-	-	1	-	-	-	

* Acquired during the second world war!

[621]
[177]

Notes. 1. There is also some communally-held rubber-tapping equipment (tapping tools, spouts and a bucket) in the village, provided by the owner of the local rubber factory.

2. Considerable use is made of discarded metal containers, e.g. large cans for cooking pots, screw-top tobacco tins for lime, and beaten-out drums for hearths.

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Table 4:13

Inventor non-traditional household property, November 1964

Household no.	14	17	18	19	20	21	22	23	24
No. of adults	4	2	1	1	2	2	2	2	2
Tools and equipment:									
Axe	1	2	1	1	1	2	1	3	2
Bush knife	3	2	1	2	3	4	3	4	2
Grass knife	2	2	2	1	1	1	3	2	2
Spade	4	1	-	1	1	1	-	-	1
Hoe	-	1	-	-	-	-	-	-	-
Pick	-	-	-	-	-	-	-	1	1
Rake	-	-	-	-	-	1	-	-	-
Saw	-	-	-	-	1	1	1	-	1
File	1	-	-	1	-	1	1	1	2
Hammer	2	1	-	1	1	1	2	1	2
Chisel	-	1	-	-	-	-	2	1	3
Measuring tape	-	-	-	-	1	-	-	2	-
Level	-	-	-	-	-	-	-	1	1
T-square	-	-	-	-	-	-	-	-	1
Ladder	1	-	-	-	-	-	-	1	-
Swimming glass	2	3	-	-	1	1	1	-	1
Fishing line	-	-	-	-	1	-	-	1	-
Shotgun	-	-	-	-	-	-	-	1	-
Household:									
Cutlery	13	5	8	2	6	15	7	15	15
Cooking pot/kettle	12	7	4	-	5	4	4	6	5
Dish/plate	21	20	8	-	11	8	6	17	16
Mug/glass	2	3	1	-	3	-	1	7	4
Teapot	-	-	-	-	-	-	-	1	1
Pressure lamp	-	-	-	-	-	1	-	-	1
Hurricane lamp	1	1	1	1	1	1	1	1	-
Torch	1	1	-	-	1	1	1	-	1
Bucket	-	-	1	-	-	1	-	-	-
Water-drum	1	1	-	-	-	1	-	2	-
Iron	-	-	-	-	-	-	-	1	-
Broom	-	-	-	-	-	4	-	-	-
Table	-	2	-	-	1	-	-	-	1
'Stool's	2	4	-	2	4	3	1	3	2
Tea-towel	-	-	-	-	-	-	-	2	-
Personal:									
Blanket	6	1	2	1	1	2	-	3	1
Sheet	-	2	-	-	1	-	-	1	1
Pillow	1	-	-	-	-	2	1	2	2
Mosquito net	3	2	1	2	1	1	1	3	2
Towel	-	4	-	-	-	1	-	1	1
Suitcase/box/pack	3	2	1	-	1	2	1	4	1
Laplap	-	1	-	-	-	-	1	-	2
Shirt/dress/blouse	13	4	1	3	3	13	-	11	4
Shorts/skirt	13	1	3	1	4	10	1	10	7
Underwear	-	-	-	-	-	-	-	10	-
Pullover	-	1	-	-	-	-	-	-	-
Footwear	-	-	-	-	-	2	1	3	-
Handkerchief	1	-	-	-	-	-	-	1	-
Tie	-	-	-	-	-	-	-	2	-
Comb/hairbrush	2	1	-	-	-	-	-	-	-
Scrubbing brush	-	1	-	-	-	-	-	-	-
Mirror	2	1	-	1	-	1	-	1	1
Scissors	-	2	-	-	-	2	-	1	-
Umbrella	-	-	-	-	-	1	-	-	-
Pencil	3	-	-	-	-	-	-	-	-
Watch	-	-	-	-	2	-	-	-	-

* These are old mortar-bomb cases which, inverted, serve as stools.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 10:1

Sivuai: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total	%	Amount received from researchers*	Total	%	Amount disposed to researchers*
A. Subsistence produce	(lbs)		(lbs)	(lbs)		(lbs)
Taro	3,390	29	1	4,151	29	388
Sweet potato	1,136	9	-	1,942	13	543
Yam	870	8	-	1,423	10	193
Xanthosoma 'Soup'	350	3	-	104	1	8
	169	1	4	228	2	43
Sugar-cane	155	1	-	161	1	30
Corn	100	1	-	211	1	90
Banana	1,096	9	-	827	6	111
Coconut	274	2	2	281	2	66
Pandanus fruit	156	1	-	140	1	5
Sago	556	5	-	744	5	19
Areca/pepper/lime	107	1	1	100	1	4
Breadfruit	968	8	-	1,497	10	80
Other cultivated produce	306	3	-	586	4	341
Pig (domestic and wild)	1,345	11	-	1,372	9	8
Cuscus	138	1	-	181	1	-
Other product of hunting or foraging	138	1	-	180	1	7
Other (firewood, etc.)	297	3	-	330	2	-
Total	11,451	97	15	14,458	99	1,956
B. Labour services	(hours)			(hours)		
Cash sector	128	12		143	13	
Subsistence sector	1,030	88		955	87	
Total	1,158	100		1,098	100	
C. Storebought goods	($)			($)		
Rice	15.08	8	1.30	5.42	22	0.12
Tinned fish	12.63	7	0.85	5.10	21	0.10
Tinned meat	2.95	2	-	0.06	-	0.02
Bread	1.19	1	-	0.10	-	-
Other foodstuffs	3.64	2	0.02	0.74	3	0.02
Alcoholic drinks	1.39	1	-	-	-	-
Trade tobacco	31.66	17	14.67	5.02	20	0.10
Cigarettes	1.49	1	-	0.06	-	-
Clothing	46.20	25	-	2.74	11	-
Radio/watch	30.00	16	-	-	-	-
Other personal goods	9.36	5	0.35	0.54	2	-
Household goods	6.12	3	3.38	2.34	8	-
Cartridges	9.40	5	0.60	2.00	8	-
Batteries, torches, bulbs	2.68	1	2.40	-	-	-
Other tools and equipment	4.99	3	-	0.75	3	-
Total	181.82	97	23.57	24.87	98	0.36

* Included in total.

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Table 10:2

Sivepe: major items of monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total	$	% (value)	Total	$	% (value)
A. Subsistence produce	(lbs)			(lbs)		
Sweet potato	-	-	-	390	6.50	26
Taro	-	-	-	108	1.80	7
Yam	-	-	-	35	2.25	8
Areca/pepper/lime	17	3.70	32	15	3.00	12
Tobacco	-	-	-	2	0.70	3
Pig (domestic or wild)	66	5.65	49	70	8.15	33
Wild game (cuscus etc.)	14	1.50	13	13	2.30	8
Fish (smoked)	5	0.50	4	-	-	-
Eggs	0.3	0.20	2	-	-	-
Total	102.3	11.55	100	633	24.70	97
B. Labour services	(hours)			(hours)		
Cash sector	12	1.50	100	10	0.60	100
C. Cash crops				(lbs)		
Coffee (parchment)	-	-	-	324	58.30	81
Rubber (coagulum)	-	-	-	290	13.30	19
Total				614	71.60	100
D. Storebought goods						
Rice		17.22	13		-	-
Fish (tinned)		16.59	13		-	-
Meat (tinned)		8.25	6		-	-
Biscuits (sweet)		6.02	5		-	-
Bread		5.35	4		-	-
Sugar		3.30	3		-	-
Other foodstuffs		4.12	3		-	-
Alcoholic drinks		4.45	3		-	-
Tobacco - trade		4.54	3		-	-
Cigarettes		2.25	2		-	-
Clothing		10.10	8		0.40	100
Toiletries		3.14	2		-	-
Bedding		2.50	2		-	-
Other personal goods		3.60	3		-	-
Cooking utensils		8.20	6		-	-
Other household goods		6.18	5		-	-
Torches, batteries, bulbs		10.98	8		-	-
Cartridges		10.40	8		-	-
Other tools and equipment		3.70	3		-	-
Total		130.89	100		0.40	100

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439 (iv) Storebought goods. Storebought goods account for 81 per cent of monetary acquisitions. Most originate from the external sector (trade stores) although alcoholic drinks together with a small quantity of food comprise purchases from other subsistence villagers at 'parties'. Only one instance of a disposal was recorded - a woman making a skirt at a mothers' union sewing class and selling it to another for the price of the materials.

Forty-six per cent of all purchases comprises foodstuffs and a further 9 per cent stimulants. Some of these can be considered luxuries in that they are largely superfluous to requirements. However, many dry season purchases, of rice in particular, are made specifically to supplement supplies from the subsistence sector.

The remaining 45 per cent of purchases consists of household and personal goods and equipment. Most of these are more basic to the economy: either their greater efficiency or durability has led to the elimination of traditional counterparts (as in the case of cooking utensils, axes and clothing), or they represent important technical innovations (as in the use of torches and guns for hunting).

(c) Cash

434 According to cash transactions effected during the survey, incomes amount to 40c per man-week or $21.02 per man-year, but 8.4 per cent of this amount originated from the researchers. If money from this source and bank transfers are excluded, a credit balance of $20.76 or a total income of $247.98 is recorded (see Table 10:3). Thus in a 'normal' year an adult's income would amount to $18.19 with a credit balance at the end of 74c, that is, he might save 4.1 per cent of his earnings. On account of the researcher's presence 16.9 per cent of earnings was saved in 1964. The majority enters, almost immediately, into circulation through either the gift exchange or the monetary system.

Table 10:3

Sivepe: acquisition and disposal of cash over the whole survey period
($)

	Acquisition	Disposal
Total	273.68	239.22
Including:		
Savings bank transfers	-	12.00
Transactions with researchers	25.70	-

432 derived from the data is in part misleading since sales of coffee were made periodically from June through to September while rubber can be, and is, sold at any time of the year. A feature of both crops is, however, that substantial quantities are harvested, processed and stored prior to entry into the exchange system. Unlike most subsistence crops both are capable of storage while, in the case of coffee, the infrequent opportunities for sale make this a necessity. Over the survey three sales of rubber and five of coffee were recorded.

511 (iv) Storebought goods (Table 10:7 and Fig.10:3). The distinct periodicity apparent in the movement of the major storebought goods is connected with both seasonal factors and the receipt of parcels from kinsmen in wage employment. The consumption of these goods can be variously judged, according to the time of year, as supplementing the subsistence diet or as being surplus to requirements. During period I, with little feasting and an abundance of garden produce (plus a shortage of available cash), only a small quantity of food is purchased and none circulated. The acquisition of rice is at a peak during period II to compensate for the shortage of starches in the subsistence sector; yet even at this time consumption amounts to only about 1 lb of white rice per adult per week. Most is purchased in 1 lb or 2 lb lots from local trade stores, although on one occasion (in week 16) a 56 lb bag was purchased. [262] Most conspicuous consumption and exchange takes place during [439] period III: tinned meat and fish which are frequently consumed with the staple foods exceed rice in the value of exchanges, but acquisitions of them only amount to about 0.5 lb per adult per week.

The climax in the circulation of tobacco and clothing during period II reflects the receipt of two gift parcels by sample members, with goods to an estimated value of $65. In the case of cartridges the increased circulation during the dry season was associated with improved hunting opportunities and, in connection with them, the quasi-entrepreneurial activities of one sample member.[1]

The manner in which storebought goods are circulated is similar to that of subsistence produce in that there is little storage or stock held. Because the utilisation of these goods is related primarily to specific circumstances, such as the availability of cash, receipt of gift parcels and feast requirements, the pattern of exchange over time assumes a highly irregular form which, to a considerable extent, obscures seasonal variations. It should be noted, however, that this form closely parallels that of the circulation of subsistence produce (see Fig.10:2).

A,[See Category 438, p. 193--Analysis]

[1] See p.119.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

454 worthwhile way in which they can invest their money or, three, a general inability of the people to handle their money effectively. An analysis of the pattern of expenditure on commodities (which account for 55 per cent of total expenditure) throws some light on the problem since, in this area, the people themselves initiate the act rather than any other institution.

511 Food and stimulants account for 62 per cent of the expenditure on commodities (see Table 10:12). In a predominately subsistence economy such purchases are generally considered to be of a luxury nature and superfluous to basic requirements. This view cannot be substantiated on the basis of the Sivepe evidence. Sixty-three per cent of rice purchases, the single most important item, are made during July, August and September - the latter part of the dry 140 season - when there is a serious shortage of cultivated foods. The 439 consumption of tinned meat and fish compensate, to some extent, for the inadequate protein content in the subsistence diet. Similarly, purchases of subsistence produce are restricted to the locally scarce resources of fish and meat, together with lime which is eaten with areca. Other foodstuffs include biscuits, bread, sugar and salt and only certain of these can be treated as purely luxury purchases. The other important commodities purchased are clothing and household goods (principally cooking utensils). Both are now essential elements in the material culture, having displaced their traditional counterparts.

438 In comparing the purchasing patterns of cash and non-cash croppers 439 (and therefore of high and low income households) a clearer pattern 511 of priorities emerges. Among the latter clothing is the most important commodity purchased, followed by rice, meat and fish, and household goods. Together these account for 72 per cent of all purchases. The range of purchases of cash croppers is more widely distributed, the above commodities accounting for only 50 per cent of the total. Thirteen per cent of their expenditure is on goods used in hunting - cartridges, torches, batteries and bulbs - and it is in this activity particularly that their larger incomes are of direct significance in effecting a technological advance and increasing productivity. Their more substantial purchases of rice can be viewed in a similar light - reducing their need to make sago, so enabling them to continue their cash cropping activities through the dry season.

In general purchasing patterns can be readily understood in terms of the requirements of the village economy. Expenditure is largely restricted to goods which have displaced their traditional counterparts or which compensate for seasonal food shortages and there is little evidence of extravagance.

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Table 10:13

Sirupi: household expenditure on commodities over 46.5 weeks

Household		Subsist-ence produce	Rice	Meat/fish (tinned)	Other food-stuffs	Stimulants	Cloth-ing	Other personal goods	House-hold goods	Torches batteries, bulbs	Cartridges	Other tools and equipment	Total
1*	$	2.34	3.80	6.73	8.67	4.26	4.44	4.16	6.72	3.20	0.80	1.64	44.96
	%	5	8	15	20	9	10	9	15	7	2	4	99
2*	$	6.68	14.40	5.17	5.40	0.10	3.00	1.40	0.38	0.20	2.10	0.70	39.35
	%	17	37	13	14	-	8	4	1	1	5	2	102
3*	$	1.00	4.00	3.40	1.76	0.64	3.85	0.44	1.64	1.70	0.40	0.50	19.33
	%	5	21	18	9	3	20	2	8	9	2	3	100
4**	$	-	-	-	-	-	-	-	-	-	-	-	-
	%	-	-	-	-	-	-	-	-	-	-	-	-
5*	$	2.30	3.80	4.54	5.03	0.70	1.34	0.20	1.58	4.46	2.85	1.44	27.34
	%	8	14	17	18	3	5	1	6	16	7	5	100
6	$	0.20	0.40	0.20	-	-	-	0.20	-	-	0.10	1.00	2.10
	%	10	19	10	-	-	-	10	-	-	5	48	102
7***	$	0.20	-	0.20	-	-	-	-	-	-	-	-	0.40
	%	50	-	50	-	-	-	-	-	-	-	-	100
8	$	1.40	0.20	0.60	-	0.84	3.60	-	0.14	0.10	-	-	6.88
	%	20	3	9	-	12	52	-	2	1	-	-	99
9*	$	0.70	6.46	7.18	5.99	6.85	3.25	1.15	3.26	0.50	0.50	0.25	36.09
	%	2	17	19	16	18	9	3	14	1	1	1	101
10	$	-	1.00	1.40	0.20	-	-	-	3.20	-	-	-	5.80
	%	-	17	24	3	-	-	-	55	-	-	-	99
11	$	-	2.14	1.94	2.03	0.78	3.70	0.50	0.24	-	0.90	-	12.23
	%	-	17	16	17	6	30	4	2	-	7	-	99
12†	$	0.40	0.40	0.48	0.40	-	0.70	0.40	-	-	-	-	2.78
	%	14	14	17	14	-	25	14	-	-	-	-	98
13*	$	1.00	6.30	2.94	2.80	0.40	2.40	0.30	-	1.00	1.30	-	18.64
	%	5	35	16	15	2	13	2	-	5	7	-	100
14	$	0.40	1.50	4.28	2.30	0.40	1.70	0.50	4.85	0.40	-	-	15.53
	%	3	10	28	15	3	11	3	26	3	-	-	102
15*	$	1.10	1.90	2.10	2.14	1.54	1.50	3.10	1.24	2.50	7.10	-	24.22
	%	5	8	9	9	6	6	13	5	10	29	-	100
Total	$	17.54	44.50	41.16	36.92	16.51	29.48	12.35	22.35	14.06	15.25	5.53	257.45
	%	7	18	16	15	6	11	5	9	5	6	2	100
Percentage:													(£312.93)
Cash croppers		7	19	15	15	7	9	5	7	6	7	2	99
Non-cash croppers		6	13	20	11	4	22	4	17	1	2	2	102 (£44.72)

* Cash cropping households. ** Surveyed for 6.5 weeks only. *** Surveyed for 27.5 weeks only. † Surveyed for 11.5 weeks only.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Table 10:15

Rivers: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisition						Disposal					
	Total	1	2	3	4	5	Total	1	2	3	4	5
	(lbs)						(lbs)					
Subsistence produce	11,353	96	1	2	-	1	15,091	73	-	4	2	21
deviant items:												
Xanthosoma	350	94	-	6	-	-	104	92	-	1	-	7
Sweet potato	1,136	95	4	-	-	1	2,332	55	-	-	-	45
	(hrs)						(hrs)					
Labour services	1,170	99	1	-	-	-	1,108	99	-	1	-	-
	($)						($)					
Cash crops	-	-	-	-	-	-	71.60	-	-	-	-	100
Storebought goods	314.16	19	1	8	26	46	25.43	99	-	-	-	1
deviant items:												
Rice	32.30	16	1	6	1	76	5.42	97	-	-	-	3
Tinned fish	29.22	29	1	6	-	64	5.10	98	-	-	-	2
Tinned meat	11.20	-	4	15	3	78	0.06	67	-	-	-	33
Clothing	56.30	-	-	6	74	19	3.14	100	-	-	-	-
Bedding	9.20	-	16	-	57	27	-	-	-	-	-	-
Cartridges	19.80	39	-	1	-	61	2.00	100	-	-	-	-
Socks	3.50	14	-	86	-	-	1.50	100	-	-	-	-
Watch/radio	30.00	-	-	33	67	-	-	-	-	-	-	-
Cash	273.72	13	-	7	34	46	279.20	20	-	-	-	80

1 = subsistence villagers; 2 = settlers; 3 = wage earners within District; 4 = wage earners outside District; 5 = organisations.

137
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437 absences from the village[1] and the services are normally reciprocated with goods originating in the external sector.

The exchange of cash crops (for cash) is wholly bilateral in form - between producer and buyer - with no other movement identifiable. This does not apply to storebought goods. While 46 per cent are obtained directly from trade stores and other organisations, significant quantities are also received from wage earners, as well [438] as from other subsistence villagers. The bulk of goods obtained from organisations are foodstuffs and stimulants (59 per cent) and these may be consumed casually or redistributed, primarily in [439] ceremonial exchanges. Wage earners outside the District are the second most important source of storebought goods; in this case the goods are largely non-perishable and of a comparatively high value 431 as, for example, a radio, clothing, bedding and linen. Three parcels of gifts received were valued at $44, $35 and $19 each. Not only are such items suited for postal delivery but these are the only people that can really afford to make such gifts. Wage earners within the District are unable to make large gifts, both because of their lower incomes and the frequency of inter-visiting. Instead small quantities of food or used clothing are commonly given by them, although on one occasion a villager received a second-hand watch and on another, a number of sacks. The latter are highly valued for the storage of coffee.

438 The 19 per cent of storebought goods obtained from villagers 439 fall into two categories - food which, as stated above, is mostly ceremonially exchanged,[2] and cartridges. Both the owners (or the operators) of shotguns received frequent requests to hunt on behalf of others, in return for the supply of cartridges. However, one of them also expected an additional payment of 10c per cartridge from some people for the service.[3]

437 With the exception of a few small gifts of prepared food made to the researchers, the acquired storebought goods are only given to other subsistence villagers. Essentially, therefore, the pattern of movement of these, as of subsistence produce, reflects the different resource bases of the various socio-economic categories where the diffusion of kin facilitates reciprocally based exchange or, in the absence of kin, monetary exchange. The opportunities for this latter type are enhanced by the introduction of non-kinsmen into the subsistence villagers' orbit, particularly as mission

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[1] See p.77.

[2] In one minor feast an individual received thirteen tins of fish and large pots of rice and tea, apart from the customary range of subsistence produce.

[3] See p.119.

employees. The need for these people to evolve some sort of exchange relationships with neighbouring villagers is explained by their low salaries and restricted subsistence resources. Their presence also facilitates long distance hawking, in that people from the coast will come to stay with relatives employed inland, bringing with them their fish and lime.

The main use of cash is as the medium of exchange with the external sector and most transactions are, therefore, with organisations, with 80 per cent of disposals to them. These cover not only purchases of goods but tax payments and mission contributions, which together account for 15 per cent of all disposals to organisations. Only a part of this expenditure is met by the sale of cash crops and subsistence produce and by village-based wage labour. If gifts from the researchers are disregarded, remittances from wage earners outside the District rank with earnings produced directly by the sample's endeavours (37 and 40 per cent respectively of total acquisitions), while a further 8 per cent of total income is derived from wage earners within the District. In effect the external sector of the village economy is dependent to a very substantial extent on the earnings of those kinsmen in wage labour.

The geographical dimensions of exchange

As revealed in the preceding section, the entry of a number of kinsmen into the external sector of the economy and their scattering over a wide area considerably complicate the spatial dimensions of exchange by introducing something of a random element based upon the distribution of expatriate settlements and institutions rather than of indigenous population. Thus, three-quarters of all clothing originates from Port Moresby since that is where the highest income earners (among kin) are employed; the 34 per cent of cash income obtained from wage earners outside the District came from three separate points in the Central, Gulf and Western Highlands Districts where relatives are stationed; while the bulk of foodstuffs are purchased in a store at Awala - one hour's walk from the village - rather than another at Kongehambo - only 20 minutes away - because the former is better stocked.

With novel means of communication available, particularly the postal service, the circulation of non-perishable goods which are not a product of the village economy is largely independent of factors of distance. Further, such circulation operates primarily outside the network of subsistence villagers, is restricted principally to the monetary system and is of a more strictly 'economic' nature. By contrast the exchange of subsistence produce and labour services takes place predominately at the village level, and here a more significant geographical (and sociological) dimension to exchanges can be identified.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

438
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Table 11:1

Inamb: major items of non-monetary exchange over the whole survey period

	Acquisition			Disposal		
	Total (lbs)	%	Amount* received from researchers (lbs)	Total (lbs)	%	Amount* given to researchers (lbs)
A. Subsistence produce						
Taro	5,494	39	15	6,307	46	271
Xanthosoma	353	3	-	141	1	2
Sweet potato	1,419	10	2	1,235	9	69
Yam	406	3	2	457	3	13
Pitpit	160	1	-	221	2	4
Banana	1,098	8	6	528	4	18
Pumpkin	521	4	-	410	3	18
'Soup'	261	2	-	266	2	9
Sago	263	2	4	135	1	1
Coconut	324	2	5	416	3	25
Sugar-cane	546	4	19	662	5	73
Other cultivated produce	833	6	4	631	5	31
Fish	165	1	-	172	1	9
Wallaby	313	2	-	241	2	2
Wild pig	1,461	11	-	1,836	13	2
Other produce of hunting, fishing and foraging	156	1	-	151	1	3
Other	160	1	-	48	-	-
Total	13,933	100	57	13,857	101	550
B. Services	Hours	%		Hours	%	
Labour, cash sector	52.8	8		53.1	12	
Labour, subsistence sector	578.4	92		386.8	88	
Total	631.2	100		439.9	100	
C. Store-bought goods	$	%	$	$	%	
Rice	35.34	20	8.86	12.94	31	
Tinned fish	13.12	8	0.40	6.16	15	
Tinned meat	11.02	6	1.58	1.30	3	
Bread	4.46	3	0.36	3.08	8	
Tea	1.84	1	0.26	1.04	3	
Sugar	4.90	3	0.30	1.62	4	
Flour	1.20	1	-	0.90	2	
Soft drinks	1.34	1	0.38	0.90	2	
Sweet biscuits	4.12	2	0.20	1.94	5	
Prepared refreshments	2.36	1	1.60	0.54	1	
Alcoholic drinks	8.38	5	2.44	-	-	
Trade tobacco	19.66	11	14.90	2.26	6	
Cigarettes	1.96	1	0.14	0.14	-	
Other foodstuffs	2.44	1	1.06	0.36	1	
Clothing	39.60	23	25.20**	6.70	16	
Other personal goods	9.42	5	8.18	0.24	1	
Household goods	8.62	5	5.94	0.04	-	
Tools and equipment	4.90	3	1.04	0.70	2	
Total	174.18	100	65.04	40.96	100	

* Included in total.
** Includes parcel of clothing valued at $21.54 from research worker in Australia.

438 proportion formed by pitpit is due to the fact that it was only in season during the first twelve weeks of the survey (see Table 11:4). Yams, Xanthosoma and sago are similarly seasonal and in certain weeks are more prominent than shown here. Of the other cultivated products, areca nuts are important although they amount to only 93 lbs acquired and 39 lbs disposed over the survey. One lb consists of approximately 24 areca nuts, so that about 86 nuts were acquired and 36 nuts disposed of by the village as a whole each week. In other words, there is a regular traffic in areca. Inonda people are dependent on outsiders for the nut because the palm does not grow well on their land.

It is noteworthy that the total acquisitions and disposals of subsistence items are very close to balancing - the excess of the former amounts to only 76 lbs out of a total of 14,000 lbs. However, the reservation should be made that the balance is achieved by equating all items on the basis of weight, and this does not exactly reflect Orokaiva methods of calculation. It is, nevertheless, probable that the outflow of the most favoured foods - taro (800 lbs) and pigmeat (375 lbs) - helps to balance the inflow of services and storebought goods and that this is an expression of the Orokaiva ideal of reciprocity in relationships.

437 (ii) Labour services. The exchange of labour services is to
[431] some extent a matter of individual inclination. Where an obligation exists, it has not necessarily been incurred through an equivalent service, nor is reciprocation in this way essential - it may, instead, be through a gift of garden produce and obligations and reciprocations may be separated by a time-lag of a year. For this reason and others discussed below, the pattern of services over a period varies from individual to individual and acquisitions and disposals are not often in balance. In Table 11:1 the excess of acquisitions over disposals of labour services in the subsistence sector reflects large amounts of labour given by people from other villages, mostly young men staying for a few days or weeks with kin in Inonda. They contributed 42 per cent of subsistence services, in such tasks as house-building, sago-making and gardening. If it is assumed that people who are temporarily absent from Inonda follow the same work patterns as people temporarily resident, this apparent excess would be considerably reduced.

439 (iii) Storebought goods. Table 11:1 also shows the values of
431 goods derived from trade stores that are circulated through the
[123] gift exchange system. Thirty-seven per cent of the total value of acquisitions shown was in gifts from research workers. One-third of this was in the form of a parcel of clothing from a research worker in Australia and the rest was contributed during the survey. The most significant contributions were of trade tobacco, mosquito nets (shown as 'personal goods'), clothing and a suitcase given to the leading man for his journey to Port Moresby.

Discounting the effects of the researchers' presence, there is a considerable excess of acquisitions over disposals. This largely reflects the continued participation in the gift exchange system of villagers' kin who are in close contact with the monetary sector as wage earners or settlers (see Table 11:9).[A] The contributions of such people are particularly marked in the case of rice and clothing, which are, in terms of value, the most important items of storebought produce entering the gift exchange system. As well as rice, tinned fish, bread, trade tobacco and several lesser food items all enter into the exchange system occasionally. They are invariably given in small quantities, sometimes in the daily food transfers and sometimes as contributions to a feast or party.

(b) Monetary sector

Table 11:2 shows the total values of items acquired and disposed in exchanges involving an immediate return of cash. Purchases of subsistence produce are insignificant compared with the amounts acquired through gift exchange and they are usually made to fulfil an urgent need, such as feast contributions. Areca nuts, however, are bought occasionally. They are mostly obtained in the Popondetta market, whereas fish and game are purchased from hawkers. Some garden produce was sold to road construction workers early in the survey, but the main sales of subsistence produce were made in Popondetta market during periods II and III and comprised mostly fish and smoked meat from hunted animals. The Inonda people acquire almost four times as much cash from sales as they spend on purchases of subsistence produce.

In total, subsistence produce accounts for only a small proportion of monetary exchanges, which are concerned mainly with storebought goods. The total value of purchases of such goods is almost $200. As with gift exchange, clothing and rice are the most important items, with certain other foodstuffs - tinned fish, bread, sugar, biscuits and flour - also accounting for significant proportions. Apart from food and clothing, the main items purchased comprise household goods and tools and equipment for work.

Apart from goods sold through the medium of the trade store,[1] copra was the only non-traditional commodity sold during the 26 weeks of the recording periods. Some coffee was, however, sold in the weeks intervening between the three periods.[2]

The excess of acquisitions over disposals of storebought foods is evidence of the comparatively slight degree to which they enter into the gift exchange system, with the exception of rice and tinned

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[1] For details of the operation of the trade store, see p.255. B

[2] See p.257.

A.[See Category 892, p.247--Analyst] B.[See Category 444, p.235--Analyst]

meat and fish. Between 4 and 6 lbs of rice are given out each week on average, mostly as plates of cooked rice.

Table 11:2

Inonda: major items of monetary exchange over the whole survey period

	Acquisition			Disposal		
	lbs	$	%	lbs	$	%
A. Subsistence produce						
Xanthosoma	50.0	0.70	9	-	-	-
Banana	-	-	-	25.0	2.10	7
Coconut	2.0	0.10	1	15.0	0.75	2
Areca	9.8	2.06	27	1.0	0.20	1
Tobacco	-	-	-	0.5	0.20	1
Fish	8.5	2.10	27	39.0	6.80	23
Crocodile	-	-	-	12.0	4.50	15
Bird	-	-	-	12.0	2.10	7
Bandicoot	1.0	0.10	1	3.5	0.90	3
Wallaby	5.0	0.30	4	35.0	3.50	12
Pig	21.0	2.40	31	87.5	8.30	28
Eggs	-	-	-	0.3	0.30	1
Total	97.3	7.76	100	230.8	29.65	100

B. Storebought goods	$	%	$	%
Rice	21.40	11		
Tinned fish	16.86	8		
Tinned meat	5.98	3		
Bread	13.04	7		
Sugar	12.94	7		
Flour	12.60	6		
Soft drinks	4.72	2		
Sweet biscuits	11.44	6		
Hard biscuits	2.20	1		
Prepared refreshments	8.10	4		
Other foodstuffs and medicines	5.72	3		
Cigarettes, tobacco, alcoholic drinks	4.00	2		
Clothing	37.44	19		
Other	12.16	6		
Household goods	13.40	7		
Tools and equipment	16.70	8		
Copra			2.32	100
Total	198.70	100	2.32	100

Table 11:5

Inonda: mean weekly transactions of storebought goods during each recording period
($)

Item		Period I	Period II	Period III
Rice	Acquisition	2.56	2.39	1.89
	Disposal	0.62	0.39	0.61
Tinned fish/meat	A	2.00	1.48	2.09
	D	0.39	0.14	0.40
Bread	A	0.67	0.79	0.71
	D	0.16	0.12	0.08
Sugar	A	0.79	0.92	0.53
	D	0.17	-	0.04
Sweet biscuits	A	0.74	0.41	0.50
	D	0.17	-	0.05
Prepared 'snacks'	A	0.33	0.70	0.38
	D	-	0.03	0.03
Flour	A	0.04	2.24	-
	D	-	0.15	-
All storebought goods (incl. those not shown)	A	15.40	14.70	16.35
	D	1.67	1.82	2.99

acquisitions and disposals of subsistence products, whereas sweet potato accounts for 18 per cent and yam 10 per cent of acquisitions, and the same crops account for 12 per cent and 15 per cent respectively of disposals. Of the crops that may be stored, yams are clearly a dry season crop in terms of exchange as well as of harvesting (see Table 7:3), but Xanthosoma and sago are significant later in the year also. The level of transactions of bananas also increases in the dry season.

Although taro is still harvested during the dry season, there is a clear need to supplement it with other foodstuffs. This need is met in several ways: firstly, by production of sago, yams and manioc and by collection of green leaves and shoots. (These last substitute for pitpit, which is harvested only in the early part of the year.) Secondly, Table 11:4 suggests that Inonda receives net 'imports' of crops such as taro and sweet potato at this time from other villages. Thirdly, flour and rice are purchased, in addition to considerable quantities received as gifts from outside the village, and the net acquisitions by the villagers amount to an average of 20 lbs of each commodity per week. All the households purchased either rice or flour and all acquired some through gifts. The fall in acquisitions of taro per week from period I to period II is 70 lbs,

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 11:17

Inonda: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce:			(lbs)			(lbs)
Taro	40	60	5,494	6	94	6,307
Sweet potato	31	69	1,419	17	83	1,235
Yam	36	64	406	19	81	457
Banana	42	58	1,098	34	66	553
Pumpkin	21	79	521	16	84	410
'Soup'	70	30	261	3	97	266
Coconut	48	52	326	56	44	431
Sugar-cane	49	51	546	33	67	662
Areca	42	58	93	36	64	39
Other garden produce	44	56	1,566	26	74	1,089
Fish	49	51	174	71	29	211
Wallaby	81	19	318	85	15	276
Pig	77	23	1,482	85	15	1,923
Other produce of hunting, fishing and foraging	55	45	157	46	54	179
Other weight items	-	100	160	48	52	48
Labour services:			(hrs)			(hrs)
Cash	98	2	52.8	67	33	53.1
Subsistence	88	12	578.4	78	22	386.8
Storebought goods:			($)			($)
Rice	58	42	56.74	33	67	12.94
Tinned fish	67	33	29.98	54	46	6.16
Tinned meat	66	34	17.00	54	46	1.30
Bread	82	18	17.50	89	11	3.08
Sugar	75	25	17.84	100	-	1.62
Salt	48	52	1.24	-	100	0.12
Trade tobacco	71	29	21.24	45	55	2.26
Other foodstuffs and cigarettes	82	18	69.34	67	33	5.80
Clothing	60	40	77.04	55	45	6.70
Cooking utensils	21	79	9.76	-	-	-
Other storebought goods	88	12	42.60	14	86	0.78
Cash	88	12	337.36	90	10	340.70

	Men	Women	Total
Number of days surveyed	1,443	1,339	2,782
Percentage of total	52	48	100

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 [439] [556] As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they acquire less than men in this way) and husbands also give their wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the routine daily exchanges of cooked food. This is true of flour also in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

438 exclusive. Representatives of the external agencies were, for this purpose, grouped in a single category as 'organisations' (for example, the local government council, the army, the markets and trade stores). The term 'subsistence villager' includes those growing cash crops.

Table 11:18 shows how transactions of each category of goods and services are distributed among partners according to their occupational category. Items which deviate significantly (in most cases between 10 and 15 per cent) from the mean for their respective categories are shown separately.

As might be expected, the dominant position of villagers in exchanges of subsistence items is clear. For several items they account for 100 per cent of the total, although in the case of Xanthosoma only 34 per cent was acquired from this source. One household received several large gifts of the tuber from a New Guinea plantation labourer it had befriended, while some was also purchased at Popondetta market. Other noteworthy deviations include fish and game where significant quantities were sold at the market or given to settlers. In fact 34 per cent of the subsistence produce disposed to settlers comprised pigmeat, due, specifically, to a villager hunting on behalf of a relative on two occasions.

439 In contrast to the subsistence items, only a minority of non-traditional acquisitions is from villagers. Disposals of such items are smaller than acquisitions and only in a few cases - rice, tinned fish and clothing - is the total value above $6. Most disposals, particularly of food, are to other villagers. Most (over two-thirds) of the non-traditional items are acquired from trade stores (organisations). However, other people make significant contributions of some items: wage earners provide over half the alcoholic drinks, half the salt and considerable proportions of the rice, tinned fish and meat, and cigarettes, while the settlers are also a minor source of foodstuffs. The villagers clearly derive considerable benefit from the continued operation of the gift exchange system with these people, but most particularly with the wage earners who participate more fully in the monetary economy than settlers.

437 As regards labour services, almost all acquisitions are from subsistence villagers. Disposals in the subsistence sector naturally go largely to other villages although some help is given to settlers. In the cash sector, one-fifth of the labour services goes to settlers but none is received from them.

437 Most cash transactions are effected with organisations (52 per
434 cent of acquisitions and 77 per cent of disposals) but exchanges with other villagers are of secondary importance. Settlers and wage earners also play an important role as sources of cash. The largest item in transactions between villagers consisted of $36 paid out by the entrepreneur to the six men who worked for him on

[TEXT CONTINUED ON PAGE 267]

Table 11:18

Inputs: the circulation of goods and services by occupational category of partner
(percentages)

	Acquisitions						Disposal				
	Total	1	2	3	4	5	Total	1	2	3	5
	(lbs)						(lbs)				
Subsistence produce	14,032	85	9	5	-	1	14,088	78	7	8	6
deviant items:											
Xanthosoma	403	34	2	52	-	12	141	81	-	17	2
Fish	174	94	2	4	-	-	211	69	2	6	23
	(hrs)						(hrs)				
Labour services	631.2	98	-	2	-	-	439.9	93	6	1	-
Cash sector	52.8	97	-	3	-	-	53.1	79	21	-	-
Subsistence sector	578.4	98	-	2	-	-	386.8	95	4	1	-
	($)						($)				
Storebought goods	373.04	9	3	17	-	71	43.60	80	4	3	12
deviant items:											
Rice	56.74	15	7	39	-	39	12.94	82	6	1	11
Tinned fish	29.98	17	5	20	-	58	6.16	86	3	1	10
Tinned meat	17.00	17	5	34	-	44	1.30	100	-	-	-
Bread	17.50	12	1	9	-	78	3.08	81	13	-	6
Sugar	17.06	2	7	17	-	74	1.62	86	-	-	14
Tobacco	21.24	4	5	6	-	85	2.26	87	4	9	-
Flour	13.00	6	-	3	-	91	0.90	100	-	-	-
Clothing	77.04	5	-	14	-	81	6.70	100	-	-	-
Cartridges	7.22	10	8	3	-	79	4.50	100	-	-	-
Cash	337.34	21	11	13	4	32	340.70	19	-	4	77

1 = subsistence villagers; 2 = settlers; 3 = wage earners within Northern District; 4 = wage earners outside Northern District; 5 = organisations.

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Table 11:20

Inonda: destinations of main subsistence products discussed by the people

Item	Taro	Sweet potato	Yam	Banana	Pumpkin	Sago	Coconut	Sugar-cane	Corn	Areca	Fish	Wallaby	Pig	Total subsistence produce*	
Village	Percentage**													lbs	%
Inonda	70	72	85	75	74	86	56	69	81	74	58	67	67	9,940	71
Mahomo and Ajoro	4	5	2	1	6	7	3	2	1	3	1	20	-	470	3
Ijika	5	4	1	4	-	1	6	3	-	3	8	-	8	623	4
Sengara	1	2	-	3	-	-	-	-	-	-	1	-	-	110	1
Girua block	7	4	3	7	4	-	11	5	4	10	3	-	17	990	7
Hoeou	2	2	1	2	4	-	1	5	-	2	5	-	1	274	2
Sewa	1	1	1	-	-	3	2	1	-	1	-	-	-	131	1
Evundo	2	-	-	5	-	-	5	3	-	-	1	-	-	234	2
Urio	1	-	-	-	-	-	3	-	-	-	1	-	-	100	1
Popondetta	1	4	5	-	-	2	3	2	11	2	20	13	4	495	3
Ururu	5	1	1	1	10	1	1	1	1	-	1	-	-	384	3
All other places***	1	5	1	-	3	-	5	9	1	6	2	-	3	288	3
	100	100	100	98	101	100	98	100	99	101	101	100	100	14,090	100
Total in lbs	6,307	1,235	457	553	410	135	430	662	165	39	211	276	1,923		

* Including items not shown, ** Columns do not necessarily add to 100 due to rounding, *** Eighteen in all.

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437 on the western slopes of Mt Lamington some 13 miles away (but 40
438 miles by road). As will be seen by comparing Tables 11:20 and
439 11:22, links between Inonda villagers and kin who are in wage
employment in Ururu, Popondetta or on plantations are characterised
by an outflow of garden produce from Inonda and an inflow of store-
bought foods, clothing and cash. Many of the disposals to people
from places more than two miles distant take place in Inonda - a
string bag of vegetables weighing 35 lbs or more is rarely carried
for any great distance and this in itself ensures a comparatively
low volume of transactions of vegetable produce over distances
greater than three or four miles. One of the main items of long-
distance exchange is areca, which Inonda people receive mostly from
villages such as Sewa and Kendata higher on the slopes of Mt Lamington.

In general, about half the subsistence transactions with people in the above places is of taro, with sweet potato, banana, sugar-cane and pigmeat also prominent. The bulk of acquisitions from kin in Urio, however, was of sweet potato, which had been planted as a 'catch crop' on land cleared for cocoa trees. The Xanthosoma bought at the market formed two-thirds of the acquisitions from Popondetta and fish and game formed almost half of the disposals, these going almost entirely to the market. Half of the acquisitions from Ururu (the mission station at Popondetta) were bananas - presumably such a crop is most easily grown by mission staff with little time (and land) at their disposal.

437 (ii) Labour services. The Inonda people receive over half of all labour services from their co-residents while most of the others came from only three other places: Sewa, where the entrepreneur's mother's sister's sons live; Ijika, where there is a branch of one of the component lineages of the Andiriha clan; and Kendata, the home village of the wife of one Inonda man (see Table 11:21). In the case of Sewa and Kendata, young people came to stay with and assist their Inonda kin for periods of a few weeks; the Sewa men assisted particularly in sago-making and construction, but also in some tasks related to the cash sector. Disposals of labour services are mainly to Inonda people but a considerable amount of assistance in cash sector tasks goes to kin in Ijika and to settlers on the Girua block. It should be noted that, although no labour assistance is received from settlers, Inonda people receive more commodities, both traditional and non-traditional, from the settlers than they give to them.

439 (iii) Storebought goods. The distribution of transacting
366 partners for non-traditional goods differs greatly from that for garden and forest produce (see Table 11:22 and 11:23). The principal factor involved is the presence of trade stores as the main source of such goods. Thus, Popondetta, with several stores and within reasonably easy travelling distance, provides 40 per cent of Inonda people's total acquisitions of non-traditional goods,

Table 11:21

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Inonda: the geographical distribution of labour service transactions

Item	Acquisitions				Disposal			
	Labour, cash sector	Labour, subsistence sector	Total labour services		Labour, cash sector	Labour, subsistence sector	Total labour services	
Villages	Percentage		hours	%	Percentage		hours	%
Inonda	54	56	350.7	56	54	83	351.2	80
Nahemo and Ajoro	-	1	7.5	1	-	1	4.0	1
Ijika	21	3	27.2	4	19	7	36.7	8
Mosou	-	1	7.2	1	-	3	10.5	2
Sewa	22	29	179.5	28	-	-	-	-
Evundo	-	-	2.0	-	-	-	-	-
Popondetta	3	-	1.5	-	-	1	2.7	1
Ururu	-	1	8.0	1	-	-	-	-
Kendata	-	8	47.6	8	-	-	-	-
Girua block	-	-	-	-	21	4	27.5	6
Banga	-	-	-	-	-	-	3.0	1
Jonita	-	-	-	-	-	1	1.0	-
Urio	-	-	-	-	6	-	3.3	1
Total	100	99	631.2	99	100	100	439.9	100
Total hours	52.8	578.4			53.1	386.8		

although for some items the proportion derived from people or stores in Popondetta is considerably smaller. These latter include items widely-stocked in small village stores and items that circulate within the gift exchange system, such as rice, tinned fish and sweet biscuits. The prominence of Evundo as a source of non-traditional items was due to the opening of a store there in mid-1964 rather than to the links established with the road labourers' encampment. At both Ijika and the Girua block are trade stores where purchases were made, although gift exchanges were also effected with kin living there. Goods obtained from Saiho, Sangara and Ururu are exclusively gifts from kin in wage employment rather than purchases. As a result of the distribution of stores and of wage earning kin, over 55 per cent of the non-traditional goods acquired by Inonda people come from distances greater than five miles. Disposals by Inonda

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[TEXT CONTINUED ON PAGE 274]

8: Waddell & Krinks E-4,5 (1964-1965) 1964 0723 Orokaiva 0723

Table 11:22

Inonda: places of origin of main store-bought goods acquired by the people

Item	Rice	Tinned fish	Tinned meat	Bread	Sugar	Sweet biscuits	Alcoholic drinks	Snacks	Tobacco	Flour	Clothing	Cooking utensils	Other personal goods	Cartridges	Total	
Village	Percentage*														$	%
Inonda	29	30	9	22	20	40	28	18	83	3	7	-	84	12	91.76	25
Ijika	7	7	30	2	3	11	3	2	1	-	-	-	-	14	18.10	5
Girua block	7	7	6	1	12	6	-	2	5	-	2	-	-	12	14.82	4
Sova	1	1	-	-	-	1	-	1	-	-	-	-	-	-	3.46	1
Evundo	12	18	5	5	20	10	-	8	2	3	3	16	-	25	30.64	8
Popondetta	22	17	40	62	31	30	26	48	3	87	49	65	14	28	148.66	40
Ururu	6	2	7	3	7	5	29	-	1	2	-	6	-	-	12.58	3
Saiho	9	6	-	-	-	2	-	-	-	-	3	13	-	-	11.04	3
Sangara	5	5	-	1	1	-	-	-	2	-	3	-	-	-	9.60	3
Australia	-	-	-	-	-	-	-	-	-	-	28	-	-	-	21.34	6
All other places**	1	4	3	2	5	5	13	1	1	-	2	-	-	8	10.62	3
	99	97	100	98	99	100	99	100	98	99	101	100	100	99	372.84	101
Total in $	36.74	29.98	17.00	17.50	17.84	15.56	8.60	10.46	21.24	13.80	77.04	9.76	21.58	7.22		

* Columns may not add to 100 due to rounding.

** Sixteen in all.

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Table 11:23

Inonda: destinations of main storebought goods disposed by the sample

Item / Village	Rice	Tinned fish	Tinned meat	Bread	Sugar	Sweet biscuits	Snacks	Tobacco	Flour	Clothing	Cartridges	Total $	Total %
	Percentage*												
Inonda	69	75	54	70	81	56	56	34	87	40	100	25.84	60
Ijika	16	16	46	6	19	23	-	-	2	-	-	4.64	11
Sova	1	1	-	-	-	7	7	6	-	22	-	2.64	6
Urio	-	-	-	-	-	-	-	-	-	30	-	2.00	5
Oro Bay	-	-	-	-	-	-	-	-	-	-	-	2.32**	5
Girua block	6	3	-	13	-	12	-	4	-	-	-	1.94	4
All other places***	6	5	-	10	-	-	38	54	9	7	-	3.94	9
	98	100	100	99	100	98	101	98	98	99	100	43.32	100
Total in $	12.94	8.16	1.30	3.08	1.62	1.94	0.34	2.26	0.90	6.70	0.50		

* Columns may not add to 100 due to rounding.

** Copra only.

*** Fourteen in all.

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81 Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Table 12:1

Sivepe and Inonda: the volume of transactions per man-week compared

Item	Acquired		Disposed	
	Total	Mean (per man-week)	Total	Mean (per man-week)
Sivepe				
Subsistence produce (lbs)	11,553.00	17.10	15,091.00	22.30
Cash crops ($)	-	-	71.60	0.11
Labour services (hrs)	1,170.00	1.70	1,108.00	1.60
Storebought goods ($)	314.16	0.46	25.43	0.04
Cash ($)	273.72	0.40	239.20	0.35
Inonda				
Subsistence produce (lbs)	14,032.00	35.30	14,088.00	35.40
Cash crops ($)	-	-	2.32	0.01
Labour services (hrs)	631.20	1.60	439.90	1.10
Storebought goods ($)	373.04	0.94	41.08	0.10
Cash ($)	337.36	0.85	340.70	0.86

Total man-weeks: Sivepe - 677.3
Inonda - 397.4

wage-labour force may be related to this local diversity, and the fact that it is readily exploited through the medium of exchange, both monetary and non-monetary. Compared with their Sivepe counterparts, the Inonda people dispose of twice the volume of subsistence produce through the monetary sector, with sales of fish and game in Popondetta predominating. With settlers a wide range of subsistence produce is exchanged, labour services are rendered and cash payments received, while wage earners, whose involvement in the cash economy is greater than that of the settlers, serve as important sources of storebought goods and cash, which may be reciprocated with subsistence produce.

At Sivepe there appears to be less incentive to develop exchange relationships outside the village context. Apart from lime and fish there is little subsistence produce not readily available locally. The demand for produce at Saiho market is limited, while the prices obtained discourage regular selling. The few wage earners residing in the neighbourhood have small incomes and invariably maintain their own gardens. Consequently they control few goods not directly available to the villagers themselves from their own resources.

434 184 Per capita, the Inonda people handle more than twice the amount of cash and storebought goods as do those in Sivepe. Furthermore, there are important differences in their respective income and expenditure patterns. In Inonda cash is derived from a wide range of activities, among which cash cropping is only of minor importance. Contracting and sales to the Administration provide the single most important source, accounting for almost one-fifth of total income. In Sivepe almost two-thirds (60 per cent) is derived from cash cropping and remittances. In both villages, but more particularly in Inonda, cash is acquired on a very irregular basis. Even with coffee, for which there is a defined buying season of about seven months, there are seldom more than three or four opportunities to sell and the villager has no way of predicting when these will occur. This, perhaps more than actual size of income, is a major determinant of expenditure patterns, making both budgeting and capital accumulation hazardous.

439 184 At Inonda, with its higher per capita income and fewer formal demands placed on it,[1] more is spent in trade stores than at Sivepe, yet this expenditure is distributed over a similar range of commodities. In both cases foodstuffs and stimulants account for almost two-thirds, with the balance being spent on a wide range of cheap clothing, household goods and tools. Little of this expenditure is of a 'luxury' nature for, among foodstuffs, flour in Inonda and rice in Sivepe are purchased either wholly or largely during the dry season to supplement the shortage of subsistence foods, tinned fish and meat serve partially to compensate for a general inadequacy of protein in the diet while, among other goods, cartridges, torches and batteries in Sivepe are purchased to improve the efficiency of hunting.

434 184 The excess of income over expenditure in Sivepe is also higher than in Inonda, as is the amount of investment in shares and bank deposits, suggesting that the larger incomes at Inonda are associated with a more rapid turn-over of cash. Even the entrepreneur there, who accounted for almost half (43 per cent) of his village's total income, registered a net credit at the end of the survey of only $5.02 on his household's cash balance. Only he, among all the villagers in the two samples, purchased a major item of capital equipment during the survey - a shotgun costing almost $50. This followed a cash payment of $42, for organising the construction of the researcher's house, rather than an extended period of saving from income.

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[1] The villagers did not contribute to the Papuan Church Fund during 1964, an item which accounts for 10 per cent of total expenditure in Sivepe and exceeds LGC tax payments in importance.

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The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

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The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plaviata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to [435] collect wet beans from Ononda and two other centres. The price in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

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Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

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Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

Table 2

245 242 423 162 464 Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betal nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

434 In addition to their earnings from cocoa production, Yega villagers had four sources of income.

(439) (444) i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

434 438 ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 [811] [787] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 439 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

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[1] Official approval was then necessary for indigenous people to go into debt.

383 654 and later to be provided by the people themselves. This idea was taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 3 June 1964.

●[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 434 Tapping is organised on a rotation system, with one man tapping the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 474 [654] In mid 1964 the villagers built a smoke house, a machine house and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was provided on permanent loan by a local planter.

[402] [454] On 27 October 1964 an Ombi-Tara Village Savings Account was opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 [797] While the bush rubber processing project appears to have been a success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of the district. Later in the 1950s a communal cocoa plantation of some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

245 [654]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

Appendix B

The Ombi-Tara environment and population

131 Ombi village is in the Kokoda sub-district about twenty-seven
[133] miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 The Kumusi River flows close to the Popondetta-Kokoda road,
[361] about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 The nearest school is conducted by the Administration at Ajeka,
972 about two miles away. Most children of the appropriate age attend
[368] school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 The nearest trade store is at Ajeka but this is seldom open,
438 and most purchases are made from the store operated by a European
439 planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 The most important features of the climate are the generally
137 heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

353 [415] *tapa* cloths, also worn on ceremonial occasions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A [372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet [227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 [461] [614] [621] [584] A *gaga* is simply a talking platform where men sit for a chat, a chew (of betelnut) or a smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women. [289] The traditional body covering for both men and women was beaten out bark-cloth of the [171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year singsings, while many older people wear *tapa* to 323 church on Sundays. The Yega and their neigh- [289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-making. They used to trade their *tapa* for pots ● 439 from Ambasi, thirty miles to the north, and [198] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P 11-A)

[TEXT CONTINUED ON PAGE 12-A]

439 buy cheap cloth and durable iron or
178 aluminium pots at the trade stores. Although
every housewife now has two or three large
415 manufactured pots, she keeps them for cook-
252 ing the food for feasts. Most of the daily meals
[437] are still prepared in clay pots but few of these
[431] pots were obtained by the old barter methods;
most were obtained as gifts from friends or
585 relatives. At one wedding, for example, the
431 bride received fourteen clay cooking pots, in
addition to a large supply of mats, string bags,
enamel plates, and dishes: enough to last for
years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

178 A very close relationship exists between
361 economic change, particularly the planting of
cash crops, and changes in the pattern of
settlement. Although most development has
[173] occurred in the last twenty years, there is evi-
dence, supported by the oral traditions of Yega
elders, to show that some evolution of settle-
ment had occurred even before the first con-
173 tact with white men. By tradition the Yega
361 were sea people. This probably means that
they arrived as migrants and originally spent
most of their time aboard their canoes and
lived mainly upon seafood. They settled first on
three small islands, Baroda Deuga, about half
a mile north-east of Waususu Point (Fig. 9).
[133] These islands are today only a few feet above
high tide and are composed entirely of coarse

[P.12-A]

361 423 He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 458 Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents [439] per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two 245 433 cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 178 The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

245 178 423 467 [426] a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 177 Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Heddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966.
235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [295] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [599] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these 438 ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin say, from European planters. Fowls tend to be made available on [435] big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield 241 economic products, those plants which are native to the district 311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepe and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245] [494] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

563 More important was the encouragement given by the Chinese
● 937 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [559] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepa village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is 177 more often Popondetta. Another difference is that whereas Sivepa,
795

177 the people. He was the only white man in the district (omitting
[464] the anthropologists) who actually did this. Finally, some people of Ssombata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

[875] The only taupa residents in the district were the head teacher and his wife; they had daily personal contact with village
[939] people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepa men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepa men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

657 Characteristically, contact between the taupa and villagers
177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to
[242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuma clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Soho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Ambi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepe, as well as Mohorita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

731 the resettlement villages as needed, but soon replaced by issues of
657 the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

452 Although there is provision in the Territory for credit assistance
657 for economic development, small growers of cash crops such as are found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

245 The government provides marketing assistance to New Guinea
652 growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself
245 purchase coffee but when the Higaturu Local Government Council was
479 formed one of its initial functions was to operate a cooperative for
[691] the purchase, processing and exporting of locally grown coffee. Later (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold
[439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Carombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

651 The government also assists agriculture through its research
292 activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

472
441 C visits every few days and counts cash, takes stock and places
212 orders for supplies. D. manages his own store.

(592) Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

441 All the stores have been closed from time to time owing to in-
444 adequacy of money to buy stocks. This has been due to the too
(430) liberal granting of credit,[1] personal use of store stock by the
452 owner or manager, and the use of gross store income for other purposes.

472 All the entrepreneurs feel that trade stores provide more money
441 for less effort than cash-cropping. For all except C this has not
444 been the case in practice. In fact, it is likely that A and B
434 have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of
(626) the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested. [484]

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

An important factor in the growth of interest in cash cropping has been the implementation of a variety of land tenure and marketing schemes, directed entirely towards the indigenous producers and in part initiated by them. Since 1957 the Higaturu council has been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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[1] See Howlett 1965, for a detailed description.

[2] See Crocombe and Hogbin 1963:89-93.

[3] Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

[4] See Crocombe and Hogbin 1963:94-6.

438 consisted in the barter of shells, lime and wooden and clay pots
[437] from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

434 The main sources of cash for Orokaiva villagers are the sale of
[443] cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

244 (i) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be small, frequently less than 0.5 acres in size and containing less
[578] than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the
[433] trees are self-sown. As well as lacking maintenance, in most cases

245 Pods are opened under the trees and the wet beans sold to the Popondetta Cocoa Fermentary Ltd, whose buyers operate along all roads in the cocoa areas between the coast and the Kumusi River. Where it would be uneconomic for the company to buy cocoa, as among the Aiga north of the Kumusi, DASF is the buying agent. Cocoa trees produce throughout the year but sales fall off during the wet season.

249 Rubber is sold as coagulum to a local planter who provides spouts, buckets and tools for incising the bark. A halved coconut shell is commonly used for receiving the latex. Two or three hours after the tree has been tapped, the latex is transferred to wooden boxes, hollowed logs or buckets and allowed to coagulate naturally. Until the inception of the Ombisusu rubber smallholders' factory in mid-May 1964, village rubber production in the Saiho area was restricted to a radius of five miles around the only buying agency at Awala, due to the necessity of carrying the rubber on foot to the factory. Rubber trees produce throughout most of the year, although there is a 'wintering' period of three months from August to October.

245 Copra can be sun-dried but most producers build a drying shed either of local materials or of corrugated iron left after the second world war. A shed may belong to an individual or a group and the drying system also may be individual or co-operative. Several hundred nuts are needed to make copra production worthwhile.[1] The nuts are halved and the fleshy interiors placed on a rack above a low fire kept almost smoke-free by using dry wood or discarded shells. After about a week, the copra is dry enough to be bagged [435] and sold at one of the co-operative buying agencies at Killerton, Buna and Oro Bay on the coast. The price is determined by the Copra Marketing Board and varies slightly with quality.

438 (ii) Marketing. In addition to the long-distance trading of subsistence produce by coastal people, the inland people are also [443] beginning to trade meat (pig, wallaby, etc.), smoked fish, areca, lime and locally grown tobacco for cash with other villagers, either by hawking or in the markets held regularly at Popondetta and Saiho.[2] Vegetables also are sold in the markets. At Popondetta a considerable variety of fresh vegetables, fruits and meat is bought by both indigenous and expatriate residents. Most vegetables

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[1] At Inonda there is an average of fifteen coconut trees per household producing an estimated 450 nuts per household per year. Assuming that a household uses one nut daily for cooking or drinking, this leaves less than 100 nuts per household for copra.

[2] See Dakeyne 1965:102-9, for a description of Popondetta market. Although sales of pigmeat in particular to villagers are increasing, the practice is deplored by the older people who have little or no cash in hand.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

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431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

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525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

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[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

434 and the remainder in either shares or savings accounts. Four of
454 the eleven households had no monetary assets at this time, while six had no cash in hand.[1]

Table 4:5

Sivepa: monetary assets of households, January 1965
($)

Household no.	Cash	Savings bank	Shares OCCS	Shares Oro Ltd	Clan savings account	Total
1	24.00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

454 Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies,
[546 the OCCS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCCS declared a dividend of 5 per cent.

614 Two members of Timmu clan had contributed to a clan savings account which was supported mainly by clansmen in another village,
454 Soroputa. In 1964 it was decided to use the funds to establish a
443 trade store in that village. Even if implemented it is doubtful whether this store would be profitable, since Steamships Trading

[1] Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

[TEXT CONTINUED ON PAGE 47]

Company already operates a trade store with a liquor licence close to the village.

(e) Other household property

The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petoe (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

* For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

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Plate 11. Taro, pigmeat, areca, rice and tinned fish on display in Inonda prior to presentation to a Girua settler.

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Plate 12. Stalls at Popondetta market, where people from Inonda frequently sell their produce.

'paddy' to food, prevented the conversion of the food to cash,[1] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

Rice continued to be grown for about a year after Rev. Clint's departure; small quantities were sold by the cupful but the income received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

A subsequent co-operative, organized by the Administration and known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

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Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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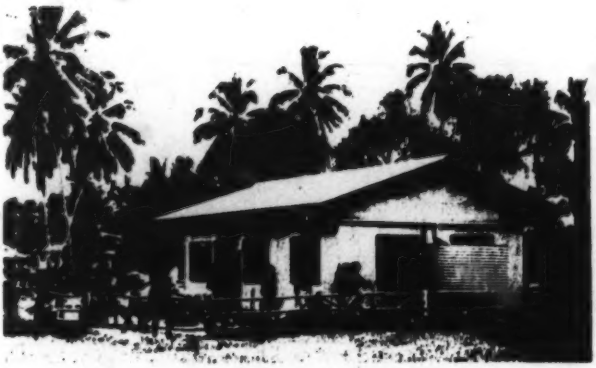

Gona villages co-operative store at Cape Killerton.

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½d. to 4d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

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[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

474
443
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361
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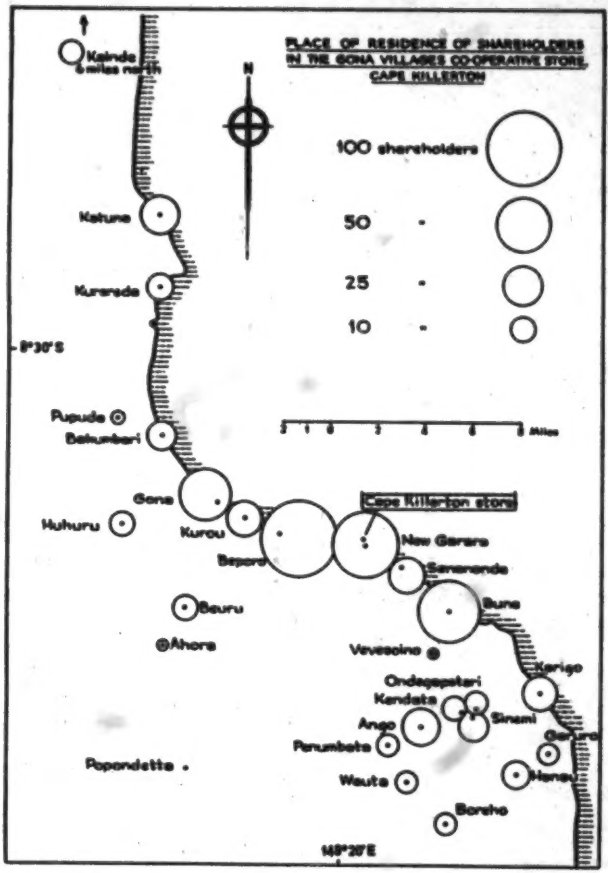

Note. At the time of joining the society Yega members lived in eight small villages but total Yega membership is shown as Beporo. In 1964 the Yega were dispersed throughout their territory in 17 localities varying in size from 30 houses to single homesteads.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa bosvo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

11: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23 Yega

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dalrymple is now being prepared for publication in this Bulletin.

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

472 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogeren who was not himself an Orokaiva man. He was born about 1910 in Bako village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kavamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo after the invasion was repulsed, he did not remain long before [443] returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [871] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

This is a study of twelve Orokaiva entrepreneurs who have engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

Each subject will be signified by an alphabetic letter according to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

Group I comprises four traders who were not operating their stores at the time of the survey. Group II comprises another four whose stores had an average monthly turnover of less than $50.00. Group III comprises those with a turnover in excess of $50 a month.

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[1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
[726] re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
area of forest and planted shade trees and
657 young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
village, many decided to move inland; this
245 was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [559] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepa village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is 177 more often Popondetta. Another difference is that whereas Sivepa, 995

well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

The second type of organisation is that brought about by the Australian government's insistence on the planting of village quota's of rubber and coconut. Here, as I explained, an undivided area was planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. *There is no traditional precedent for this kind of arrangement.*

The third type is that described on the preceding page. For this system, the selected plot of land is divided into sections called tane. This is common procedure also when subsistence crops are planted. Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepe (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepe for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

In the neighbouring village of Sasembata, where a rubber cooperative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepe men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

Cooperative principles were also not infrequently followed in the setting up of trade stores. Rinaldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

474 plus other amounts of unknown size--enough for the projected establish-
443 ment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuny clan, to which Rimoldi refers, were lost along with the Jegase savings.

454 In 1966, two group savings accounts were in operation. People
621 had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

471 The only cooperative effort known to me at Inonda was a regular
439 arrangement by which vegetables grown at Inonda were carted to the Embi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affina.

571 Finally, a notable aspect of social organisation in the post-
[554] eruption period is the emergence of leaders whose authority rests on
[177] two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted)
654 but only to recognise them as an effective source of compulsion. The
571 people of Sivepe, as well as Hohorita were very much aware that the position of the councillors and committees, successors of the village
623 constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

454 (d) Monetary and other assets

Table 4:12 shows that the monetary assets of the village in November 1964 amounted to $166.70, or $10.40 per adult resident. In contrast with Sivepe, most (67 per cent) was invested in savings bank accounts and almost all the rest was held in cash. Only two men owned shares although householder 23 intended to buy some if those of either Oro Ltd or OCGS proved their value.

Table 4:12

Inonda: monetary assets of households, November 1964
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Total
16	12.95	16.18	10.00	-	39.13
17	3.90	-	-	-	3.90
18	0.80	-	-	-	0.80
19	-	-	-	-	-
20	1.50	36.00	-	10.00	47.50
21	3.00	20.00	-	-	23.00
23	1.07	20.00	-	-	21.07
24	11.80	19.50	-	-	31.30
Total	35.02	111.68	10.00	10.00	166.70

438 [444] In October 1963, the head of household 23 established a trade store, deriving most of his supplies on credit from Oro Ltd's wholesale store in Popondetta. His stock included tinned foodstuffs, rice, biscuits, sugar, salt, tea, soft drinks, chewing gum, cigarettes, trade tobacco, laundry soap, matches, kerosene, torch batteries, clothing, razor blades and playing cards. In addition, he obtained some goods from Chinese-owned stores where the wholesale prices, particularly for rice, were considerably lower. Store customers included people from Inonda and neighbouring villages and passers-by on the main road. Business was best between February and April 1964 when construction gangs were improving this road. By July, most of the villagers had moved to the new site and a new, better-stocked store was opened about two and a half miles away, and sales of the Inonda store began to decline. When the store-owner moved to the new site, he did not begin rebuilding the store until late in December and kept only a few goods (biscuits, tobacco and kerosene) in his house.

511 177 (e) Other household property

Table 4:13 shows the inventories of household property acquired directly or indirectly from the cash sector of the economy, including

[TEXT CONTINUED ON PAGE 63]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 11:13

Inonda: cash income and expenditure over 47 weeks, by household ($)

Household	Income	Expenditure	Net change to cash balances
16	78.62	73.84	4.78
17	26.38	24.20	2.18
18	4.30	4.90	-0.60
19	1.70	2.50	-0.80
20	66.94	64.12	2.82
21	48.60	41.56	7.04
22*	10.60	14.64	-4.04
23	235.42	230.38	5.04
24	76.90	20.36	56.54
Total	549.46	476.50	72.96
Mean per household	61.06	52.94	8.12

* Figures for February 1964 to May 1964 only.

is also highest. Income and expenditure by household 23 related to the trade store are not included in these figures. During the period, income from the store amounted to $185.20 and expenditure on supplies, at wholesale prices, to $177.58; most of this expenditure was for goods purchased on credit in the first few months of operation.

The trade store began operating on 25 October 1963. Up to 3 January 1965, total payments for supplies were $264.50 and total income from sales was $368.78, giving a gross profit of $104.28.[1] Deduction of $6 for a trading licence yields a profit of $98.28, at a rate of $7.02 per month. This rate is little more than half that earned through casual labour, but the returns per hour are very much higher (see Table 13.2), since operation of the store did not consume a very large proportion of the working day (except for journeys to Popondetta to collect supplies). Over the survey period, the average time spent daily on the store was little over one hour. The owner thus had considerable time available for other tasks, which is not true of those engaged in wage labour. Judging by the comments of the managing director of Oro Limited,[2] he is quite successful by the standards of Orokaiva-owned stores. For a period, early in 1964,

[1] Stocks remaining at 3 January 1965 were small and, in the researcher's opinion, almost worthless. They have, therefore, been written off for the purposes of this account.

[2] Personal communication.

444 it was not only the closest store for some 100 people, but it was also regularly patronised by passers-by and labourers on the main road.[1] For this reason, during the first 13 weeks of the survey sales averaged $10.70 a week, but over the whole period, from February 1964 to January 1965, the average was only $4.20.

472 434 The head of household 23 engaged in a number of other profitable entrepreneurial activities during the survey and the income from these is included in Table 11:13. He received $42 for organising the construction of the researchers' house; this sum was immediately used in the purchase of a shotgun. During period III, the same man organised a labour gang of fellow villagers to construct a shelter at the airstrip on contract from the Administration. For this, he received $72, of which he paid $36 to the other six men. At other times during the year, he received $20 for hardwood trees sold to the Administration, $4 for interpreting at polling booths during the House of Assembly elections and $10 from the Electricity Commission for locating steel pipes and oxy-acetylene cylinders abandoned in the grasslands after the war. (Two other men found and carried the pipes to the road at the entrepreneur's suggestion. They received $3 each and he received $8!) In addition to these sources not open to people with less experience and self-confidence, the same man acquired significant sums from sales of meat, coffee and copra and from gambling. Two fellow villagers gave $2 each and another gave coffee worth $3.32 as contributions towards the purchase of his shotgun. The wife's contribution to the household income was comparatively small at $6.90, of which $4 comprised remittances from kinsmen in Port Moresby.

511 About 62 per cent of this household's expenditure was in retail purchases from trade stores - one-third of this figure being represented by the shotgun and the rest mostly by food and clothing. The bulk of the other expenditure was in payments to the villagers who formed the labour gang. Eight dollars was spent on gun and trading licences and $2 on a fine for taking sago leaves without the owner's permission. Only about $12 (5 per cent) was disposed of in gifts to relatives. Overall, income exceeded expenditure by only $5.04, more than $3 below the village mean.

434 Household 24 has the greatest excess of income over expenditure with $56.54. Its gross income was $76.90, of which $32 were remittances from kin working outside the district, $10 was a teacher's pension from the Anglican mission and $10 was a belated payment from the Administration as a share of rice sales by Hohorita village
511 co-operative society in 1949 and 1950. Seventy per cent of the household's expenditure was in trade stores and almost 10 per cent was in casual purchases from hawkers. The surplus cash was not

[1] See p.61.

C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hansu buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

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Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four
472 whose stores had an average monthly turnover of less than $50.00. Group III comprises those with a turnover in excess of $50 a month.

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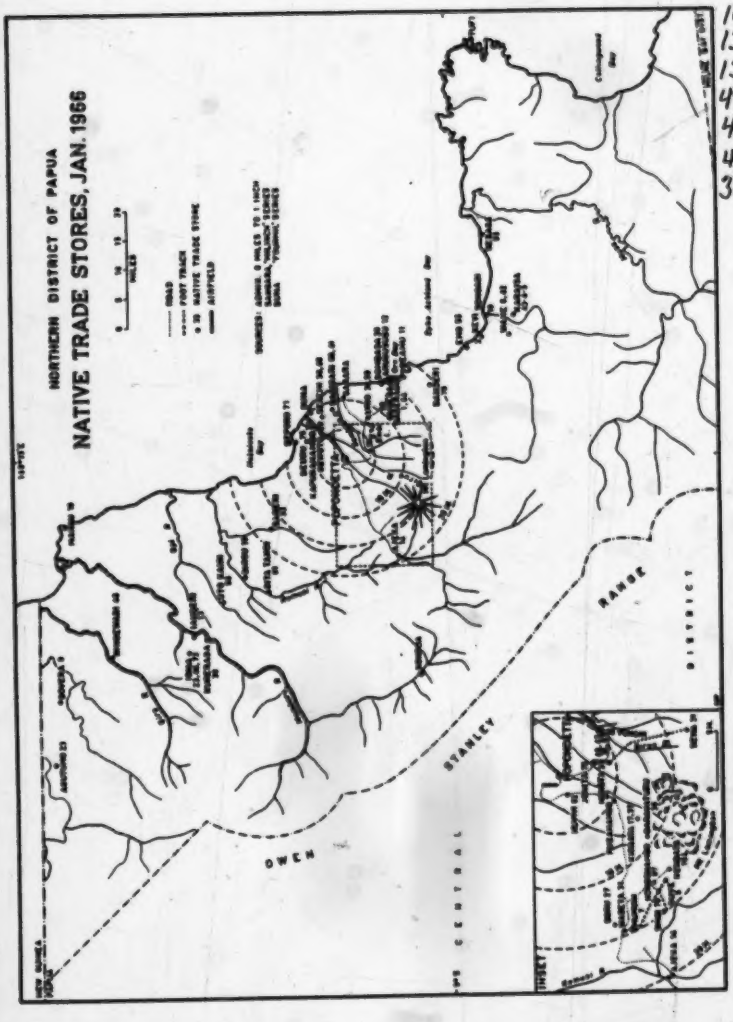
[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.



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444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 B started his store in 1961 with the relatively large capital
472 of $478, of which $300 was his own money, and the remainder his younger brother's. The store was built some distance from his
452 house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had
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[477] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

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[499] value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

444 L began her store with $206; when she is away, it is managed by her father.

463 Trading. Almost all entrepreneurs felt that trading provided,
472 or should have provided, more reward for the effort invested than
444 cash cropping. Even those who had lost by trading wanted to return to it and C, D and E were saving their income from cash crops in order to restock their unsuccessful stores.

Table 14

Months of store's operation

A	2 (closed in Jan. 1964)	E	26	I	3
B	36 (closed in June 1964)	F	19	J	6
C	22 (closed in Sept.1965)	G	6	K	5
D	18 (closed in June 1965)	H	20	L	15
Average	19.5		17.75		7.25

The table above shows that the most successful stores are on average the most recently opened. There is a negative correlation between length of operation and trading success for each store. It may be that there is an optimum period of satisfactory functioning for stores owned by indigenes, after which custom declines. We have no evidence on this point and there are many variables on which the more successful traders differ from the less successful. Other variables, unrelated to the traders themselves, could influence the success of stores. These include the proximity of any other types of stores and the preference of some villagers for patronising co-operative stores rather than individually owned stores (see Crocombe 1967:21). The location of the store in relation to residence of the owner (see page 30), to roads and to other sources of casual custom (e.g. a plantation, a road or other construction project) is also significant. We do not, however, have measured data on these variables.

[412] Tools and equipment. All the entrepreneurs in the sample have many more tools and equipment (current replacement value averages $148.80; range $46.40 to $376.45) than ordinary villagers.[1] There is not, however, any apparent relationship between trading success and value of tools and equipment.

[1] By contrast, average current replacement value of tools and equipment per householder in three villages was $7.58 in Ongoho (Crocombe, unpublished), $18.38 for Sivepe (Rimoldi 1966:25) and $21.06 for Inonda (Crocombe and Hogbin 1963:45).
A [See Category 463--Analyst]

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

Table 18

Loans received

A	$1,500 (land board)	E -	I $200 (from brother-in-law for store)
B	$178 (from younger brother for store)	F -	J -
C	-	G -	K $390 (from brother and share money for store)
D	$1,500 (land board)	H $1,500 (land board)	L -
	75%	25%	50%

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

Table 19

Traders as at January 1966

	Group I	Group II	Group III
Economic variables			
Store turnover per month	-	under $50	over $50
Store outside village	75%	50%	100%
Average no. of economic trees	702	1,800	168
Traditional valuables	$31.51	$46.16	$7.50
Liquid assets	$37.32	$212.00*	$322.66*
Months of operation of store	19.5	17.75	7.25
Tools and equipment	$124.68	$177.75	$143.97
Loans received: land	50%	25%	-
store	25%	-	50%
Social variables			
Age	35.25	41.75	29
Index of education	26.7	3.75	46.7
Years of paid work	11.25	8.75	4
Non-traditional experience	16.75	10.25	11.75
Job: level 1 responsibility	-	25%	75%
level 2 responsibility	75%	50%	-
Community leadership	50%	75%	50%
More than one leadership position	-	50%	25%
No. of co-operating adult male kin	2.25	2.75	2.5
Size of present household	6.5	5.75	5.25
Eldest son	75%	25%	-
Residence village different from village of birth	50%	75%	75%

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* No information on one subject in group.

The most successful traders had the smallest households, but used the help of co-operating kinsmen more than the least successful (whose present households were the largest) and less than group II (whose households were also large). The moderately successful traders depended most on the help of kinsmen, but not nearly so extensively as cash-cropping entrepreneurs previously studied (see Crocombe 1967). [592] [602]

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 472 452 B started his store in 1961 with the relatively large capital of $478, of which $300 was his own money, and the remainder his younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had [474] been selling goods well below cost price. Competition from a [477] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

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657 423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

1 See p. 6.A
A [See Category 241--Analyst]

121 The need for credit at Ombi-Tara where rubber is being planted
452 may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 It is too soon to determine the effects tenure conversion will
423 have on cash cropping and productivity. However, even at this early
182 stage a few observations may be made. The acreage under cash crops
[311] at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy
[464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling
[177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

731 the resettlement villages as needed, but soon replaced by issues of
657 the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

Although there is provision in the Territory for credit assistance
452 for economic development, small growers of cash crops such as are
657 found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

The government provides marketing assistance to New Guinea
245 growers of coffee (mainly indigenous) by a remission of duty on raw
652 coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself
245 purchase coffee but when the Higaturu Local Government Council was
474 formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later
[654] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold
[439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepe coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

The government also assists agriculture through its research
654 activities conducted in various experimental stations in the Territory
242 which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

622 orderly. This man, like the "committee" in Sivepe, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hohorita pursued ends likewise
474 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
952 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 The composition of this committee was interesting: it did not include the councillor, but consisted of the head teacher at Hohorita,
452 and a priest and a public servant both resident in Popondetta. All three belonged to the Hoveopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmowers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store
454 pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

177 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of production.' Houses and clothing, etc., are called consumer's capital because they
511 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

434 [513] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [237] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepa as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A, [See Category 454, pp. 107-108--Analyst]

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Table 6

Income of 12 households

Source	Amount (nearest $)	Total	Household range	Average
Paid work:				
Labouring	58			
Councillor	30	88	0-32	8
Sale of primary produce:				
Vegetables and tree crops, etc.	28			
Coffee	22			
Rubber	30	80	0-22	6
Social obligations:				
Bride price	78			
Gifts from local kin and affines	38			
Gifts from absent kin and affines	44	160	0-42	14
		328		28
Savings at start of year:				
Individual		198	0-62	16
Contributions to joint accounts		60	0-12	5

Table 7

Expenditure by 12 households

Items	Amount (nearest $)	Total	Household range	Average
Domestic:				
Food and household	96			
Clothing	42			
Utensils	28	166	0-40	14
Equipment:				
(including gun and cartridges)	90	90	0-56	8
Social obligations:				
Bride price and feast contributions	36			
Other gifts	52	88	0-20	8
Miscellaneous:				
Shares in O.C.G.S.*	20			
Tax (Council)	34			
Gambling	10			
Church donation	2	66	0-18	6
		410		34
Current savings:				
Individual				
Contributions to joint accounts	60		0-12	5

* Orokaiva Coffee Growers' Society, which sells $10 shares (see Crocombe and Hogbin 1963:95).

464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
[466] District. The young men on the other hand readily leave village life temporarily to take casual work on European plantations in the district where there is now a greater demand for labour. They may leave their wives and children to be provided for in the meantime by the other side of the family or may have them accompany them to the area where they are employed. These absences interrupt the routine of subsistence activities for the family but the possibility of this course of action is left open by local environmental conditions and the virtual independence of the nuclear family as a gardening unit. There is little seasonal variability and this small group is free to resume any phase of garden activities when and where it chooses.

431 Among the 5 able-bodied and active men of the senior group there seems to be no consistent demand for cash which cannot be met by gifts from their kin or affines and they have sought temporary employment only as a means of meeting some immediate financial requirements. With the exception of the salaried local government councillor the older men received 78 per cent of their total year's income of $88 as gifts.

431 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods available locally as well as on kinship obligations. However, not all income is spent in this way and, as Belshaw found in this area (1951:11) there is both some capital available for investment and a willingness to contribute money to funds for this purpose if they can be organized.

The men who have spent most years in paid employment also supplement their income by producing rubber and coffee, sometimes with the assistance of their fathers. However, no one has invested heavily in these crops and they provided only $52 or 15.8 per cent of the sample's income for the year.

245 c. Commercial agriculture

(i) Coffee. Four householders in the sample have individual coffee plots with a total of 503[1] trees on 1 acre of land. One of these plots is a section of a former village or 'company' coffee plot. About the time of the opening of the Higaturu Council in 1956 members of Jegase, Timumu and other groups in Sivepe and Binduta villages participated in the planting of 2 'company'

[1] The agricultural census of 1964 recorded 1,100 trees held by 5 growers in Sivepe as a whole (162 were not yet 6 years old and 491 of the trees had been planted more than 10 years before).

Appendix B

The local co-operative venture

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The 3 clan branches in Sivepe have contributed to 2 joint savings accounts; one is shared by Seho and Jegase members and the other belongs to Timumu clansmen. These accounts were opened as part of a scheme involving several neighbouring villages.

In 1960 an officer of the Department of District Administration had recommended that the people in Sivepe and other villages consider opening savings accounts but they claim it was their own wish to pool their money for savings certificates in order to invest in some form of local amenity for which they had for some time been looking to the local government council.

[m]

The members of 2 clan branches at Hamburata village were the first to collect contributions under the leadership of an ex-medical orderly with 6 years' mission education, and others quickly followed their example. Soon most members of 12 clans in 7 villages, Hamburata, Sasembata, Torogata, Sivepe, Singi, Duve and Garombi had deposited money in a 'clan' account and scattered kinsmen in at least 4 other villages had contributed. Either following advice that a given figure should be the target for the first purchase of savings certificates or following an initial example, each of the 12 clans claimed to have collected £30 at first. Ten of them made a second collection of smaller amounts.

In June 1961 the Seho and Jegase people collected £30 and, as the others had already done, bought savings certificates to mature in 5 years. In July another £26 was collected and deposited but no further money has been collected since then.

Once the money had been collected advice was sought from the District Office as to how it might be invested. The plan eventually formulated was that the savings of all clans should be used to establish a trade store and later to acquire a vehicle to supply it. They were advised to arrange to have only an experienced man to manage the enterprise in its first stages and a Sasembata mission

454 474 teacher who had undertaken part of a co-operatives storeman's course was approached for advice. They decided to attempt to finance training for co-operatives for 2 men, but it was over a year before agreement could be reached on the selection of the trainees, 2 Administration Servants employed in Popondetta.

By this time the teacher had disassociated himself from the scheme and advised the participants to discontinue it on the grounds that they had proved themselves incapable of organizing properly constituted meetings, that the villages had failed to co-operate with one another and that they would not seek the assistance of government officers. He told them that the joint accounts were unworkable and that they would need to buy individual £5 shares if they were to proceed with the scheme.

578 The development of the enterprise up to the date of our survey had been impeded by the failure to agree upon a name, an issue which those involved feel to be fundamental, and by the absence of widely accepted leadership. Meetings have been marked by disputes between local government councillors, teachers and leaders of the various descent groups participating and some decisions arrived at during meetings have not been supported by villagers who did not attend.

However, we have received some indication since leaving Sivepe that more positive co-ordination in the neighbourhood has been achieved in the meantime and concrete plans have been put forward with a view to establishing and operating a co-operative store on the main road to Popondetta (E. Waddell: personal communication). [366] There are at present at least 3 trade stores within easier reach of Sivepe than this.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

241 was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva 443 a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

241 An important factor in the growth of interest in cash cropping 657 has been the implementation of a variety of land tenure and marketing schemes, directed entirely towards the indigenous producers and [425] in part initiated by them. Since 1957 the Higaturu council has been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context 474 of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

●454 In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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[1] See Howlett 1965, for a detailed description.

[2] See Crocombe and Hogbin 1963:89-93.

[3] Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

[4] See Crocombe and Hogbin 1963:94-6.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

435 46 [433] The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

universally small and there is no evidence to suggest that any village producers are employing labour to increase production.[1]

Monetary investment at the village level is low and there are no motor vehicles owned by individuals or groups of subsistence villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

(i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

(ii) Consequences of the disasters. The effects of the war and the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16.

A,[See Category 731, p.16--Analyst]

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [65] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [771] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

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[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 401, pp. 34-37--Analyst]

and the remainder in either shares or savings accounts. Four of the eleven households had no monetary assets at this time, while six had no cash in hand.[1]

Table 4:5

Sivepe: monetary assets of households, January 1965
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Clan savings account	Total
1	24,00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies, the OCGS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCGS declared a dividend of 5 per cent.

Two members of Timumu clan had contributed to a clan savings account which was supported mainly by clansmen in another village, Soroputa. In 1964 it was decided to use the funds to establish a trade store in that village. Even if implemented it is doubtful whether this store would be profitable, since Steamships Trading

[1] Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

[TEXT CONTINUED ON PAGE 91]

614 454 443 Company already operates a trade store with a liquor licence close to the village.

(e) Other household property

511 The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petos (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string [824] bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

[301] * For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

454 (d) Monetary and other assets

Table 4:12 shows that the monetary assets of the village in November 1964 amounted to $166.70, or $10.40 per adult resident. In contrast with Sivepe, most (67 per cent) was invested in savings bank accounts and almost all the rest was held in cash. Only two men owned shares although householder 23 intended to buy some if those of either Oro Ltd or OCGS proved their value.

Table 4:12

Inonda: monetary assets of households, November 1964
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Total
16	12.95	16.18	10.00	-	39.13
17	3.90	-	-	-	3.90
18	0.80	-	-	-	0.80
19	-	-	-	-	-
20	1.50	36.00	-	10.00	47.50
21	3.00	20.00	-	-	23.00
23	1.07	20.00	-	-	21.07
24	11.80	19.50	-	-	31.30
Total	35.02	111.68	10.00	10.00	166.70

438 [444] In October 1963, the head of household 23 established a trade store, deriving most of his supplies on credit from Oro Ltd's wholesale store in Popondetta. His stock included tinned foodstuffs, rice, biscuits, sugar, salt, tea, soft drinks, chewing gum, cigarettes, trade tobacco, laundry soap, matches, kerosene, torch batteries, clothing, razor blades and playing cards. In addition, he obtained some goods from Chinese-owned stores where the wholesale prices, particularly for rice, were considerably lower. Store customers included people from Inonda and neighbouring villages and passers-by on the main road. Business was best between February and April 1964 when construction gangs were improving this road. By July, most of the villagers had moved to the new site and a new, better-stocked store was opened about two and a half miles away, and sales of the Inonda store began to decline. When the store-owner moved to the new site, he did not begin rebuilding the store until late in December and kept only a few goods (biscuits, tobacco and kerosene) in his house.

511 [777] (e) Other household property

Table 4:13 shows the inventories of household property acquired directly or indirectly from the cash sector of the economy, including

[TEXT CONTINUED ON PAGE 63]

484 431 money received from them. As demonstrated in Table 10:15, such people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much the same manner - in effecting what are largely necessary exchanges [436] with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the former to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others, [556] while, of the five households with the highest incomes, the heads of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

● 454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A, [See Category 437, p. 214--Analyst]

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Table 10:10

Sivepe: cash income and expenditure over 46.5 weeks, by household
($)

Household	Income	Expenditure	Net change to cash balances
1	95.99	63.80	32.19
2	78.57	61.00	17.57
3	79.92	60.49	19.43
4*	0.50	-	0.50
5	42.87	36.44	6.43
6	3.50	2.10	1.40
7**	12.50	12.30	0.20
8	11.75	10.62	1.13
9	62.35	60.29	2.06
10	17.50	5.80	11.70
11	30.90	21.83	9.07
12***	2.15	3.68	-1.53
13	58.75	45.49	13.26
14	21.98	16.63	5.35
15	77.08	67.82	9.26
Total	596.31	468.29	128.02
Mean per week:			
All households	0.99	0.78	0.21
Cash croppers	1.52	1.21	0.31
Non-cash croppers	0.36	0.26	0.10

* Surveyed for 6.5 weeks only. ** Surveyed for 27.5 weeks only.
*** Surveyed for 11.5 weeks only.

454 households, were recorded and each followed the receipt of a substantial gift or payment of cash. In the case of the first household, the head received a remittance of $12 in March from a brother and he immediately purchased shares to the value of $10 in Oro Ltd; in December he received another remittance of $10 from his sister's husband and immediately deposited $6 in his savings account, while a week later he received $10 from the husband of another sister and his wife deposited an additional $6 in the savings account. The head of the second household sold coffee to the value of $25.75 in July, depositing $10 of it in a clan savings account. The two households registered the second and fourth highest incomes respectively.

The irregularity of cash income, and therefore the need to hold cash against expected requirements, is undoubtedly an important factor in this apparent failure to accumulate capital. However, this consideration apart, it can be variously interpreted as, one, the inadequacy of income in relation to immediate requirements and demands from the monetary sector, two, a belief that there is no

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Table 10:11

Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
Number of adults	19		16		35	
Man-weeks surveyed	731.5		509.5		1,261.0	
	$	%	$	%	$	%
Sources of income						
Cash crops	174.95	35	15.00	15	189.95	32
OCGS dividend	5.40	1	-	-	5.40	1
Paid employment*	18.90	4	2.25	2	21.15	4
Remittances**	162.50	33	3.80	4	166.30	28
Gifts and payments from Sangara settlers	0.40	-	33.60	33	34.00	6
Subsistence produce: marketing, hawking and casual sales	16.50	3	10.75	11	27.25	5
Sales to Administration	7.80	2	3.45	3	11.25	2
Gifts, loans and payments from villagers	47.05	9	25.40	25	72.45	12
Researchers	62.03	13	6.53	6	68.56	11
Total	495.53	100	100.78	99	596.31	100
Mean per man-week	0.66		0.20		0.47	
Directions of expenditure						
Trade store purchases	189.91	48	38.82	53	228.73	49
Mission (Mothers' Union) purchases	4.35	1	4.10	6	8.45	2
Marketing, hawking and casual sales	18.08	5	2.60	4	20.68	4
Fares, travel	12.00	3	0.50	1	12.50	3
Bank deposits/shares	32.00	8	-	-	32.00	7
Administrative agencies	4.00	1	-	-	4.00	1
Mission offerings	45.09	11	2.60	4	47.69	10
Local Government Council tax	28.00	7	14.00	19	42.00	9
Gifts, loans and payments to villagers	57.90	15	10.34	14	68.24	15
Gambling losses	4.00	1	-	-	4.00	1
Total	395.33	100	72.96	101	468.29	101
Mean per man-week	0.53		0.14		0.37	

* Including local government Councillor's salary.
** Including gifts from wage earners in District.

454 worthwhile way in which they can invest their money or, three, a general inability of the people to handle their money effectively. An analysis of the pattern of expenditure on commodities (which account for 55 per cent of total expenditure) throws some light on the problem since, in this area, the people themselves initiate the act rather than any other institution.

511 Food and stimulants account for 62 per cent of the expenditure on commodities (see Table 10:12). In a predominately subsistence economy such purchases are generally considered to be of a luxury nature and superfluous to basic requirements. This view cannot be substantiated on the basis of the Sivepe evidence. Sixty-three per cent of rice purchases, the single most important item, are made during July, August and September - the latter part of the dry season - when there is a serious shortage of cultivated foods. The consumption of tinned meat and fish compensate, to some extent, for the inadequate protein content in the subsistence diet. Similarly, purchases of subsistence produce are restricted to the locally scarce resources of fish and meat, together with lime which is eaten with areca. Other foodstuffs include biscuits, bread, sugar and salt and only certain of these can be treated as purely luxury purchases. The other important commodities purchased are clothing and household goods (principally cooking utensils). Both are now essential elements in the material culture, having displaced their traditional counterparts.

438 In comparing the purchasing patterns of cash and non-cash croppers 439 (and therefore of high and low income households) a clearer pattern 511 of priorities emerges. Among the latter clothing is the most important commodity purchased, followed by rice, meat and fish, and household goods. Together these account for 72 per cent of all purchases. The range of purchases of cash croppers is more widely distributed, the above commodities accounting for only 50 per cent of the total. Thirteen per cent of their expenditure is on goods used in hunting - cartridges, torches, batteries and bulbs - and it is in this activity particularly that their larger incomes are of direct significance in effecting a technological advance and increasing productivity. Their more substantial purchases of rice can be viewed in a similar light - reducing their need to make sago, so enabling them to continue their cash cropping activities through the dry season.

In general purchasing patterns can be readily understood in terms of the requirements of the village economy. Expenditure is largely restricted to goods which have displaced their traditional counterparts or which compensate for seasonal food shortages and there is little evidence of extravagance.

At Inonda there is a generally expressed preference for wage employment. Compared with most other activities, returns in this are less, but a weekly income is assured. By contrast several hours may be spent in hunting or fishing and marketing with little or no return, and gambling may result in loss. Shortly after the end of the survey four men from Inonda obtained employment in Popondetta, involving a ten-mile journey to work each day. At the normal wage rate for casual labour the returns would be particularly low, while full-time employment would also make it difficult for them to maintain their food gardens. Although some men are able to call on young men from other villages to assist in garden maintenance,[1] this is not always possible and married men often need to leave their jobs to fulfil obligations in the village and embark on a period of intensive garden work.

Capital formation and investment and the utility of money are matters of immediate concern to the villager who participates in the cash economy in order to raise his standard of living. Trade store stocks are restricted to cheap consumer goods which give the purchaser little lasting satisfaction. Earnings are so small that once major commitments such as council taxes are settled, what remains is often sufficient only for minor purchases. Facilities for the effective saving of cash are inadequate; people are unwilling to walk several miles to deposit small sums at a savings bank agency, and money held in the house is immediately available for casual demands. This unsatisfactory situation is an inevitable feature of a predominately subsistence economy. For this reason villagers appear to place some importance on the size of individual cash payments regardless of the labour input involved, for, the greater the sum, the greater the potential utility of the money. It is in this context that the particular significance of remittances to the Sivepe economy can be understood. All important instances of capital saving and investment in the two villages followed receipts of large sums of cash.[2]

The pre-eminence in Sivepe, in terms of size of cash payments, of sales of coffee, pigmeat and remittances is shown in Table 13:3. In spite of the considerable price fluctuations which may occur, coffee is the only one for which there is any degree of reliability of income. The position of pigmeat in terms of size of payment and of returns to labour explains the very considerable temptations evidenced in Sivepe to 'market', while the small payments for rubber, which are a direct function of its low value per unit weight, provide a partial explanation for the failure to develop it further as a cash crop, in spite of its relatively high returns to labour.

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[1] See Crocombe and Hogbin 1963:64.

[2] See pp.204-5 and 256.

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

474 The finances of the store were under continual surveillance
443 both by the local inspector and by the Assistant Registrar of
[657] Co-operatives in Port Moresby to whom regular reports were submitted
[454] by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 The Yega had since the early 1930s been within walking distance
167 of one of the best mission schools in the Northern District, with
[368] a European teacher permanently on the staff. In consequence young
[871] Yega men, who almost without exception left the villages to enter
[797] paid employment, were able to obtain skilled and semi-skilled jobs.
[434] In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 Expansion of membership in the G.V.N.S. Co-operative had almost
443 ceased in 1964: 561 members in 1958 increased to 578 in 1961. As
438 a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

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[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

dents of the village and £7 from non-resident kin. Of the gifts of money £3 came from resident kin and the balance from kin living elsewhere. The feast donations (with the exception of a few shillings) were given by non-residents, some of whom were kin, but most of whom were acquaintances living within a radius of several miles.

Food and household costs constitute the major item of expenditure, but a considerable proportion of the imported food is purchased for funerals, feasts and the entertainment of visitors. Part of the food costs may therefore be considered as costs of meeting social obligations. Within the local community, money is distributed through domestic obligations to provide for visitors and kin, and also through ceremonial (usually related to life crises) when cash and other property are exchanged. Probably the greatest cause for its circulation within the community, however, is gambling. Men who are earning wages usually gamble at least once a week and from observation of several games it seems that each player brings from 3/- to £1/-/- or more. Although the winner for the evening usually gives back a token sum to each loser, he retains most of the money himself. It is understood that gambling is widespread in the area.

Seven of the eight families had some cash in hand (we have shown this as "savings" though it was not necessarily specifically set aside as savings). The councillor looked after his own money, most of which he kept in a savings bank account. Only one other man had a savings account, and in it he held both his own and his son-in-law's money. The son-in-law felt reluctant to ask for money from the account except to meet social obligations. Two half-brothers (one married and the other single) gave most of their money to their father who seems to have made the decisions about expenditure for the extended family as a whole. The two other men in the village were responsible for looking after their own savings. As with non-monetary valuables, cash and bank books are usually cared for by women, but they have little or no say in the purposes for which the money is spent.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

Liquid assets. The three groups of entrepreneurs show a clear progression in average savings, group I averaging $37.32, group II $212.01 and group III $322.66. The details are given in Table 17. 463 472 454

Table 17

Entrepreneurs' liquid assets

Entrepreneur	Savings bank	Settlers Savings Club	Shares in co-operative or cash society	Cash	Total	Average for group
A	30.00	6.00			36.00	
B	5.30		60		65.30	$37.32
C	42.00				42.00	
D	6.00				6.00	
E	300.90			62.00	362.90	
F*	2.65				2.65	$212.01**
G	?				?	
H	320.00		12.50		332.50	
I	224.00		10.00		234.00	
J	?				?	$322.66**
K	536.00				536.00	
L	198.00				198.00	

* Savings were much higher but used on brother's wife's funeral and food to supplement garden produce during drought.

** Averaged for three persons only. G did not have his account book with him and said he did not remember the amount. J is said to have substantial savings but was not home when the data were collected and his brother did not know the extent of his savings.

The loans received by the entrepreneurs are shown in Table 18. As mentioned above in connection with cash-cropping, there is a negative correlation between extensive cash-cropping and success as an entrepreneur. This is further borne out by the fact that the only three entrepreneurs to receive loans of $1,500 from the Land Board have planted the most cash crops and are among the less successful entrepreneurs. 463 472 426 657

The receipt of a loan to assist in the establishment of a store seems to be correlated positively with entrepreneurial success. It must be remembered, however, that none of the most successful stores had been open for more than fifteen months.

383 654 and later to be provided by the people themselves. This idea was taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 434 Tapping is organised on a rotation system, with one man tapping the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 474 [654] [402] [454] In mid 1964 the villagers built a smoke house, a machine house and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was provided on permanent loan by a local planter.

On 27 October 1964 an Ombi-Tara Village Savings Account was opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 [797] While the bush rubber processing project appears to have been a success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of the district. Later in the 1950s a communal cocoa plantation of some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

245 [654]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

individual villagers. The houses were built on a standard pattern, not, as might be thought, to act as warehouses or storehouses or as offices, but as eating places for the co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timbeki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

177 concepts dr[illegible] from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the information, derived from radio broadcasts and speeches by councillors, introduced an acculturative kind of perspective. Its dissemination is being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
[464] in village life. It was earned by men who were away for limited periods working on plantations. Money wages on plantations were, and are, extremely low; wages for agreement labour in 1962 were, for instance, $39 per annum for the first year of which $12 is paid out in monthly installments and the rest at the end of the year. In the second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages are a great deal higher than this; most Sivepe men who were absent on employment worked on urban jobs. At the same time, a regular income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta markets, as there were frequent gluts, prices were low and carrying goods to market was an unduly arduous task.

Money was used largely to buy goods in the luxury rather than
436 the subsistence sphere. Money was essential for payment of taxes
511 and for a minimum of clothes, often acquired cheaply at jumble sales. Otherwise, it was used to buy tobacco, food for feasts, kerosene mainly used for feasting occasions, cartridges for hunting, again for feasts. Among the larger purchases made were radios, pressure lamps, bicycles, tools; all these, however, could never be paid for with current income. One had to depend on special windfalls: a gift from
● 454 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation of corporate saving later; in addition a number of Sivepe men had savings, of the order of $10-$20, sometimes more, hidden away. This money was kept for special occasions, but in addition, the very fact of possessing it was regarded as important. I was once told that Europeans were powerful because they had money; the Orokaiva could get power only if they too possessed savings.

If money was definitely highly valued, it was only to a limited
436 extent regarded as a standard of value. If we accept some model such
437 as was suggested by Salisbury (1962), we may say that the Orokaiva have three spheres of exchange: a subsistence, luxury and ritual sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the Orokaiva tend to weigh the benefits gained by them against their cost in time and unpleasantness and against the benefits that can be gained from other investments. Money is, in general, wanted only if it can

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuny clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Ambi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepe, as well as Hoborita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

622 orderly. This man, like the "committee" in Sivepa, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hohorita pursued ends likewise
479 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
452 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 The composition of this committee was interesting: it did not
452 include the councillor, but consisted of the head teacher at Hohorita, and a priest and a public servant both resident in Popondatta. All three belonged to the Hoveopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmowers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
829 Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
[123] Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total
437 work output of the worker for the period he is on the job. The Orokaiva,
177 however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
177 *l'individualité du donateur.*' It rests on a notion that both worker and

ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

taken as much time as the work itself for some of them.(1) 245

Under ideal conditions each worker could probably have handled one to two acres working mornings only. Such, however, was the government's enthusiasm for instilling regular work habits (or at least regular attendance at the place of work) that no roster system seems to have been worked out to ensure that workers attended for the minimum time necessary to complete their tasks. It is not difficult to understand that, though fear of imprisonment kept the project going, there was little enthusiasm for it in the villages. [466] [461]

(1) Girigirita and Oere were about an hour's walk each way from the coffee block.

Post-war community plantations (1945 - 62)

177 657 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth considerably more than pre-war rates. However the military [466] administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

465 [434] Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

Community rice and cocoa projects

In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally linked to the mission.(1) The main activity of the co-operatives was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

In most instances the village worked as the unit of production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

Conclusions

423 241 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 [614] Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

[461]

241 614 [592] We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A. [See Category 423, pp. 10, 25--Analyst]

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1) 241 614

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it. [726]

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2) 245 249 657 466

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group. 245 657 466 [626] [461] [626]

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951. [249] [731]

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

241 65 [466] [625 [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

423 clansmen or other kin of members of the group. But this takes the
[614] form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among
125 members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A, [See Category 461, p. 28--Analyst]

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
[164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening
[797] was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

461 regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.
**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

527 A tendency for men to regard the season as a time for renewing
574 social contacts became more apparent in the week of the New Year.
484 Although New Year's day was not specifically observed, the men who were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between
[438] villages in the area appears to be usual at this time of the year. Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 In 1944 attempts were made to revive the communal plantations but employment by the American military in the Inonda-Oro Bay area and other work for Allied troops made the people revise their ideas on the value of their labour[1] and resulted in a general lack of enthusiasm for the cash cropping schemes.

731 The eruption of Mt Lamington and the subsequent floods destroyed many villages and gardens and some 5,000 survivors had to be evacuated to refugee camps at Oro Bay and Ilimo. While the majority were resettled within four months, 1,500 people from within a 'danger area' of eight to twelve miles around the active crater were obliged to remain at Ilimo camp until July 1951, or live with clansmen elsewhere, and re-occupied their villages only over a period of years.[2]

731 823 464 Many Orokaiva viewed the disaster as divine punishment, in particular for their lack of co-operation with governmental and mission programmes,[3] and they were reported to deeply appreciate the extensive relief measures, including food, tools and medical services, provided by the Administration. Subsequent Administration reports remark on the willing co-operation of the people in voluntary road construction and their renewed interest in cash cropping.[4] However, once the need for producing food as a relief measure had passed, all staff of the Department of Agriculture were withdrawn from the District. Interest waned and was reported to be 'completely dead' in 1953.[5]

(d) Activities of the Anglican mission

797 Apart from very limited activity by Seventh Day Adventists in the Pongani area and Lutherans among highland labourers at Sangara, the Anglican church is the only mission working in the Popondetta sub-district. It first established itself at the Mambare River in 1900 and activities were gradually extended southward along the coast, but it was not until the 1930s that stations were established among the inland Orokaiva, at Isivita and Sangara. In 1965 the

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[1] Patrol Report, Higaturu, 1543/44; Crocombe 1964:21.

[2] See Rimoldi 1966:45-6 for a fuller description.

[3] Belshaw 1951b:242; Keesing 1952:18. However, some informants viewed it as punishing the Europeans (thirty-four of whom were killed) either for the hangings at Higaturu and Sangara, or for not having provided the Orokaiva with education and access to income.

[4] This was in part an expression of the high prices obtaining during the Korean War.

[5] DDA, Popondetta, DS-17-4-5.

454 considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

439 Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

366 [438] Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, arece nuts and fresh meat) is increasing.

435 The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by 46 [433] the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

[241] In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

241 [464] (f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

[434] [437]

[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

241 universally small and there is no evidence to suggest that any
[464] village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are
no motor vehicles owned by individuals or groups of subsistence
493 villagers,[2] although a number of villages now possess copra driers
and coffee pulping machines.
407

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage
[461] labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

731 (ii) Consequences of the disasters. The effects of the war and
433 the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[439] [2] With the single exception of the indigenous ex-servicemen settlers,
[464] several of whom own vehicles; imported foodstuffs comprise a signif-
[465] icant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 731, p.16--Analyst]

438 are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since
435 their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and
[434] not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

464 (iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva
[461] area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay
[465] with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

[467] Anglican mission stations frequently employ school-leavers as
[465] 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

[491]

[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

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431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

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[438]

525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[762] [2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [651] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [777] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [771] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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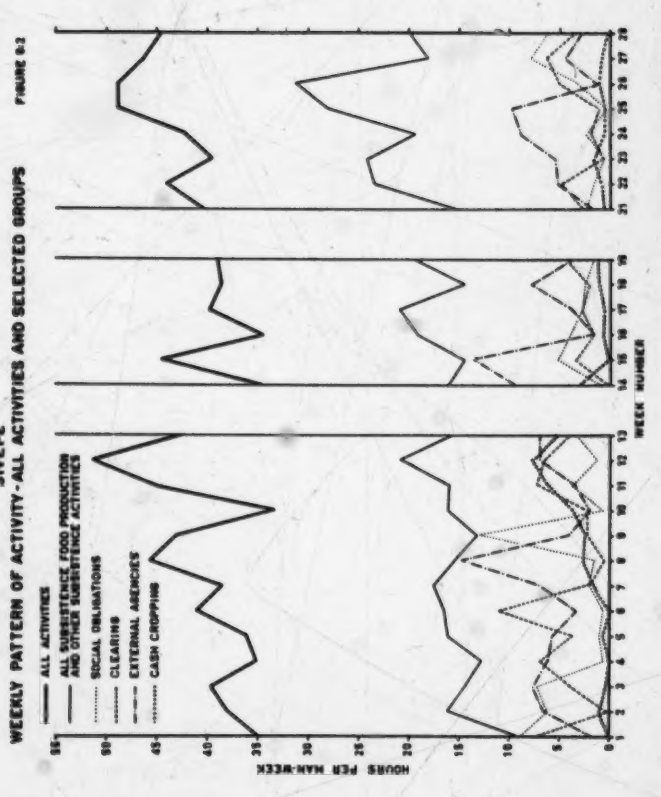

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[46] [262] [251]

[221] New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive [512] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

222 252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro [461] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 3. Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.

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Plate 4. Sivepe - women are responsible for keeping the central area free from weeds and refuse, as part of 'Council work'.

252 gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate [461] food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data [262] gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

423 (iii) Marketing of subsistence produce. This is only a minor
512 activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so [432] low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20. A

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A. [See Category 436, p.20--Analyst]

Another 30 per cent of the time is devoted to traditional dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

(b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCGS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in [484] two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

(iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0723 Orobaiva 0723

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SIVEPE

WEEKLY PATTERN OF ACTIVITY-SELECTED SUBSISTENCE ACTIVITIES

FIGURE 8:3

512 [75] [164] Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433 Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

The organisation of work by households

592 461 Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887] At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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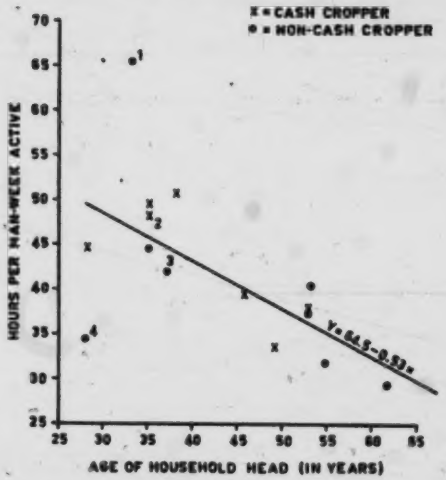
SIVEPE FIGURE 6:6

RELATION BETWEEN ACTIVITY TIME, AGE AND CASH CROPPING STATUS, SHOWING THE LINE OF AVERAGE RELATIONSHIP BETWEEN TIME AND AGE



ANOMALOUS HOUSEHOLDERS:
1 Divorced woman, eldest daughter in full time employment
2 Divorced woman
3 Recent arrival, temporarily linked by marriage
4 Temporarily resident only
1 and 3 left the village part-way through the survey

of available labour time through sickness.[1] All seven households headed by people in the 45+ age group are characterised by a below average activity week. Only one other household is below average (4), a couple who were resident for only 12.3 man-weeks, before

[887]

[1] See Table 6:3. A

A, [See Category 164, p. 79--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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461

leaving in search of employment on a plantation. These people had only recently arrived in the village and their brief term of residence suggests that their subsistence activities could not be considered fully operative.

The least active household, 6, consists of a single man, who is the oldest individual in the sample. While the time he devotes to the basic food producing and related activities (clearing, subsistence gardening, other subsistence food production) closely accords with the mean for the whole sample - 20.0 hours per week, compared with the mean of 19.4 - he devotes little time to other activities. For food preparation he is almost completely dependent on his married daughter living in an adjacent house. He therefore spends virtually no time in household tasks and his is the only household not participating in any cash producing activities.

The households headed by individuals under the age of 45 years are the most active. Furthermore, these households are almost invariably cash cropping ones. Fig.6:6 suggests a linear relationship between the amount of time spent active and the age of household head, although it should be stressed that the sample is small and the correlation coefficient is not particularly high.

There are many reasons for the inter-household variations in levels of activity including individual inclination and circumstances. In all cases a primary concern is to achieve subsistence. Householder 7 spent almost 2.5 times the mean time devoted to clearing as a result of his recent arrival in the village (and temporary linkage by marriage to Timumu clan). His decision to settle in his wife's village was largely motivated by its proximity to land over which he was a primary rightholder and which he had been prevented from exploiting previously by its remoteness from his paternal village. Similarly his wife (householder 8), prior to their separation, assisted him in the substantial task of clearing the site for their new food garden. While these two spent, respectively, 8.9 and 3.2 hours per man-week on clearing, two other households spent less than 1.5 hours per man-week. One was the widowed woman and young family who left to remarry during period I. The other was a somewhat senile widower who succeeded during the survey in attaching his married daughter's household to his own with the object of transferring responsibility for all gardening activities to his daughter's husband who would, in return, inherit all rights to his land.

Although the members of household 4 were, like householder 7, recent arrivals in the village, they spent little time in clearing because, as events subsequently demonstrated, they had no intention of remaining. But, displaced from the rest house by the researchers, they were obliged to erect a small house for themselves, hence the very high figure of 6.4 hours per man-week spent on other subsistence activities.

Table 6:5

Rivers: activity patterns of households over the whole survey period
(hours per man-week)

Household no.	1*	2*	3*	4	5*	6	7	8	9*	10	11	12	13*	14	15*	All households Total	Mean	Cash cropping households Total	Mean	Non-cash cropping households Total	Mean
No. of adults	4	4	2	2	3	1	1	1	2	2	4	2	2	3	2	35		19		16	
No. of man-weeks recorded	92.0	79.3	53.7	12.3	60.0	38.4	17.4	26.6	58.6	41.7	73.4	16.7	48.6	43.0	52.0	713.9		436.2		276.7	
																(hrs)		(hrs)		(hrs)	
Clearing	3.2	3.8	3.0	3.3	1.4	6.3	8.9	3.3	3.3	3.8	3.2	1.3	3.1	3.0	3.3	2,614.2	3.7	1,447.9	3.3	1,166.3	4.2
Subsistence gardening	13.1	13.6	10.9	14.0	9.3	13.5	12.7	16.2	16.2	20.6	9.9	9.3	14.6	14.1	17.4	9,406.3	13.2	5,696.1	13.1	3,710.2	13.4
Other subsistence food production	0.5	0.9	4.2	1.1	3.6	1.2	0.5	1.3	4.3	0.8	2.3	0.5	3.9	2.9	4.2	1,788.3	2.5	1,385.9	3.0	402.4	1.7
Other subsistence activities	1.0	0.5	0.9	0.6	2.0	2.9	11.4	0.3	1.2	4.7	1.1	0.1	1.0	1.9	2.7	1,358.6	1.9	595.9	1.4	762.7	2.8
Cash cropping	2.1	1.3	1.7	0.3	1.0	-	0.1	1.4	4.4	0.3	0.4	0.3	2.9	0.7	2.3	1,119.3	1.6	989.7	2.3	129.6	0.5
Paid work	-	-	-	-	5.3	-	-	-	-	-	2.6	29.8	-	-	2.1	1,133.8	1.6	448.7	1.0	685.1	2.5
Household	3.8	3.3	4.9	2.9	3.3	0.3	-	9.3	7.4	4.3	3.2	8.6	7.8	4.7	6.7	3,795.2	5.3	2,666.6	6.1	1,148.6	4.2
Social obligations	3.0	2.4	4.9	3.3	3.0	1.9	3.3	6.9	3.6	3.9	3.7	3.8	3.7	3.1	3.3	2,433.3	3.4	1,433.9	3.3	999.3	3.6
Sick	0.9	0.8	1.1	-	1.0	0.7	0.1	0.8	0.9	-	0.6	3.6	1.2	0.3	1.3	615.1	0.9	444.2	1.0	170.9	0.6
External agencies	9.8	9.4	8.7	2.7	4.3	3.3	4.6	7.9	6.4	1.7	2.8	6.7	7.3	4.3	6.3	4,134.7	5.8	3,001.2	7.0	1,043.5	3.8
Other	1.0	0.1	2.3	0.1	0.7	-	0.1	0.8	0.3	-	2.0	-	1.0	0.7	0.9	681.7	0.8	388.4	0.9	213.3	0.8
Total	39.7	33.3	44.7	34.2	37.9	29.4	41.0	46.4	48.4	40.1	31.8	63.3	49.1	37.0	50.4	28,978.1	40.6	18,448.3	42.3	10,529.6	38.1

* Cash cropping households.

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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All three households devoting less than ten hours per man-week to subsistence gardening had at least one member in paid work at some stage, suggesting that this latter activity might interfere with basic village tasks.[1] By contrast, increasing involvement in cash cropping does not appear to affect subsistence gardening activities. Household 9, with the heaviest commitment to cash cropping, expended 16.2 hours per man-week on subsistence gardening, well above the average.

The four households most concerned with other subsistence food production (all above 3.8 hours per man-week) are all cash cropping households headed by people under the age of 44 years. Three of them have direct access to shotguns and, with ready cash to buy cartridges, are frequent hunters. Likewise such younger men take the initiative for making sago when food is scarce.

Householder 7 spent 27 per cent of his activity time in other subsistence activities, uniquely in house construction. Having recently arrived in Sivepe he not only had to build a house for his wife and himself but, wishing to ingratiate himself with his affinal kin, spent a substantial amount of time assisting others in their construction work.

[m]

While virtually all households are involved in cash cropping the ones directly exploiting rubber and coffee are, as is to be expected, more heavily committed. Furthermore, the cash cropping households spend more time interacting with the external agencies and their involvement in the external economy is, in effect, broadly based.

With the exception of the old widower (6), the amount of time households devote to fulfilling social obligations varies little from the mean of 3.4 hours per man-week - all appear to be similarly involved in the network of social interaction.

There are, however, very substantial variations in the time spent on household tasks, the range being nil to 9.5 hours per man-week. These variations are a direct expression of differing age and sex compositions and the varying degrees of interdependence between households. So householders 6 and 7 are almost entirely dependent on others for the daily preparation of their food, while the greater time devoted by the cash cropping households (6.1 compared with 4.2 hours per man-week) is connected with the fact that the heads of such households are younger and have many dependent children.

In conclusion, where substantial deviations occur from the 'normal' activity patterns they are generally explicable in terms

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[1] However, paid work does not appear to conflict greatly with other subsistence food production, because of the more irregular nature of the activities.

of individual circumstances rather than degrees of specialisation. While cash cropping households are clearly more active than the others, the substantially greater time they devote to the external sector accounts for the differential and they are no less active within the subsistence sector than their non-cash cropping counterparts. This is clearly demonstrated if household 12 is excluded from the calculations.

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Table 6:6

Sivepe: contrasting activity patterns of cash cropping and non-cash cropping households*
(hours per man-week)

	Subsistence sector		External sector		Total
	'productive'	'non-productive'	'productive'	'non-productive'	
Mean	26.7	3.4	2.5	7.5	40.1
Cash croppers	26.9	3.3	3.3	8.8	42.3
Non-cash croppers	26.7	3.5	1.2	4.9	36.3

* Household 12 excluded.

The division of labour

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(i) By sex. Although there is little variation in length of activity week between the sexes, the men distribute their time more evenly through a broader range than the women who tend to confine their attention to a few specific tasks (see Fig.6:7). Sixty-one per cent of the women's time is devoted to subsistence gardening and household tasks compared with only 29 per cent for the men; however, the latter give substantially more attention to clearing, other subsistence food production and other subsistence activities than the women (11.5, 10.9 and 8.6 per cent respectively compared with 6.7, 1.6 and 1.1 per cent) while retaining subsistence gardening as quantitatively the most important of their grouped activities. Consequently the broad allocation of time between subsistence and external, productive and non-productive activities does not differ substantially for the two sexes; the men spend 69.8 per cent of their time on productive activities and 70.3 per cent on subsistence and the women 76.3 per cent and 77.0 per cent respectively. Rather it is a matter of the women concerning themselves essentially with the daily routine of harvesting and preparing the staple foods for consumption while the men turn to the more irregular, and frequently more arduous tasks such as house construction, hunting and sago-making. In part, no doubt, this pattern reflects the formal authority structure in the household in that the men delegate responsibility for meeting routine needs to the women while they

[TEXT CONTINUED ON PAGE 101]

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Table 6:7

Divorce: the division of labour by sex

	Men	Women
Total hours active	13,934	15,041
Total weeks present	349.7	365.1
Mean activity week	39.8	41.4

Activity	Total hours	Percentage contribution*
Men		**Men**
Rubber - harvest	157.4	100
Recreation	194.7	97
Hunting	1,289.3	93
Preparation of tools and equipment	198.1	91
Church work	182.0	88
Construction	1,160.5	87
Coffee - market	77.9	85
Other crops - plant	41.8	84
Sago-making	319.7	81
Yams - plant	226.4	81
maintain	45.3	79
Purchasing	273.6	77
Taro - plant	1,714.9	75
Social obligations - other	732.7	73
Women		**Women**
Sweet potato/yam - market	51.2	100
Cooking	3,442.8	97
Sweet potato - harvest	900.2	92
Care of the sick	172.5	90
Taro - market	54.3	90
harvest	2,133.4	87
Washing	117.5	75
Both		**Men**
Rubber - market	36.1	66
Fencing	45.7	64
Coffee - harvest	353.1	62
Miscellaneous	260.6	62
Clearing	2,614.7	61
Coffee - maintain	74.5	60
Social obligations - marriage	32.7	60
visiting	873.9	56
Paid work	1,128.8	56
Other crops - harvest	1,109.0	54
Sick - personal	442.6	53
Yam - harvest	412.6	53
Coffee - process	398.4	53
Collecting firewood	234.1	52
Social obligations - mourning	783.9	51
Other crops - market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro - maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

462
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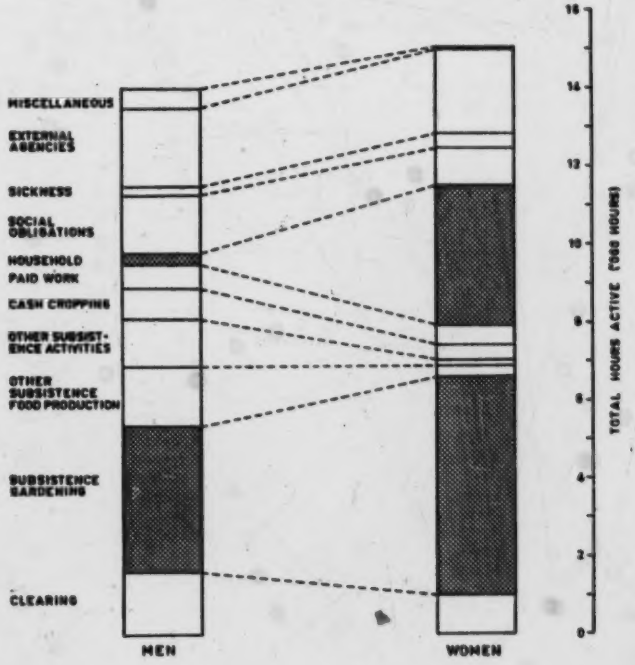
concern themselves with the prediction of future needs, or with the catastrophic aspects of the food cycle, and therefore with activities directed towards fulfilling these.

So, at the level of specific tasks, a clearer division of labour emerges, although even here there are few important activities exclusively the concern of one sex as Table 6:7 demonstrates. While subsistence gardening is largely the women's concern two tasks

SIVEPE
DISTRIBUTION OF TOTAL ACTIVITY TIME BY SEX FIGURE 6:7



predominate - the maintenance and harvesting of taro - which together account for 22.9 per cent of their activity time. Men do most planting of taro and are primarily concerned with the cultivation (including harvesting) of both yams and the minor crops. The labour of harvesting yams is shared with the women, although the men direct the operation since yams are a food crop of considerable social and economic importance, and are stored against future needs. Many of the minor crops are tree crops - areca, coconut, breadfruit, etc. - and the fact that men are more adept at harvesting them largely accounts for their greater involvement.

Clearing, although both arduous and designed to cater for long-term food requirements, is something of an anomaly in that only 61 per cent of the time expended is contributed by men. However, the women's role is subsidiary, the men being responsible only for the initial clearing and burning, and the women cleaning up the debris and piling it around tree stumps to burn again.

The fact that most marketing of subsistence crops is done by women may be viewed as a logical extension of their gardening activities. The few marketed by men - areca, tobacco, etc. - are considered male crops and a woman would not normally harvest them. But contrast, the marketing of cash crops is dominately a male concern, with the women contributing to the harvesting and processing of coffee on account of its very high labour requirements.

The single most time-consuming activity carried out by either sex is cooking, accounting for 22.1 per cent of the women's activity time. Ninety-seven per cent of all cooking is done by women, the only exceptions being the preparation of meat at feasts or for 'marketing'.

With the exception of parties which mainly attract the young men, both sexes are involved to much the same degree with social obligations and likewise there is little distinction according to sex in connection with the external agencies. Finally, care of the sick concerns women more than men only because it is they who take children to the infant welfare clinics.

(ii) By age. While there is not, strictly speaking, any division of labour according to age, there are significant variations in both the general level of activity and allocation of time. These patterns reflect both the customarily defined responsibilities of the several age groups and their diverging interests in the contact situation. Table 6:8 shows the oldest and youngest age groups to be the least active. The reasons for this need no elaboration. The limited involvement of young people in village life gives them time and opportunity for other pursuits: for the 15 to 24 years age group temporary absences accounted for 10.3 per cent of survey time and 6.5 hours per man-week were spent in paid work, but only 7.9 hours in subsistence gardening, the dominant activity of all other age groups.

As age increases, a progressively higher percentage of total time is devoted to productive and to subsistence activities. Commencing at 62.9 per cent and 55.4 per cent respectively in the case of the 15 to 24 years age group, the figures reach 80.8 per cent and 87.2 per cent among those over 55 years. These progressions do not involve an increase in total time devoted to the particular categories. From 25 to 44 years people participate in all forms of activity, while later in life they spend progressively less time on activities not directly concerned with subsistence.

Table 6:8

Sivepa: the division of labour, by age
(hours per week)

Age group	15 to 24	25 to 34	35 to 44	45 to 54	55+
No. and sex of individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total weeks present	105.9	188.0	115.3	252.6	51.1
Subsistence					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	15.0	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.5
Household	3.7	8.7	3.0	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	3.0	1.8
External					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	1.0	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.9	0.2	-
Total	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.6	77.9	80.8
Subsistence time*	55.4	73.8	74.0	79.1	87.2
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepe people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [796] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

Table 6:9

Sivopa: the weekly pattern of activities
(hours per man-day)

Ideal allocation	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Cash crops	Cash crops	Mission work	Subsistence	Council work	Subsistence	Church and rest
Total man-days	716	716	717	716	708	707	712
Clearing	0.8	0.6	0.6	0.6	0.3	0.7	0.1
Subsistence gardening - plant, maintain	1.1	1.1	1.0	1.0	0.6	1.2	0.4
- harvest	0.9	1.0	0.8	0.9	0.8	1.1	0.9
Fishing, hunting, gathering	0.2	0.3	0.3	0.4	0.2	0.4	0.2
Sago-making	<0.1	0.1	0.1	<0.1	-	-	-
Other subsistence activities	0.2	0.2	0.3	0.3	0.3	0.2	0.4
Household	0.6	0.9	0.7	0.8	0.8	0.7	0.8
Social obligations	0.5	0.3	0.2	0.2	0.8	0.7	0.6
Cash cropping	0.2	0.3	0.3	0.2	0.3	0.2	0.1
Paid work	0.3	0.3	0.3	0.2	0.3	0.1	<0.1
Marketing - subsistence crops	-	-	-	0.2	-	-	-
Council work	0.2	<0.1	0.2	0.2	0.4	-	-
Church work	<0.1	-	0.2	-	-	-	-
Church services	0.3	<0.1	0.2	-	0.3	0.2	1.6
Other external agencies	0.3	<0.1	0.3	0.2	0.5	0.2	-
Sickness	<0.1	0.2	0.2	0.1	0.2	<0.1	-
Miscellaneous	0.1	0.1	<0.1	0.2	0.1	-	0.2
Total	6.1	5.8	5.6	5.7	6.0	6.0	5.6

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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 5.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivepa is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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[482]

In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

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One of the stated aims behind Sivepa's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 110]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461
512

Table 6:10

Sivopo: the mean duration and mid-point of activities
(hours)

Activity		Duration	Standard deviation	Time of mid-point	Standard deviation
Clearing		3.2	2.2	1210	1.6
Fencing		3.4	2.0	1055	1.7
Taro	- plant	3.6	2.0	1152	2.4
	maintain	3.6	2.0	1201	1.9
	harvest	2.5	1.4	1253	2.0
	market	6.0	3.2	0930	0.5
Sweet potato	- plant	2.3	1.4	1234	2.9
	maintain	1.9	0.8	1053	0.4
	harvest	2.6	1.3	1253	1.8
	market	6.4	2.1	1041	2.7
Yam	- plant	3.2	2.5	1135	0.9
	maintain	3.8	1.7	1321	2.6
	harvest	4.6	2.4	1218	1.7
	market	3.3	-	1115	-
Minor crops	- plant	1.4	1.3	1404	2.8
	maintain	2.5	2.0	1349	2.6
	harvest	2.0	1.6	1302	2.3
	market	5.5	2.1	1048	2.7
Fishing		3.8	1.5	1201	3.9
Hunting		4.2	2.5	1355	4.3
Gathering		1.8	1.9	1410	3.5
Sago-making		7.7	3.1	1256	1.5
Preparation of tools and equipment		2.2	2.1	1307	3.7
Construction		3.9	2.9	1155	2.9
Coffee	- plant	2.8	0.5	1530	0.8
	maintain	4.1	1.1	1108	0.6
	harvest	4.1	2.2	1221	2.2
	process	2.6	1.6	0941	2.1
	market	9.7	1.2	1215	0.4
Cocoa	- plant	2.0	0.8	0945	2.3
	maintain	0.8	-	-	-
Rubber	- plant	4.3	1.5	1145	-
	harvest	2.4	1.1	0838	1.3
	market	5.1	1.5	1100	0.2
Paid work		8.3	2.8	1149	1.2
Washing		0.7	0.5	1047	2.4
Cooking		1.6	0.9	1516	2.8
Collecting firewood		1.2	0.9	1407	2.8
Social obligations					
	- marriage	2.7	0.4	1343	0.1
	death	7.6	4.4	1305	7.2
	other	4.7	3.2	1505	6.2
	visits	4.8	3.6	1356	3.3
Sick	- personal	2.8	2.5	1040	1.8
	care of	1.9	0.9	1001	1.7
Purchasing		4.7	3.2	1253	2.7
Council work		1.4	2.0	0920	2.7
Meetings		5.1	3.0	1200	2.2
Church work		5.3	1.7	1122	1.0
Church services		3.5	2.4	1001	3.0
Recreation		3.7	2.3	1532	4.2
Other		4.7	3.4	1200	2.7
Researchers		4.6	3.4	1301	2.5

484 Sangara. Finally, movement directly related to the external agencies and sickness is proportionately greater than for all other activities apart from the two exceptions noted. In general, travelling times appear to reflect a significant expansion in the village oecumene following contact. Further, in those activities specifically related to this expansion there is a lower level of efficiency in so far as travelling is concerned, since there has been no parallel development in the modes of travel.

461 Detailed time and motion studies of a limited number of activities were conducted in order to acquire a better understanding of the utilisation of activity time in areas other than travelling and of the level of productivity within the framework of the existing economic system and technology. A total of 28 man-instances were surveyed, the activities comprising clearing, several subsistence gardening tasks, sago-making, house construction and coffee harvesting. The results are presented in Table 6:12. The main feature they demonstrate is that the various productive tasks (Main, Ancillary and Other) carried out within the duration of a single activity amount to only 49.3 per cent of the total time devoted to that activity; and 27.4 per cent of the total time is accounted for by resting and eating meals. The time spent in resting increases with the intensity of effort and exceeds 50 per cent in sago-making, productive effort being proportionately reduced. However, in this case the increased leisure time is compensated for by a large work group so that it is possible to maintain a high rate of sago production.

[462] While acknowledging the small number of observations, tentative patterns may be discerned within the sample according to sex, age and cash cropping status. Men concentrate more on the main task than women, as the latter also are responsible for preparing any food during the course of the work, washing the children and doing such minor tasks as foraging for greens; the 25 to 34 years age group allocates its time in a more productive manner than any of the others, spending 56.3 per cent on the main task and only 16.1 per cent on resting and meals; while cash croppers appear to use their activity time more productively than non-cash croppers. The cash croppers spend 64.9 per cent of activity time on the various productive tasks and only 17 per cent in leisure compared with 36.3 per cent and 36 per cent respectively for non-cash croppers. This clear distinction is in part a function of the frequency of sago-making by non-cash croppers, but if this activity is excluded the figures for cash croppers become 64.2 per cent and 15.5 per cent respectively, and for non-cash croppers 47.3 per cent and 23.9 per cent respectively; thus the distinction, if somewhat modified, persists. Furthermore, it must be recognised that some cash croppers at least, with their higher cash incomes, have less need to make sago during the dry season since they can supplement their diet with storebought foods.

Table 6:12

Sivopa: the allocation of time within activities.
A detailed analysis of twenty-eight occasions covering nineteen individuals and a breakdown according to age, sex and cash cropping status
(minutes and per cent)

				Travel	Rest and meals	Main task	Ancillary tasks	Other tasks	Cooking	Washing	Total
Whole sample		(28)*	Mean duration	42	72	102	15	14	17	3	265
			Per cent	15.8	27.4	38.5	5.7	5.1	6.3	1.2	100
SEX	Males	(14)	Mean duration	41	74	118	26	12	-	-	271
			Per cent	15.1	27.4	43.5	9.5	4.3	-	0.1	99.9
	Females	(14)	Mean duration	42	70	85	4	15	33	6	255
			Per cent	16.5	27.4	33.2	1.6	5.9	13.0	2.4	100
	Cash cropper	(16)	Mean duration	32	36	106	14	16	5	2	211
			Per cent	15.1	17.0	50.6	6.5	7.8	2.3	0.8	100.1
	Non-cash cropper	(12)	Mean duration	55	121	96	17	10	33	6	338
			Per cent	16.4	36.0	28.4	5.0	2.9	9.7	1.6	100
AGE GROUP	15 to 24	(2)	Mean duration	21	181	49	12	-	126	28	417
			Per cent	5.0	43.5	11.7	2.9	-	30.2	6.8	100.1
	25 to 34	(8)	Mean duration	24	29	101	1	12	10	3	180
			Per cent	13.4	16.1	56.3	0.6	6.6	5.3	1.7	100
	35 to 44	(8)	Mean duration	33	53	132	36	1	6	-	261
			Per cent	12.6	20.3	50.7	13.8	-	2.2	-	99.6
	45 to 54	(9)	Mean duration	72	69	99	10	31	10	1	292
			Per cent	24.5	23.6	34.0	3.5	10.6	3.6	-	99.8
	55+	(1)	Mean duration	30	390	-	10	-	-	-	430
			Per cent	7.0	90.7	-	2.3	-	-	-	100

* Indicates number of man-instances observed.

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461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait [592] is clearly reflected in their work patterns. The household, comprising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]
Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site, [476] and as such they are normally seen to comprise less than two adults. The main exceptions are activities where collaboration is specifically

[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 115]

Table 6:13

Sivepe: the mean size of work groups in productive activities* 461

Activity			Mean no. of individuals in work group
Clearing			1.7
Subsistence gardening:	Fencing		1.8
	Taro	- plant	1.4
		maintain	1.4
		harvest	1.3
		market	4.3
	Sweet potato	- plant	1.0
		maintain	1.0
		harvest	1.1
		market	2.6
	Yam	- plant	1.5
		maintain	1.2
		harvest	2.5
		market	1.0
	Minor crops	- plant	1.0
		maintain	1.2
		harvest	1.3
		market	1.6
Other subsistence food production:			
	Fishing		2.7
	Hunting		1.8
	Gathering		1.0
	Sago-making		5.3
Other subsistence activities:			
	Preparation of tools and equipment		1.0
	Construction		2.4
Household:	Collecting firewood		1.1
Cash cropping:	Coffee	- plant	1.0
		maintain	1.3
		harvest	1.9
		process	2.9
		market	1.0
	Rubber	- harvest	1.1
		market	1.9

* Computed from work groups initiated by sample members only and disregarding all those tasks specifically designated as 'communal'.

[461] [476] required, in particular sago-making and house construction.[1] In the case of the former about eighty man-hours per day should be expended on a mature tree if the sago is to be produced before spoiling,[2] while in the latter assistance is specifically needed to erect the timber frame and put the roof in place.

Some social significance can probably be ascribed to other activities with a mean size of work group exceeding 2.0 persons. This applies particularly to the preparation of roofing sections and to fishing, both of which have an important recreational component either in the form of conversation or 'picnicking'. In the case of yams, where the mean size of work group is 2.5 persons, the tuber is considered harder to harvest than taro because it develops at a greater depth, and larger quantities are harvested at a single time for storage. However, as with sago-making, an important consideration in rendering assistance is undoubtedly that the service will be reciprocated either immediately or subsequently with a quantity of the foodstuff involved. Both are perceived as 'hard' work and the question of cost-benefit is therefore seriously considered in deciding whether to render assistance. The difficulty experienced in mobilising a sago-making work group when there is no widespread shortage of food is evidence of this.

[462] The large work groups associated with the marketing of the two main subsistence crops, taro and sweet potato (4.3 and 2.6 persons respectively), are to some extent misleading. In virtually all cases the marketing was done at Saiho by women, each selling her own produce. The approach to marketing these crops is very different from that of cash crops - one woman decides she will take some produce to Saiho and a number of others then decide, very much on impulse, to follow suit.

Relatively large work groups are associated with a number of cash cropping activities. This is particularly true of coffee,

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[1] In fact these activities comprise a number of distinct tasks and if we are to be consistent in our categorisation we should therefore speak of 'taro-producing' rather than isolate the several tasks involved. Then, given the type of work allocation and sequence described above, the work groups associated with taro-production approach those of sago-making and house construction. In spite of these apparent inconsistencies in the method of categorisation, the fact remains that taro-producing activities are not necessarily collaborative and they are distributed over an extended period, while collaboration is actively sought (and required) in the other cases and the activities are restricted to a much shorter time span.

[2] If a household decides to extract sago without outside assistance an immature tree is normally felled.

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

[224]

[476] Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

128 The activity patterns of selected individuals

The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 35 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village,

[1] See p.292. A 4

A,[See Category 433, p. 292--Analyst]

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461

Table 6.14 illustrates the main features of the activity patterns of the six individuals. Linton devotes a large amount of time to such minor activities as hunting (81 per cent of other subsistence food production) and construction (84 per cent of other subsistence activities), the latter mainly on improvements and repairs to his house rather than major rebuilding. Mourning accounted for 54 per cent of the 4.3 hours spent on social obligations, an unusually high figure even for older people and a reflection of his allegiance to customary forms of behaviour.[1]

Table 6.14

Siwepe: activity patterns of selected individuals
(hours per man-week)

Name	Cash croppers				Non-cash croppers	
	Linton	Palminus	Gorukari	Olga	Rodney Gill	Umbahapa
No. of weeks present	25.0	24.4	26.7	26.7	22.1	26.6
Percentage of survey days temporarily absent	7.4	9.5	1.1	1.1	17.9	1.5
Subsistence						
i. Productive						
Clearing	4.0	4.3	3.5	2.7	3.0	6.3
Subsistence gardening	13.7	15.3	17.9	18.7	2.5	12.5
Other subsistence food production	8.0	9.1	1.4	0.3	5.2	1.2
Other subsistence activities	5.1	2.3	0.5	0.2	3.1	2.9
Household	0.9	1.0	12.5	13.0	0.4	0.5
ii. Non-productive						
Social obligations	4.3	5.9	3.1	3.1	6.9	1.9
External						
i. Productive						
Cash cropping	3.1	5.9	1.7	1.3	0.4	-
Paid work	4.4	-	-	-	8.6	-
ii. Non-productive						
External agencies	7.2	5.6	6.4	5.9	6.0	3.3
Sickness	0.8	0.9	1.4	0.5	1.3	0.7
Other	1.4	0.7	0.6	-	6.4	-
Total	52.9	51.0	49.0	45.8	43.7	29.4
Percentage of total time spent in						
Productive activities	74	74	76	79	53	80
Subsistence activities	68	74	79	83	48	86

[762]

1 During the year an age-mate from Seho clan committed suicide in Port Moresby and Linton acted as one of the chief mourners.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

512
461

The 7.5 hours spent by Linton in cash-producing activities far exceeds the sample average and the extent of his commercial interests is reflected in his household having the largest monetary assets of the eleven surveyed and the fourth highest cash income;[1] 3.1 hours were devoted to cash cropping, almost exclusively to coffee, and 4.4 hours to paid work. The latter, building the house for Saiho hospital, was confined entirely to period III and so outside the cash cropping season. He, and another member of the sample, had to provide all materials and on completion of the house would be paid $50; however, it was still unfinished at the end of the survey. Opportunities of this type often occur and in spite of the distance to Saiho and the need to supply their own building materials, the informal nature of the contract and being able to reside in the village throughout more than compensate and account for the popularity of the work, particularly outside the cash cropping season.

Linton's concern with cash producing activities is paralleled by his involvement with the external agencies. Over half of the 7.2 hours per week is spent at church services, in maintenance work on the mission station and in helping the Papuan priest with his food gardens. In fact, proportionately, Linton devotes no more time to productive tasks than the sample as a whole does although he was absent from the village on only 7.4 per cent of survey days, each occasion being of short duration.

[177]

Palminus. Like Linton, Palminus is a married man with five children, all at or below school age. A confirmed cash cropper with the largest individual holding of coffee in the sample (246 trees), he is also one of the 'new' generation with a firm liking for non-traditional forms of entertainment, including gambling, guitar music, parties and alcohol. Aged 34 years, he received four years' schooling and has spent a further four and a half years in unskilled and semi-skilled employment in Port Moresby, Kerema and elsewhere in the Northern District.

With a mean activity week of 51.0 hours Palminus is only slightly less busy than Linton. The general pattern in which this time is allocated approximates that of the sample as a whole, with a consistently higher level of activity being recorded in most categories.

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1 See Tables 4:5 and 10:10.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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461
[273]

Although without access to a shotgun, Palminus spends even more time in hunting than Liston (98 per cent of the 9.1 hours devoted to other subsistence food production). Guitar parties account for over half the time spent on social obligations and, while they normally appeal primarily to unattached youths, Palminus is attracted to them by the liquor (including beer, gin, rum and methylated spirits) often on sale.

The time spent in coffee production, 5.9 hours per week, is a particularly high figure when it is considered that this work was confined to little more than one-third of the total survey period. When, during the latter part of the dry season, Palminus had completed harvesting his own coffee he agreed to pick in the garden of a member of Seho clan. Although he did no paid work while resident in the village, over half of the 9.5 per cent of survey days on which he was absent was spent at Sangara constructing a house for a settler, with a view to receiving a cash payment for it at the end.

[562]
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Gorukari. Gorukari is aged 32 years and a married woman with five children, all under the age of 12 years. The two eldest attend Sasembata school, one, a six year old, refuses to go, and the others are below school age, one being still at the breast. Although she received a few months' schooling at Sasembata, her experience of Western culture is slight and in this respect she is typical of the women. Her husband is not unlike Palminus in that he is industrious, interested in cash cropping but not a particularly influential person.

On account of the size of her family and age of her children, Gorukari has a heavy burden of basic subsistence gardening and household tasks and while her eldest daughter, aged 11 years, could be of considerable assistance, regular attendance at school prevents this. In addition, Gorukari's domestic obligations often extend to the care of her husband's father and mother plus two children who reside next door. The father is over 55 years and the mother only a little younger and both are frequently sick.[1]

With a mean activity week of 49.0 hours, 62 per cent of her time is spent on subsistence gardening and household tasks, taro gardening predominating in the former and cooking in the latter. This figure contrasts with the sample mean of 46 per cent of total

[1] He was sick, or absent through sickness, on 30 per cent of potential survey days and she on 26 per cent.

512
461
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time. In effect Gorukari is concerned essentially with producing and preparing for consumption the staple food, taro.

The figure of 49.0 hours per week is somewhat misleading in the case of such a woman where so much time is taken up with care of children and minor household tasks which do not lend themselves to quantitative analysis. In following her movements through a single day it was found that, between rising at 0810 and finishing the evening meal at 1845, Gorukari spent only 1 hour 50 min. actually resting or eating. She was therefore active for a total of 10.8 hours compared with an 'activity' figure of 8.1 hours. From 1845 until 2230, when she retired, she sat and talked with her husband. Assuming this to have been a typical day, a woman such as Gorukari has an activity week of about 75 hours.

Social obligations account for 3.1 hours per week, 55 per cent spent in visiting. Not only is this substantially less than the figures for Linton and Palmimus but it reflects a somewhat different emphasis. While the role of women in ceremonial life is subsidiary to that of the men, they are often responsible for the more informal exchanges which are a characteristic feature of Orokaiva life and, since the society is typically a patrivirilocal one, it is to be expected that the women spend a significant amount of time visiting their kin.

[562]
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Gorukari's primary concern with food gardening and household tasks is expressed in the general distribution of her time. In particular she is more concerned with subsistence activities than the sample in general, these accounting for 79 per cent of her total activity time, while she also places greater stress on productive tasks. These facts are manifested in both the infrequency and short duration of her absences from the village which amount to only 1.1 per cent of potential survey days.

Olga. Olga is aged about 48 years and the wife of the most progressive of the older generation - a man with extensive non-traditional experience. They have eight children, the eldest of whom resides, with his family, next door. The two youngest, girls aged 10 and 14 years, attend Sasembata school and still live at home. All but one of the other children are married and normally reside elsewhere.

Subsistence gardening and household tasks dominate Olga's activities to an even greater extent than they do Gorukari's, accounting for 89 per cent of total time in an activity

512
461 week of 45.8 hours. Likewise 68 per cent of the 18.7 hours spent in subsistence gardening is confined to taro cultivation and 99 per cent of the 13.0 hours on household tasks to cooking. Apart from clearing, in which women are responsible for 'sweeping' up the debris and much of the secondary burning, the time Olga devotes to the other productive subsistence activities is minimal.

Sixty-four per cent of the time spent on social obligations comprises visiting, an even greater proportion than for Gorukari although Olga did not change her place of residence at marriage.[1] One of her married daughters lives in a village about half an hour's walk away and, with her husband away in the police force in Port Moresby, there is a great deal of inter-visiting.

Although without cash crops of his own, Olga's husband worked some coffee belonging to their eldest son during the year, the son in turn confining his cash cropping to the rubber. Olga assisted her husband largely in pulping and drying the parchment and in its subsequent marketing. However, her involvement with the external sector of the economy is largely confined to the external agencies, particularly the church. On account of her household responsibilities she is seldom away from the village for more than a night or two at a time, while the emphasis placed on subsistence activities (83 per cent of her total activity time) results in both her and Gorukari's spending more time on them than either Linton or Palminus, in spite of the latter having longer activity weeks. Finally Olga spends less time on non-productive tasks - only 21 per cent compared with 26 per cent in the case of the two men.

Rodney Gill. Rodney Gill is Gorukari's husband's brother and, at the age of 19 years, the eldest child still residing with his parents. While both parents are often disabled through sickness and rely on the support of Gorukari and her husband, Rodney Gill's behaviour pattern does not suggest any tendency to assume domestic responsibilities. With a mean activity week of 43.7 hours he spends only 40 per cent of his time in subsistence activities and 53 per cent in productive work. Typically, adolescent aspirations are directed to wage employment and many young men leave the village. Of the six males in the 15 to 19 age group at the beginning of the year, one joined DASF at Popondetta

[614]

1 She is a member of Avehu lineage, Jegase clan, and her husband a member of Berekipa lineage of the same clan. Intra-clan marriages are not uncommon, a contributing factor in this instance being that Olga is believed to be descended from a Togahau war captive (Rimoldi: personal communication).

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

517
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competing guitar groups, parties also provide a means of making contact with the opposite sex.

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Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Sasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 6.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

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In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

887
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Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (6.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

461
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Table 7:3

Iqundu: mean time spent per man-week on all activities in each recording period
(hours per man-week)

Group	Activity		Period I	Period II	Period III	Survey
Clearing			2.9	2.0	2.5	2.5
Subsistence gardening	Fencing		0.6	2.3	0.2	0.9
	Taro	- plant	2.4	1.8	2.4	2.3
		maintain	2.1	2.6	2.2	2.2
		harvest	2.9	0.9	1.6	2.1
	Sweet potato	- plant	0.1	0.5	0.5	0.3
		maintain	-	0.2	0.2	0.1
		harvest	0.5	0.8	1.2	0.8
	Yam	- plant	0.2	-	0.3	0.2
		maintain	-	-	0.2	0.1
		harvest	0.1	1.3	-	0.5
	Minor crops	- plant	0.2	0.4	0.5	0.3
		maintain	-	-	0.3	0.1
		harvest	2.0	1.3	1.5	1.7
	Marketing crops and other products		-	0.4	0.7	0.3
	Total		11.2	13.7	11.9	11.7
Other subsistence food production	Fishing		4.5	1.4	4.6	3.8
	Hunting		1.5	2.2	2.5	2.0
	Gathering		0.2	0.9	0.7	0.5
	Soap-making		0.1	3.3	-	1.2
	Total		6.3	7.7	7.8	7.5
Other subsistence activities	Preparation of tools and equipment		1.3	1.3	1.6	1.4
	Construction		1.7	4.8	0.5	2.0
	Total		3.0	6.1	2.0	3.4
Household	Washing		1.2	1.7	1.6	1.4
	Cooking		0.6	0.2	3.9	2.2
	Collecting firewood		0.1	0.4	0.3	0.2
	Total		1.9	2.3	5.7	3.8
Social obligations	Marriage		-	-	-	-
	Death		0.4	-	-	0.2
	Other		3.7	0.3	1.9	2.0
	Visiting		1.4	3.3	2.4	2.0
	Total		5.8	3.7	4.4	4.2
Cash cropping	Coffee	- plant	-	0.2	-	0.1
		maintain	0.3	0.2	0.5	0.3
		harvest	0.2	0.2	-	0.1
		process	0.1	0.1	-	0.1
	Cocoa	- maintain	0.1	-	-	-
	Copra	- maintain	-	-	0.2	-
		harvest	-	0.7	-	0.1
		process	-	0.6	-	0.1
		market	-	-	-	-
	Total		0.6	2.0	0.7	0.8
Paid work			2.4	0.1	2.8	2.0
	Entrepreneurial		0.7	0.6	1.2	0.7
	Total		3.1	0.7	4.0	2.7
Sick	Personal		0.3	0.6	1.1	0.6
	Care of sick		0.7	1.3	1.0	1.0
	Total		1.1	1.9	2.1	1.6
External agencies	Purchasing		0.7	0.7	0.8	0.7
	Council work		1.3	0.7	1.5	1.2
	Meetings		0.6	-	0.1	0.3
	Church work		0.1	-	0.3	0.1
	Church services		1.1	0.6	0.7	0.9
	Total		3.8	2.0	3.4	3.2
Miscellaneous	Recreation		0.5	0.3	0.5	0.5
	Other		1.1	0.9	0.8	1.0
	Researchers		0.1	-	-	0.1
	Total		1.7	1.3	1.4	1.5
Total - all groups			40.6	43.0	48.6	43.5

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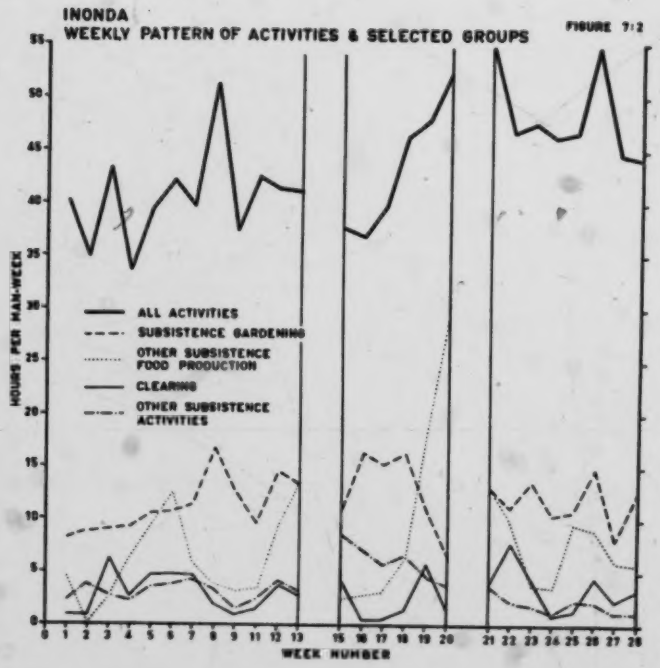

towards the end of this season. Due to the intensive demands on labour for sago-making, men often spend all the daylight hours on this task, so that the average working day is longer than at other times, reaching 7.5 hours. The time spent on sago is at the expense of not only leisure but also of clearing, subsistence gardening, other subsistence activities and involvement with external agencies (particularly council work). Although sago-making is normally restricted to the dry season, in 1964 one household had to resort to sago near the end of the wet season, because the people concerned had spent several months late in 1963 at Saiho hospital and, on returning to Inonda, had no time to clear sufficient gardens to provide food throughout the wet season.

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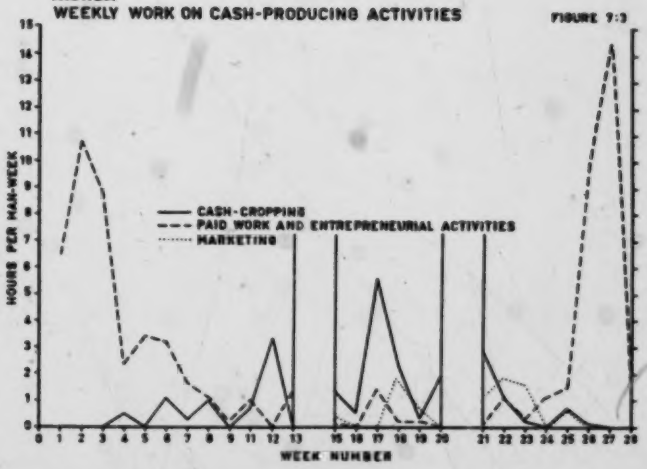
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
leaves beside paths while walking to or from other activities and
224 such gathering may not be recorded. In addition, a considerable
221 amount is gathered by children. Hunting also increases during the
[411] dry season, with the increased number of wild pigs. However, a
significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

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(ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

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The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512
461

Table 7:4

Inonda: adjusted mean weekly activity over survey period
(Adjusted with additional data on household tasks)

Mean number of man-weeks	Hours per man-week	
	Household	Total
14.7	10.1	49.9

(b) The external sector

In total, subsistence activities, including household tasks as adjusted above and excluding construction oriented towards cash income, occupy 34.8 hours per person per week. Cash-producing activities - cash cropping, paid employment, entrepreneurial activities, marketing of game and construction of the copra-drier - together occupy 4.5 hours per person per week. Unlike most of the subsistence activities, not everyone engages in cash-producing activities. Some men did not obtain paid work during the survey period and there is only one man with the experience and confidence to operate as an entrepreneur. Women may assist husbands and kin in cash cropping and sell produce in the market on their own account but they do not engage in paid work (though some had, in the past, worked as domestic servants on a nearby plantation). However, taking the village data as a whole, an individual spends an average of 39.3 hours a week on productive activities in both the subsistence and the monetary sectors.

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(i) Cash cropping. The average time devoted to cash cropping is only 1.0 hours per man-week. Although the survey excluded much of the coffee harvesting and selling season, the figure would be only a little higher if these had been incorporated. Only one household harvested and processed coffee during the survey; if the other two households with mature trees had also done so at the same rate, the overall average time on cash cropping would be raised to 1.4 hours per man-week. The most intensive work was carried out on copra in the dry season, when harvesting and processing occupied a mean 1.3 hours per man-week over that period. Unfortunately, much of this time was wasted. When the drier was finished, it was decided that copra-making should be a communal project and the villagers spent a total of 82.6 hours, most of this in three days, collecting and splitting some 410 coconuts, laying out the flesh and maintaining a fire. On the fifth day, the fire was stoked with husks instead of wood and shells and the copra was spoiled by the thick smoke. The following week the women refused to assist the men for more than a few minutes, since their previous labour had been wasted. The men spent 10.8 hours harvesting more coconuts and assistance from the researchers saved them 1 hour in transporting

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461

the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Notu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Mosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The organisation of work by households

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[461]

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

[470]

There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

[437]

The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

[TEXT CONTINUED ON PAGE 143]

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Table 7:6

Inonda: activity patterns of households (adjusted)[1]

Household	Number of man-weeks	Total hours		Hours per man-week	
		Household tasks	Total	Household tasks	Total
16*	71.4	669.1	3,559.4	9.4	49.8
17*	53.9	571.2	2,574.0	10.6	47.8
18	26.1	388.7	1,384.4	14.9	53.0
19	26.0	22.5	873.7	0.9	33.6
20	51.6	521.0	2,741.1	10.1	53.1
21*	45.4	518.9	2,414.5	11.4	53.2
22	19.1	148.1	976.2	7.8	51.1
23*	49.7	583.3	2,617.2	11.7	52.7
24	38.1	436.7	1,880.1	11.5	49.3
Total	381.4	3,859.5	19,020.6	10.1	49.9
Cash croppers	220.4	2,342.5	11,165.1	10.6	50.7
Non-cash croppers	161.0	1,517.0	7,855.5	9.4	48.8

[1] Table 7:6 shows the relevant parts of Tables 7:3 and 7:5 recalculated taking the adjusted average figure for household tasks into account. For an explanation see p.136.
* Cash cropping households.

in gardening. Although the leading man is one of the most successful hunters, his household spends a little under the average amount of time on these other food-producing activities, and only a small amount of time is devoted to sago-making in comparison with several other households - notably 16, 17 and 21.

The remaining subsistence activities are the preparation of tools and equipment, and construction. As household 22 did not build a house on the new village site it spent little time on this category of activity. In contrast, the men in households 19 and 21 helped the widow build her house, as well as joining the other men in building the copra-drier, and these households have the greatest weekly input of labour into these activities. There is little difference between the levels of the other households.

Only three households spent one or more hours a week on cash cropping. Two of these have mature coffee trees and the third is establishing a new coffee garden. In addition to looking after their own coffee, members of household 16 assisted kinsmen in Ijika and on the settlement block in establishing and maintaining coffee and cocoa trees. The head of this household is the only member of the OCCS in Inonda. While most of the time spent on cash crops by households 16 and 21 was on coffee, much was on the copra project,

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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and this latter accounted for most of the time household 23 devoted to cash cropping. It is interesting that household 17, which owns 107 mature coffee trees, spent less time on them during the survey than household 18, a non-cash cropping household, spent in assisting others with their coffee. The head of household 17 expressed dissatisfaction with his returns from coffee and did not fully harvest the yield of his trees, although the price was double that of the previous year. The small amounts of labour spent in cash cropping by other households result from their assisting owners of coffee trees and collecting and opening coconuts in the communal copra project. Although the inputs of labour by non-cash cropping households are small, even those of households 16 and 21 amount to only 5 per cent of their total activity time. Apart from the widow and widower, these same household spend the lowest proportion (both 3 per cent) of their time in paid work.

All the households spent some time in cash-producing activities, but the widow and widower only assisted others in cash cropping and the heads of households 22 and 24[1] worked only in paid employment. For the Jego'undi man in household 22, paid work was the single most time-consuming activity, exceeding subsistence gardening in spite of his household spending more time in gardening than the average, and it is worth noting that this household entered least into subsistence transactions but disposed of more than average amounts of storebought foods.[2] It seems likely that in 1964 the absences of the household head in paid work and of the whole household on a two-week fishing expedition required unusually intensive work in gardening at other times to ensure subsistence. This household receives no labour assistance from others, whereas the entrepreneur's household (23), which devotes the second highest amount of time weekly to cash-producing activities and the second lowest amount to gardening, receives considerable assistance through labour services[3] and this household is prominent in transactions of subsistence as well as of storebought produce. These two households have the lowest cultivated area per household member in the village. It appears that those who engaged in full-time wage employment for more than two or three consecutive weeks find it difficult to maintain their gardens and therefore meet their traditional obligations in the

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[1] The household head has no rights to land for cash cropping in Inonda. See p.60.

[2] See Tables 11:8 and 11:9.

[3] The difference may be due to the fact that the head of household 23 is the head of the dominant lineage, the most educated, experienced and prestigious man in the village. The head of household 22, on the other hand, was the sole adult member of his lineage and a marginal member of the village. He left Inonda during the survey.

592 exchange network and they must use cash and storebought goods to
512 compensate for this.

[461] Few households differ greatly from the average in the amount of
[462] time they devote to household tasks. The widower, like most men, seldom cooked, whereas in household 18 the widow's son was rarely present and the mean weekly time spent in household tasks is strongly influenced by the time spent in cooking by the widow. Household 16 appears to spend less than the average time since it contains two men as well as the wife's mother, who does not cook as often as her daughter. The small amount of time spent by household 22 is probably due to the fact that the members had comparatively few clothes and so little time was spent in washing.

164 As mentioned, much of the time shown as spent in sickness involves visits to the aid post and particularly to the fortnightly infant welfare clinic. Households containing small children, then, appear to spend most time in sickness. When days, rather than hours of sickness (including periods spent outside the village at hospital or the aid post), are taken into account, it is the households containing people over 45 that are most often sick. Household 24 spends on average 1.3 days per man-week in sickness. In addition to regular fevers, the household head suffered an anal prolapse in August and he and his wife spent the last 19 days of period II at Saiho hospital. Households 18 and 19 have the next highest sickness rates. Household 16 also has a comparatively high rate, largely because of the presence of the wife's aged mother but also because the whole household was sick with influenza during most of the last two weeks of the survey. All of the other households spent less than half a day per week in sickness.

592 There is not much difference between households in the amount of
512 time spent on social obligations. The widow and the wife of the head of household 21 spend rather more time than others in visiting, while the entrepreneur's household, (23), and the widower do little, and the latter was also unable to attend two feasts on account of sickness.

592 In addition to differences in activity patterns between the in-
512 dividual households, certain distinctions appear between cash
461 cropping and non-cash cropping households as groups. As is to be expected, cash cropping households spend more time in planting and tending commercial trees. Non-cash cropping households spend only 0.2 hours per man-week in cash cropping, assisting others and working on the copra project, but even cash croppers spend an average of only 1.5 hours per week on their trees. The two categories devote a similar amount of time to paid work and entrepreneurial activities - primarily because the Jego'undi man's period of work on the settlement block was intensive enough to outweigh the effect of the older non-cash croppers, who did no paid work. On average, people in non-cash cropping households spend 3.5 hours more per

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is [757] without taking the separately-recorded days of sickness into account. In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as irongo as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

Inonda: days spent in sickness per man-month

164

	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 The division of labour: the influence of sex

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

[TEXT CONTINUED ON PAGE 147]

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mainly on Wednesdays on the rare occasions when it is performed; services are naturally on Sundays though there is a lesser concentration on Friday due to the effect of the two Good Friday services and the occurrence of Christmas Day on a Friday in 1964. Council work on cleaning household areas is spread much more over the week than the ideal suggests, but communal cleaning of the village square is usually restricted to Fridays. The ideal of Sunday as a day of rest is not entirely borne out, in reality. The mean duration of activity on Sunday is 5.7 hours, little below the mean for the other days, but the activities pursued tend more towards leisure than on other days. Thus, 1.2 hours are taken up in social obligations, 0.6 hours in church services and 1.1 hours in hunting and fishing; the latter is often associated on Sundays with 'picnics'.

[527]

The 'ideal' pattern excludes many of the village activities, but some of these also are carried out more on certain days than on others. Marketing is restricted to the Popondetta market-days (Wednesdays and Saturdays). The increased emphasis on hunting and fishing on Fridays is designed to provide commodities for sale in the major Saturday market. The incidence of paid work is naturally almost entirely on weekdays since employment of labour is almost exclusively by Europeans; the small amount of weekend work was on the construction contract at the airstrip. As explained, the concentration of hours of sickness on Wednesdays is due to the fortnightly infant welfare clinic at Ijika. Social activities other than visiting and those associated with deaths are now more or less confined to the weekends, often extending from midday or earlier on Saturday to after dawn on Sunday. The only other activity with a notable periodicity is purchasing, this being mainly carried out on Saturdays, either after marketing or as an isolated activity.

The duration of activities

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Table 7:11 shows the mean duration, in hours, of each activity and the standard deviation from the mean. It also shows the mean time of day at which each activity occurs, in terms of the mean mid-point of the period shown in the 'duration' column and the standard deviation from this mean. There is clearly a wide range in the duration of individual activities and in three cases (the weeding of minor crops, entrepreneurial activities and church services) the standard deviation exceeds the mean duration. The mean duration of a session of forest clearance is three hours, but two-thirds of all sessions last between one and five hours.

The mean duration of sessions devoted to specific garden tasks, such as planting or harvesting taro, is comparatively short, since several different tasks are commonly performed during a single visit to a garden. People usually leave for the gardens in early or mid-morning and return in mid-afternoon. With cash crops a whole

[TEXT CONTINUED ON PAGE 153]

461

Table 7:11

Inonda: the mean duration and mid-point of activities
(hours)

Activity		Duration	Standard deviation	Time of mid-point	Standard deviation
Clearing		3.0	2.0	1240	2.2
Fencing		3.5	2.2	1240	3.2
Taro	- plant	2.0	1.2	1230	2.6
	weed	2.1	1.4	1225	2.7
	harvest	1.5	1.1	1219	2.6
Sweet potato	- plant	1,7	1.0	1355	2.6
	weed	1.5	1.1	1353	2.5
	harvest	1.1	0.9	1228	3.0
Yam	- plant	2.0	1.3	1300	2.3
	weed	2.7	2.4	1331	1.0
	harvest	2.2	1.3	1229	2.4
Minor crops	- plant	0.9	0.9	1400	3.1
	weed	0.9	1.1	1342	2.7
	harvest	0.9	0.8	1330	2.6
Fishing		4.8	2.8	1355	2.2
Hunting		4.1	2.9	1331	3.9
Gathering		0.8	0.8	1418	2.6
Sago-making		8.0	2.9	1219	1.2
Preparation of tools and equipment		1.8	1.3	1125	3.4
Construction		2.9	2.3	1200	3.2
Coffee	- plant	2.9	1.6	1041	2.5
	maintain	5.3	2.0	1125	1.2
	harvest	5,0	2.0	1112	1.5
	process	4.5	1.3	1050	1.1
Cocoa	- maintain	4.5	2.6	1313	-
Copra	- maintain	3.7	0.5	1037	0.2
	harvest	2.4	2.1	1105	0.9
	process	1.3	1.2	1406	2.6
	market	4.3	-	1413	-
Marketing other products		5.9	2.4	0955	3.5
Paid work		7.8	3.7	1218	2.3
Entrepreneurial activities		2.9	3.1	1206	2.3
Household	- washing	0.6	0.5	1348	2.8
	cooking	1.8	0.9	1406	3.4
	collecting firewood	0.4	0.2	1525	2.6
Social obligations					
	- marriage	3.3	2.5	1112	4.0
	death	11.3	4.0	0912	-
	other	6.2	4.0	1446	6.7
	visits	4.1	3.2	1336	3.4
Sick	- personal	1.9	1.0	0836	1.3
	care of	3.0	1.6	1155	2.8
Purchasing		3.6	2.2	1237	3.4
Council work		1.0	1.0	1030	3.9
Meetings		4.5	1.7	1142	0.9
Church work		2.1	1.5	0930	1.9
Church services		1.0	1.3	0730	0.8
Recreation		4.4	4.1	1436	3.2
Other		3.1	3.1	1223	3.7
Researchers		3.7	3.6	1205	2.9

Table 7:5

Annular activity patterns of households over the whole survey period
(hours per man-week)

Household no.	16*	17*	18	19	20	21*	22	23*	24	All households Total	All households Mean	Cash cropping households Total	Cash cropping households Mean	Non-cash cropping households Total	Non-cash cropping households Mean
No. of adults	4	3	2	1	3	2	2	2	2	21		11		10	
No. of man-weeks recorded	71.4	53.9	26.1	26.0	51.6	45.6	19.1	49.7	38.1	381.4		220.4		161.0	
										(hrs)		(hrs)		(hrs)	
Clearing	2.2	2.3	2.0	4.8	2.7	2.3	1.9	3.3	4.9	1,107.9	2.9	566.2	2.6	541.7	3.4
Subsistence gardening +	11.7	10.0	16.3	13.3	11.3	8.8	12.2	9.8	16.2	4,479.5	11.7	2,263.0	10.3	2,216.5	13.8
Other subsistence food production	7.9	8.9	4.7	4.6	12.0	8.1	5.4	7.1	4.5	2,869.5	7.5	1,723.8	7.8	1,145.7	7.1
Other subsistence activities	2.7	2.8	3.2	5.9	3.7	5.4	0.8	3.3	2.6	1,292.7	3.4	751.5	3.4	541.2	3.4
Cash cropping	2.3	0.4	0.8	0.2	0.2	2.1	-	1.0	-	365.5	1.0	329.3	1.5	36.2	0.2
Paid work and entrepreneur	1.5	2.6	-	-	2.5	1.4	13.2	5.7	1.8	1,042.6	2.7	591.7	2.7	450.9	2.8
Household	3.8	4.1	4.0	0.9	4.0	4.7	1.0	4.9	4.2	1,439.3	3.8	944.4	4.3	515.1	3.2
Social obligations	4.4	4.2	4.1	2.2	3.6	3.5	4.5	2.7	4.2	1,595.7	4.2	944.6	4.3	651.1	4.0
Sick	2.7	2.4	1.4	0.1	1.5	2.0	-	1.3	0.1	398.5	1.6	475.4	2.2	123.1	0.8
External agencies	3.6	2.9	2.8	1.0	2.7	4.7	1.4	4.8	2.8	1,241.6	3.2	866.6	3.9	377.0	2.3
Other	1.3	1.3	0.8	0.4	2.4	1.4	3.2	1.7	0.7	367.3	1.3	312.5	1.4	254.8	1.6
Total	44.3	41.3	42.1	33.6	46.4	46.4	44.4	45.6	42.1	16,620.3	43.5	9,767.0	44.4	6,853.3	42.6
Mean length of active day**	6.6	6.1	6.7	5.1	6.8	6.7	6.7	6.9	6.6						

* Cash cropping households.
** Excluding days sick.

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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morning or, less frequently, a whole afternoon is devoted to a particular task of cultivation, whether planting, maintaining, harvesting or processing and the mean duration of each of these activities is longer than for subsistence garden tasks.

As described,[1] the longest working sessions are spent on sagó-making: 68 per cent of these sessions last between 5 and 11 hours. Thus, when a sago-palm is being harvested, men have little time for other tasks. Paid work also tends to preclude other activities by occupying the bulk of the daylight hours and the same is largely true of the fulfilment of most social obligations. Although many social occasions, particularly feasts and parties, take place during or continue into the night, the daylight hours beforehand are usually taken up with preparations, including the construction of shelters and the harvesting of food. Hunting and fishing both occupy on average more than four hours at a time. Fishing usually takes place in daylight hours, whereas people hunt mostly at dawn or dusk[2] and hunting does not therefore prevent the performance of daytime activities.

Most of the activities shown in Table 7:11 have a mean mid-point falling between about 11 a.m. and 2 p.m. Activities occurring early in the morning are church services, 'mission' work, visits to the aid post (personal sickness) and visits to Popondetta market.

The journey to work

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Table 7:12 shows the proportion of total time spent on different classes of activity in travelling: part A shows the details for people while resident on the old village site and part B for the new site. Owing to the method of coding for computation, it was not possible to make allowance for the performance of several tasks at one site; where, for instance, a woman visited a garden and spent some time in clearing, some in weeding and some in harvesting and also visited another site on her way home, each period was recorded separately, thus exaggerating total travel time. An attempt was made to reduce the exaggeration by recording separately the occurrence of such duplicated times and these have been subtracted from the total, but not from the grouped activities. Most of these duplications were in clearing and gardening activities. Applying therefore an arbitrary proportion of 70 per cent of the

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[1] See p.133.

[2] This bi-modal distribution for hunting invalidates the mean mid-point of 1331 (1.31 p.m.) hours shown in Table 7:11. To some extent the same is true of cooking, since most cooking is in early morning for breakfast and in late afternoon for dinner.

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Table 7:12

Inonda: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	
	A. Old site	B. New site
Clearing	23	17
Subsistence gardening	45	42
Other subsistence food production	24	22
Other subsistence activities	15	8
Cash cropping	36	19
Paid work and entrepreneurial	27	23
Household	39	19
Social obligations	29	41
Sickness	68	50
External agencies	38	40
Other	62	74
Total	34	32
Corrected total	26	25

total correction of multiple occurrences to the travel time involved in gardening and 12 per cent in clearing, the corrected figures appear as in Table 7:13.

Table 7:13

Inonda: time spent travelling as a percentage of total on task

	A. Old site	B. New site
Clearing	11	3
Subsistence gardening	25	25

In general, the move to the new site was associated with reduced time spent in travelling to work places. This change is particularly significant in the case of garden clearing: the main blocks of gardens cleared during 1964 were all within ten and mostly within five minutes' walk of the new village site, but at least twenty minutes away from the old site. Gardens being cultivated and harvested during 1964 were even further from the old village site; thus, as the newly-cleared gardens approached maturity, the villagers could spend a higher proportion of time in cultivation rather than in walking. On the other hand, the transfer of residence meant a greater walking distance to some of the gardens established in 1963 and being extended during 1964. In addition, closer proximity of the new gardens to the village made frequent brief visits possible, which

partially counteracts the effect of the reduced travelling time. However, all of the most distant gardens were fully harvested by the time the village move was completed.

Other subsistence activities also show a significantly lower proportion of time spent in travelling from the new site compared with the old: this is because almost all construction, including the copra-drier as well as houses, took place at the new village. Some people reduced their travelling times at an early stage by erecting temporary shelters on the new site to live in while building their homes. By the time of period III, the other subsistence activities were restricted to those pursued in the village, such as making mats or string bags. The reduced time spent walking from the new site to work on cash crops results from a concentration on copra production within or adjacent to the new village at the expense of work in the more distant coffee gardens. The established coffee gardens are about twenty minutes' walk from the old site but forty minutes from the new village and the distance involved resulted in a decision to establish new coffee gardens nearer the new village. As described,[1] the first choice was land about twenty-five minutes' walk away, but eventually all but two men decided to utilise the food gardens only five minutes from the village. The other two planted coffee near the Sambogo river where there is plentiful water for pulping and washing the cherries.

The apparent reduction in travelling times for household chores is illusory. The observers were able to cover activities such as cooking far more completely at the new site; the distance to the nearest water supply was not diminished by the move. The distance to the aid post where the infant welfare clinic is held was, however, considerably reduced.

Three categories of activity show an increase in time spent travelling. This reflects more frequent journeys after the move to places further afield, such as Popondetta, Saiho and Kendata, but this increased frequency was not a function of the move itself. During period I, when most people were still resident in the old village, most of the social occasions took place there or in nearby villages whereas, later in the year, feasts were attended in more distant places.

The performance of individual tasks

On a number of occasions, detailed observations were made of the time involved in carrying out various tasks and the results are shown in Table 7:14. Each activity has been divided into different phases: travelling, resting and eating, performance of the main task,

[1] See p.59.

[TEXT CONTINUED ON PAGE 157]

Table 7:14

Iyundu: the allocation of time within certain activities
(minutes and per cent)

Activity*			Travel	Rest and meals	Main task	Ancillary tasks	Other tasks	Cooking	Washing	Total
Clearing	(12)	Mean duration	48	62	109	4	13	5	8	249
		Per cent	19	25	44	2	5	2	3	100
Planting taro	(2)	Mean duration	24	23	38	-	25	-	-	110
		Per cent	22	21	34	-	23	-	-	100
Planting sweet potato	(3)	Mean duration	44	39	37	-	43	-	1	186
		Per cent	23	32	20	-	23	-	-	100
Inspection of garden	(1)	Mean duration	30	-	13	-	17	-	-	60
		Per cent	50	-	22	-	28	-	-	100
Weeding taro	(6)	Mean duration	91	61	93	12	22	8	2	289
		Per cent	32	21	32	4	7	3	1	100
Collecting taro-tops	(1)	Mean duration	15	17	51	-	4	-	-	87
		Per cent	17	19	59	-	5	-	-	100
Collecting taro	(2)	Mean duration	12	1	30	-	12	-	-	55
		Per cent	22	2	55	-	21	-	-	100
Sago-making	(11)	Mean duration	47	150	251	45	3	1	-	497
		Per cent	10	30	50	9	1	-	-	100
Weeding coffee	(2)	Mean duration	49	62	144	-	25	-	3	283
		Per cent	17	22	51	-	9	-	1	100
Cooking	(1)	Mean duration	-	17	30	-	16	-	-	38
		Per cent	-	21	52	-	27	-	-	100
Total	(41)	Mean duration	49	77	138	15	15	3	3	290
		Per cent	17	27	44	5	5	1	1	100
Cash croppers	(28)	Mean duration	43	83	135	18	16	2	3	302
		Per cent	14	28	45	6	5	1	1	100
Non-cash croppers	(13)	Mean duration	61	59	113	9	12	4	3	261
		Per cent	23	23	43	4	4	2	1	100

* Figures in brackets indicate number of observations of activity.

ancillary tasks, other tasks unrelated to the main task, cooking and washing. 461

The activity observed most frequently was forest clearance. Over twelve occasions, the main task occupied 44 per cent of the total time. Due to the intensive and exhausting nature of the work, resting and eating occupies one-quarter of the time. For the same reason, almost one-third of the time spent on sago-making is in resting. Sago-making is the most intensive of all the activities practised by Inonda people: the observed occasions have a mean duration of over eight hours, 50 per cent of which is spent on the main task of producing the starch. Subsistence gardening tasks are in general less intensive than sago-making or clearing: travelling to the place of activity accounts for a higher proportion of the time, and work on the main task and other tasks amounts to less than half the total. Resting, however, accounts for less of the total than it does with sago-making. The planting and harvesting of taro appear to involve the most intensive work in gardening.

Overall, time spent working on all tasks as opposed to time spent resting or travelling appears to be between 50 and 60 per cent of the total. There is no significant difference between cash croppers and non-cash croppers. The latter tend to spend a greater proportion of their time in travelling - perhaps because they are mostly older people. Time saved in travelling by cash croppers seems to be used as much for leisure as for productive work.

The nature and size of work groups

Most activities are carried out by individuals working alone (see Table 7:15), although husband and wife often perform separate tasks in the same garden. Tasks in food gardens are rarely performed jointly: only in harvesting yams and fencing does the mean size of work group reach even 1.5 individuals. However, certain other subsistence activities do involve larger work groups. Of these, sago-making involves the largest mean number of people, since a sago-palm contains enough food to maintain several families for some weeks and it requires intensive labour to extract the starch before it spoils. Thus, those who decide to harvest a palm almost invariably call on others for assistance.[1] Spear-fishing is often undertaken by individuals alone, but groups of men or a number of households may fish together at a particular place. The largest fishing groups occur on the rare occasions (twice during the survey) when large nets are used. At such times people from several villages (Inonda, Hosou and Ijika) may collaborate to spread the nets (one from each village) across the river, to construct temporary dams of 226 476

[1] See p.260. A A

[TEXT CONTINUED ON PAGE 157]

A,[See Category 47%, p.280--Analyst]

Table 7:15

Inonda: the mean size of work groups in productive activities

Activity		Mean no. of individuals in work group
Clearing		1.4
Subsistence gardening	Fencing	1.6
	Taro - plant	1.3
	weed	1.2
	harvest	1.1
	Sweet potato - plant	1.2
	weed	1.0
	harvest	1.1
	Yam - plant	1.1
	weed	1.0
	harvest	1.5
	Minor crops - plant	1.0
	weed	1.1
	harvest	1.2
Other subsistence food production	Fishing	2.8
	Hunting	1.4
	Gathering	1.2
	Sago-making	3.7
Other subsistence activities	Preparation of tools and equipment	1.1
	Construction	2.5
Household	Collecting firewood	1.1
Cash cropping	Coffee - plant	1.5
	maintain	2.0
	harvest	2.3
	process	1.7
	Cocoa - maintain	1.7
	Coconuts for copra - maintain	5.0
	harvest	7.1
	process	3.8
	market	1.0
Marketing of other products		1.8

branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the houseowner alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

Iemba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Iemba was absent for 85 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Habema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

Iemba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold sipere (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. A closely related activity is church attendance, which occupies over an hour [796] a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

461 infant children, partly because he suffered from a leg ulcer for some weeks, but also
512 partly because of the social aspect of such visits.

In all, productive tasks account for 32 hours, or 65 per cent of the total for the week, and two-thirds of this amount is spent in activities in the subsistence sector. Of the weekly total of 49.5 hours, 11.3 hours or 23 per cent are related to the monetary sector and external agencies such as the mission.

472 Lawrence. Aged 35, Lawrence is the leading man and entrepreneur. He is married
[159] and has four children, the eldest being a boy of twelve. Although he only reached standard IV at the mission school, he became a mission teacher and spent four of his five and a half years in this occupation in New Britain. He subsequently spent periods while resident in the village as a labourer and carpenter's assistant and served for two years as elected local government councillor for the villages of Inonda, Hohota, Mosou, Ajoro and Sewa. Lawrence acquired 230 coffee trees from his classificatory father and has rights to over 100 mature coconut palms. In 1963, he opened the trade store in the village. In November 1964 he had a total cultivated area of 1.23 acres, of which 0.9 acres were under taro. Unlike most other households, he has no sweet potato garden and only a token number of yam vines, cultivating banana, corn and Xanthosoma instead as subsidiary crops.[1] His household has a lower area of food garden per member than all but one other household and he spends less time in subsistence gardening than all the six selected individuals apart from Semba.[2] Like most household heads, he is rarely absent from the village. During the survey he spent two days at a feast which almost everyone in the village attended, two days visiting his wife's father in hospital, two in Port Moresby with the researchers, one on work for the Administration during the national elections and one caring for his sick daughter. In addition, he was inactive through sickness - mainly influenza - for nine days.

Through a combination of several factors, including his position as senior resident member of the Andiriha clan, and the knowledge and experience gained during his periods as teacher and councillor, Lawrence is developing his entrepreneurial skills towards the

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1 The same pattern was evident for this household in 1962 (G. Hughin: personal communication).

2 However, Lawrence's household is above average in terms of cultivated area per able-bodied person.

472 achievement of several ambitions, including the acquisition of a carpenter-built house. He spends more time on cash-producing activities than any other villager and is the recognised spokesman in all village-level contacts with the external agencies. Through his experience he was able to win and fulfil the construction contract at the airstrip, as well as arranging for the sale of hardwood trees to the Administration, which others could, but did not do. Half of the time spent on entrepreneurial activities is on the trade store and the rest mainly on the contract. As will be shown in Chapter 12, these activities are more rewarding than cash cropping, and the entrepreneur spends less than 0.5 hours a week on his coffee holding and 1.0 hour a week on copra. Paid work and the other main source of cash, marketing, account for only 1 hour a week. Altogether, involvement with the monetary sector and external agencies occupies about 19 hours a week, or 37 per cent of the total - a higher proportion than for any other villager.

[512] [461]

461 The most time-consuming activity after entrepreneurial activities is hunting, although prior to his purchase of a shotgun in July Lawrence spent very little time this way. This and other food-producing activities occupy as much time as paid work and entrepreneurial activities and double the amount spent on subsistence gardening. Productive activities in both sectors account for almost 42 hours, 80 per cent of the weekly total.

It is clear that for the entrepreneur cash-producing activities have the highest priority once subsistence is assured. In this connection, it is noteworthy that during the dry season, the intensive labour by all the men on construction of the copra-drier took precedence over other activities, but when a pig invaded his garden Lawrence spent two days in fencing and only then resumed construction of the drier.

512 [527] [431] Marjorie. This woman is aged 21 and is married to Embogi's eldest son, who began establishing a coffee garden during the survey. They have one son, and held a party to mark his first birthday in March. Marjorie was born in Hohorita village, as were four other Isunda residents, and she was educated to standard V. Her father's brother is a teacher at Popondetta mission school, where several other relatives also work and she spent a considerable amount of time visiting these and other kin, usually taking gifts of garden produce and receiving in return storebought foods and cash. In addition to the average 2.7 hours a week spent in this way, she was absent for 13 days on visits and for another 6 days on mourning and funeral obligations when her father and her husband's mother's brother died within a week of each other. Her frequent visits and gifts to her kin were

[TEXT CONTINUED ON PAGE 164]

Table 7:16

Income: activity patterns of selected individuals
(hours per man-week)

Name		Cash croppers			Non-cash croppers		
		Isoaba	Lawrence	Marjorie	Poulus	Mamoko	Subogi
No. of weeks present		13.9	24.8	22.3	25.1	26.0	20.6
Subsistence							
i. Productive							
Clearing		1.6	4.1	0.9	3.3	4.8	1.9
Fencing		0.3	1.8	0.2	0.7	3.4	0.9
Subsistence gardening	- plant	2.5	2.2	0.8	3.6	5.5	2.9
	maintain	0.7	0.6	2.3	2.7	2.9	4.7
	harvest	1.8	1.0	0.5	1.3	1.8	10.7
Subsistence produce	- market	0.9	0.4	-	0.8	-	-
Other food production		13.6	11.3	5.2	16.9	4.6	2.2
Other subsistence activities		0.9	3.3	2.9	5.8	3.9	3.4
Household		1.2	1.5	7.8	1.2	0.8	4.7
ii. Non-productive							
Social obligations		7.5	2.9	5.3	3.3	2.3	4.1
External							
i. Productive							
Cash cropping	- plant	-	-	0.4	-	-	-
	maintain	1.5	0.6	0.4	-	-	0.5
	harvest	0.8	0.2	0.4	0.1	0.1	0.2
	process	0.2	0.4	0.2	0.2	0.1	-
	sell	-	0.2	-	-	-	-
Paid work and entrepreneurial activities		3.9	11.3	-	3.1	-	-
Purchasing		2.1	2.3	-	1.8	-	-
ii. Non-productive							
External agencies		1.9	3.5	4.6	0.9	1.1	3.0
Sickness		3.2	0.7	2.5	0.8	0.1	0.9
Other		4.9	3.0	1.2	4.2	0.4	0.2
Total		49.5	51.7	41.6	52.7	33.8	40.3
Percentage of total time spent in							
Productive activities		65	80	67	82	88	80

461 512

criticised by her husband and by others, particularly when her husband's mother was sick at the aid post and he was left with no close relative to perform household tasks. Social obligations and other generally non-productive activities account for 33 per cent of the total time that Marjorie spends on her activities, compared with 20 per cent for the village as a whole, and the mean length of her working week was less than 42 hours compared with the village average of almost 49 hours. Apart from household tasks, the most important productive activity is harvesting of subsistence crops. Over half of this time is spent on taro and the rest on sweet potato, yams and minor crops. The other aspects of cultivation and clearing bring the total time on subsistence gardening to almost 11 hours a week; only taro receives any maintenance. Fishing - usually with a small net, in contrast with the spears used by men - is the most time-consuming of the other food-producing activities, although she also assists her husband in sago-making. Other subsistence activities are restricted almost entirely to making string bags and pandanus-leaf sleeping-mats.

The average weekly time Marjorie devoted to cash cropping equals that of the entrepreneur. She helped her husband establish a coffee garden and worked with the other villagers making copra. However, the time she spends in cash cropping is less than that spent in other activities related to external agencies. Of such activities, over one-third is on council work and almost one-third on meetings of the Hohota Women's Club; the rest is mostly on church services, since she often goes to the Ijika services held by close kin of hers. In total, these activities and cash cropping account for 14 per cent of her activity time.

Although Marjorie invests sufficient time to maintain the household's gardens, it seems clear from the frequency of her contacts with her consanguineal kin in other villages and from the comparatively low proportion of her time devoted to productive labour that she is less oriented towards her village of residence than are the other wives, all but one of whom also originate from other villages.

Paulus. The younger of Mancho's two sons, Paulus is aged 25, is married to the sister of the leading man's wife and has two sons (a third having died a few months before the survey began). He was educated only to standard I. Subsequently two and a half years were spent working as a surveyor's assistant in Port Moresby and some months as a labourer (and briefly as a foreman) on the roads near the village. He has no cash crop

512
[461] holdings - his father's coffee plantation of over 100 trees was given to the eldest son - but intends to plant both coconuts and coffee. He sees cultivation of cash crops as preferable to working away from the village since the former guarantee a continuing minimum income, but he believes that paid employment while resident in the village is the best source of cash. After the end of the survey Paulus, Lawrence and two others obtained work in Popondetta, returning home each night. Despite his lack of formal education and holdings of cash crops, Paulus is generally recognised as second in status to the leading man, and when the leader refused to be nominated for re-election as local government councillor, he was asked instead. He was prepared to stand, but eventually declined because of his wife's disapproval. When Lawrence proposed individual working of copra it was Paulus who insisted, successfully, that it should be communal, on the grounds that the others had insufficient palms to make individual working worthwhile. However, having gained his point, he was prepared to leave the sale of copra and the operation of the village savings account to the leader.

[461] On average, Paulus is active for more time per week than any other villager and over 82 per cent of his time is spent on directly productive tasks. He is recognised as the most accomplished hunter in the village as well as being skilled at fishing and, together with sago-making, these food-producing activities account for almost one-third of his activity time. He frequently borrows a shotgun from Lawrence or from kin living nearby and from [434] August onwards often took smoked meat or fish to market in Popondetta. As he has no cash crops his main sources of income are paid work, marketing and gambling, but only paid work consumes more than an average of one hour a week. Apart from the contract work, this includes work on the bridge over the Cirua River during the first three weeks of the survey.

Although he spends more time on subsistence gardening than the cash croppers discussed above, Paulus spends much less in this work than the other non-cash croppers. Most time is spent in clearing and in planting and maintaining taro. He is one of the few with a [462] significant number of yam vines, the crop occupying as much of his time as sweet potato cultivation. As is usual for men, harvesting consumes little time, except for sugar-cane and coconuts.

The only other subsistence activity that accounts for a noteworthy proportion of Paulus' time is construction. Although much of this was, in fact, on the copra-drier, he spent

433 184 [24] [222] population in the two villages, it is estimated that the total land requirements per person in Sivepe are therefore only 2.5 acres compared with 14.8 acres in Inonda.[1] Given the lack of uniformity in the hinterland of a village which is located at the forest-grassland boundary, where subsistence is primarily derived from the forest and where garden land requirements are high, it is to be expected that travelling times would be higher for Inonda and that the economy should be diversified by using the non-cultivated areas. There are abundant sago palms in the swamps fringing the rivers and, in the absence of breadfruit (numerous in the cultivated areas at Sivepe), these are exploited in the dry season to compensate for the scarcity of garden foods. In fact, Inonda experiences both a drier and more distinctly seasonal climate and this, together with the greater abundance of land, accounts for the greater significance of supplementary food producing activities. Only hunting is practised to much the same degree in the two villages.

461 The transfer of Inonda to a new site did not lead to the expenditure of substantially more time on construction than in Sivepe, where the normal rhythm of repair and rebuilding was in operation. Since it is estimated that in Sivepe 0.7 of the 1.6 hours per man-week spent on construction are restricted to repairs and minor extensions to existing houses it seems that in Inonda, with the transfer in village site, such maintenance work ceased and the labour time so made available was directed entirely to constructing new houses. In effect, therefore, such moves are not as time-consuming as might be expected.

[m] The external sector of the economy absorbs 26 per cent of total activity time in Sivepe and 23 per cent in Inonda, but in both cases only about one-third of this is directed towards cash production. Rather more time is spent in dealings with the external agencies, particularly in Sivepe by virtue of its proximity to a mission station and location in a densely populated area which is more frequently the focus of Administration and commercial interests.

433 184 In Inonda paid work is considerably more important than cash cropping, but it is essentially of a casual and temporary nature

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[1] The estimation of land requirements is derived from the following formula (adapted from Allan 1949):

$$100\,\frac{CL}{P}$$

where:

P = percentage of the group territory that is arable under the given technology.

C = number of annual garden areas utilised in the agricultural cycle of cultivation and regeneration.

L = acreage of cultivated land per head of population per annum.

433
184
461

Table 8:1

Sivepe and Inonda: some contrasts in activity patterns
(hours per man-week)

	Sivepe	Inonda
Clearing	2.9	3.7
Subsistence gardening	13.2	11.7
(of which: taro gardening	9.1	6.6)
Other subsistence food production	2.5	7.8
(of which: fishing	0.2	3.8
hunting	1.8	2.0
sago-making	0.4	1.2)
Construction	1.6	2.0
Total - subsistence sector	30.0	33.5
Cash-producing	3.2	3.7
(of which: cash cropping	1.6	1.0
paid work	1.6	2.7)
External agencies	5.8	3.2
(of which: meetings	1.3	0.3
church work/ services	3.0	1.0)
Total - external sector	10.7	10.0
Total*	40.6	43.5

* A 't' test was applied to the mean weekly figures, to provide some measure of the significance of difference between the mean level of activity in the two samples, using the equation

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s'} \sqrt{\frac{N_1 N_2}{N_1 + N_2}}$$

where s' = the standard deviation of the population. t was computed to be 1.98; the means for the two samples are, therefore, significant at the 5 per cent level.

and was largely connected with the improvement of the Popondetta-Oro Bay road which passes by the village. In Sivepe both are of equal significance. While one girl was in permanent employment, she had assumed no major subsistence responsibilities, was single and, during the course of the survey, left the village to reside on the mission station adjacent to her place of work.

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184

In each case several cash crops are grown, all of them tree crops. To some little attention is given (e.g. coffee in Inonda) while to others effort is restricted essentially to harvesting and the subsequent processing and marketing of the harvested product (e.g. coffee and rubber in Sivepe, coconuts in Inonda). Further

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179

three elements of change, first, a trend towards the amalgamation of hamlets into larger units which assume the formal layout now characteristic of Sivepe, second, considerable mobility of settlements, and third, a high degree of individual mobility. However, the first and second he considers to be largely a function of Administration pressures and of ill-defined aims to improve the economic base of their livelihood (as is characteristic of Sivepe's intended move), and the third to be related to the 'vicissitudes of social relationships' rather than to any connection between settlement and garden sites. 361 178 166

The changes which have taken place in the range and relative importance of subsistence crops largely reflect the need to find a more reliable and adequate food supply during the dry season, although the tendency to increase the acreages of both yams and Xanthosoma at the expense of sweet potato and taro might also reflect a conscious effort by some to economise on time and effort in the subsistence sector. 241 178

The survey of activity patterns reveals little variation within the samples in the relative importance of the subsistence and external sectors: even those most strongly oriented to cash cropping are concerned first with achieving subsistence. The two most active people in the Sivepe sample, Linton and Palminus, register an above average level of activity through the whole range of tasks, the manner in which they allocate their time being proportionately little different from that of the sample as a whole. This applies equally to the entrepreneur in Inonda, who spends over half his working week in productive subsistence activities. His entrepreneurial activities are directed primarily towards a trade store which is not particularly demanding in terms of his time. In this respect his cash-producing preferences parallel those of other men where contract or casual work is preferred since, in the absence of strict schedules, it conflicts little with the requirements of the subsistence routine. 433 184 [461]

There is little difference between attitudes toward cash and toward subsistence crops. In particular the attention given to the commercial trees parallels that given to coconuts, areca, breadfruit and other economic trees associated with the subsistence sector in that, apart from planting and harvesting, maintenance is essentially restricted to facilitating access. The absence of any specialised techniques of arboriculture is carried over from subsistence to cash crop trees, the only distinction being that the cash crops are planted in formal stands. The work routine is much the same in that sustained and regular effort is neither required or given and the duration and intensity of individual periods of cash cropping work differ little from that for productive subsistence work. 245 [241]

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of few diseases or pests. In Sivepe, work groups in cash cropping are no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

461 184

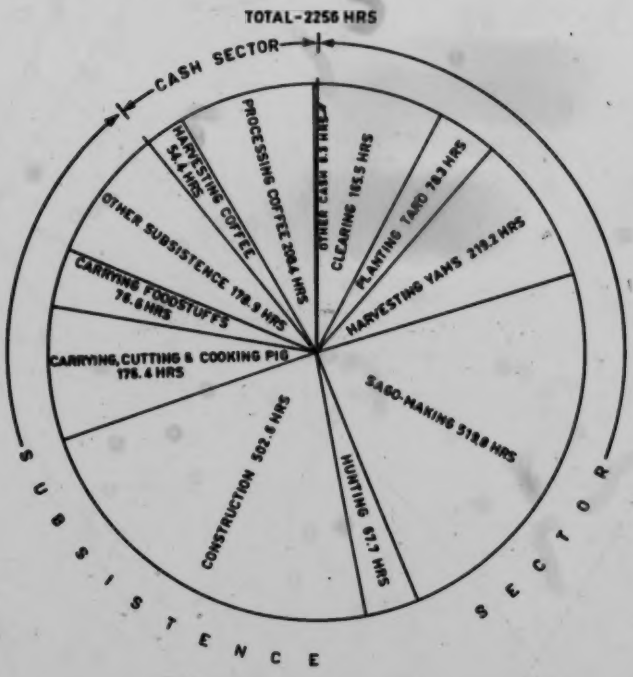
433 184 166 464 In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether given the existing technology, socio-economic matrix and level of productivity the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

461

SIVEPE FIGURE 10:1

NON-MONETARY LABOUR SERVICE TRANSACTIONS



431 no evidence that these gifts are reciprocated. Absentees continue to make them in order to protect their interests in the village against an eventual return, to acknowledge support being given to any dependents remaining behind, and to ensure their own accommodation during holidays. Villagers would like to repay such gifts with subsistence produce but, apart from one instance arranged by the researcher, are unable to do so for lack of adequate transportation.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

438 with another party and the peripheral food distributions, accounted for half the total volume of transactions effected by the sample during the week and, specifically, all the pig and 48 per cent of the taro. A mourning feast within the sample and food exchange between Sivepe and another village in weeks 26 and 27 had a similar impact on the level of transactions.

(ii) Labour services (Tables 10:5 and 10:6). Labour services are largely specific to certain activities not in themselves a regular feature of the agricultural routine, and transactions assume a distinctly seasonal pattern with the mean weekly volume in period II being approximately twice that of the other periods. This increase is entirely a function of sago-making, 56 per cent of all period II transactions being associated with it. The bulk of these transactions were in fact restricted to week 17 when services rendered amounted to 16 per cent of activity time.

Table 10:5

Sivepe: mean weekly transactions of labour services during each recording period
(hours)

461

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	11.4	1.3	-
	Disposal	12.3	1.9	-
Subsistence sector	A	26.6	77.1	32.6
	D	24.9	66.1	33.6
Total	A	37.9	78.4	32.6
	D	37.2	68.1	33.6

Within the subsistence sector labour services in harvesting yams, carrying food and pigs, and butchering the latter also follow a seasonal pattern.[1] Yams are harvested during the wet season for consumption during the dry, while the carrying of food and pigs is associated with the ceremonial exchanges and feasting which are a feature of period III. The decreasing significance of construction through the survey was related to the formulation of plans to transfer the village to a new site rather than to seasonal considerations.

[1] However, as noted on p.192, the circulation of pigmeat follows a periodic pattern on account of the killing of marauding pigs and the purchase of 'marketed' meat. Little assistance is required on such occasions.

461

Table 10:6

Sivepe: the type and volume of labour services transacted during each recording period
(hours)

Activity	Period I		Period II		Period III	
	hrs	%	hrs	%	hrs	%
1. Subsistence						
Clearing	67.8	8	61.8	7	35.9	7
Taro - plant	21.8	3	39.6	5	16.9	3
maintain	-	-	16.7	2	14.8	3
harvest	10.6	1	17.2	2	-	-
Yam - harvest	128.9	15	-	-	90.3	17
Coconuts - harvest	3.9	-	17.2	2	16.4	3
Sago-making	-	-	489.2	56	30.6	6
Hunting	-	-	36.5	4	31.2	6
Construction	328.1	38	152.9	17	21.6	4
Pig-carrying, butchering, etc.	32.2	4	8.0	1	136.2	26
Food-carrying	-	-	-	-	76.6	15
Miscellaneous	2.6	-	19.5	2	57.7	11
Sub-total: subsistence	595.9	69	859.6	98	528.2	101
2. Cash						
Coffee - harvest	54.4	8	-	-	-	-
process	205.1	24	3.3	-	-	-
Rubber - market	8.0	<1	-	-	-	-
Errand-running	6.3	<1	16.0	2	-	-
Sub-total: cash	273.8	32	19.3	2	-	-
Total	869.7	101	878.9	100	528.2	101

The exchange of labour services in the cash sector is significant only during period I. Associated almost entirely with the harvesting and processing of coffee, in themselves strictly seasonal activities, they account for 32 per cent of transactions, while, as a single activity, coffee processing is exceeded only by construction in the volume of labour services utilised. On account of the urgency associated with the processing of coffee, the circumstances in which assistance is rendered are essentially the same as for subsistence activities.

432 [434] (iii) Cash crops. All sales of coffee were restricted to period II (following intensive production during the latter part of period I) when a mean weekly income of $9.72 was derived from them. Rubber sales were made in periods I and III when mean weekly returns of 33c and $1.11 respectively were obtained. In fact the pattern

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof-sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

[1] See pp.235-44.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

437
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461

Table 11:15

Inonda: the type and volume of labour services transacted during each recording period
(hours)

	Period I (12 weeks)	Period II (6 weeks)	Period III (8 weeks)	Total (26 weeks)
	Acquisition			
Clearing	4.0	12.5	19.8	36.3
Fencing	10.0	34.4	-	44.4
Planting	10.1	14.0	22.9	47.0
Weeding	3.0	4.2	2.2	9.4
Harvesting and collecting forest products	-	3.0	7.6	10.6
Sago-making	-	263.7	-	263.7
Hunting and butchering	35.4	2.0	7.3	44.7
Construction	17.3	72.1	3.4	92.8
Household	8.8	-	21.7	30.5
Sub-total: subsistence	88.6	405.9	84.9	579.4
Coffee cultivation	10.0	17.7	6.5	34.2
Cocoa cultivation	-	-	-	-
Marketing	0.2	6.0	1.2	7.4
Purchasing	-	-	4.2	4.2
Entrepreneurial, incl. storework	7.0	-	-	7.0
Sub-total: cash	17.2	23.7	11.9	52.8
Total	105.8	429.6	96.8	632.2
	Disposal			
Clearing	12.0	0.5	4.0	16.5
Fencing	10.0	22.4	-	32.4
Planting	8.0	4.5	18.1	30.6
Weeding	3.0	10.2	-	13.2
Harvesting and collecting forest products	-	3.0	2.5	5.5
Sago-making	-	170.3	-	170.3
Hunting and butchering	61.4	2.0	1.3	64.7
Construction	17.3	19.7	3.4	40.4
Household	4.6	-	8.6	13.2
Sub-total: subsistence	116.3	232.6	37.9	386.8
Coffee cultivation	10.0	6.5	15.2	31.7
Cocoa cultivation	11.0	-	-	11.0
Marketing	0.2	-	-	0.2
Purchasing	-	3.3	5.4	8.7
Entrepreneurial, incl. storework	1.5	-	-	1.5
Sub-total: cash	22.7	9.8	20.6	53.1
Total	139.0	242.4	58.5	439.9

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Early in 1966 DASF in Popondetta, working through the OCGS, recommended the establishment of several fermentaries through the area which would purchase cherry. The object of the scheme was, firstly, to increase the cash return to the grower by eliminating time-consuming and inefficient pulping at the village level and, secondly, improve the quality of locally-produced coffee. The Orokaiva expressed their opposition to the proposal; a reaction which is readily understandable in terms of the problems inherent in marketing cherry, with its much lower value per unit weight than parchment. 4.3.3

Although the transport situation is largely beyond the control of the individual grower, the low level of productivity characteristic of the handling of cash crops is not entirely so. DASF at Popondetta estimate optimum yields of coffee to be of the order of 2 lbs of parchment per tree. The yields realised at Inonda during 1964 amounted to only about 0.37 lb per mature tree although those at Sivepa, where the ecological conditions are more favourable and the cash economy more dependent on coffee, exceeded 1.5 lbs. Although dissatisfaction with prices obtained early in the season frequently deters growers from harvesting all their coffee, as does the obligation to reciprocate with cash any assistance received in transporting it to the selling point, returns to labour are reduced by inefficient techniques. Fig. 13:1 indicates the typically haphazard movements of coffee pickers, where there is no systematic removal of cherries and a tree may be returned to several times in the course of a single period of harvesting. Due to a lack of pruning trees often grow 10 ft high or more, leaving many cherries out of reach. The lack of suitable receptacles in which to put the harvested product further reduces the efficiency of the picker - cooking pots and their lids are often used, leaving only one hand free for the actual picking. Even more inadequate are the techniques of hand pulping often used. [4C1] [245]

Similar problems are associated with rubber in Sivepa, although a reasonable level of production is maintained.[1] The communal planting contains a large number of closely spaced, self-sown trees which inhibit movement. Ignorance on the part of a number of the users as to the correct method of tapping has resulted in the scarring of many of the trees and a consequent reduction in their yield. As with coffee, trees are tapped at random, while the quality of the latex produced suffers from a lack of proper equipment.

Finally, at Inonda, the first quantity of copra produced was spoiled by smoke when husks were added to the fire. Where there is a communal element, difficulty arises out of a failure to delegate

[1] See Rimoldi 1966:93.

461
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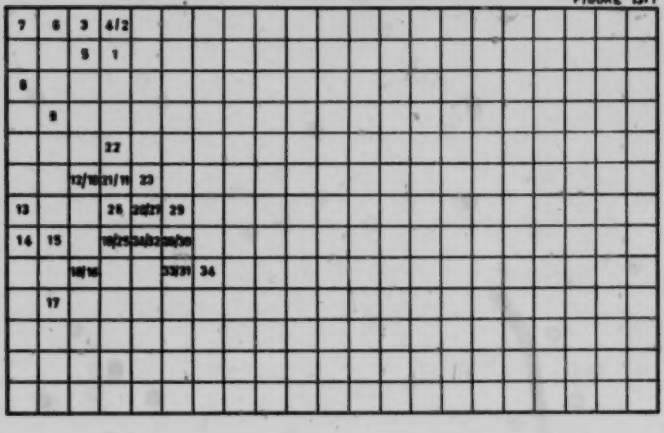
SIVEPE: THE TECHNIQUE OF HARVESTING COFFEE

THE SEQUENCE OF MOVEMENT OF ONE MAN BETWEEN TREES OVER A 1.6 HOUR PERIOD

EACH SQUARE REPRESENTS ONE TREE, THE TREES BEING SPACED AT 8 FEET INTERVALS

FIGURE 13:1



433 responsibility effectively, but, in all cases, a serious problem is lack of knowledge on the part of the cash cropper. Such recent developments as the copra scheme at Inonda and the communal garden and individual rubber plantings at Sivepe clearly reflect a continuing interest in commercial agriculture. A general failure to develop the appropriate skills would seem to be explained by the inadequacy of DASF extension patrols. Before the establishment of the Ombi-Tara scheme[1] the department did not formally concern itself with village rubber, while educational patrols in connection with the other crops are infrequent, and so little time is spent in each community that the benefits accruing from instruction are slight.

Table 13:1 details some returns to labour from the production and marketing of cash crops in Sivepe and Inonda. Rubber emerges with the most favourable return, at 12c per hour, primarily on

[1] See Morawetz 1967.

[TEXT CONTINUED ON PAGE 212]

433

Table 13:1

Some returns to labour from established cash crops

Crop	Village	No. of sales	Total hours worked*	Return (in cents per hour) Range	Mean
Rubber	Sivepe	3	112.3	9-15	12
Coffee	"	5	727.4	6-13	9
Copra	Inonda	1	30.7	-	8

* Harvesting, processing and marketing.

account of the limited amount of labour-time required to coagulate rubber in the village, when compared with the preparation of parchment coffee or copra. The differences are, however, slight and the return from coffee is inflated on account of the significant labour contribution made by children in pulping being disregarded, while the figure for copra refers to an initial attempt at production and efficiency is likely to have increased subsequently. Although rubber is generally recognised to be an 'easier' crop at Sivepe, estimates of commercial trees within the sub-district do not suggest any widespread preference for it,[1] and cash crop preferences appear to be placed on considerations other than that of the return to labour.

[46]

Coffee is the most widely-planted tree, partly no doubt because of encouragement by DASF, but also because it has a much higher value per unit weight than the others, being marketed for 18c per lb. Rubber, as coagulum, markets at 5c per lb and copra and cocoa at about 3c. This higher intrinsic value is extremely important in the prevailing marketing situation where cash crops must normally be carried some distance to the point of sale. Furthermore, not only does the seller of rubber or copra receive a lower gross return per man-journey (see Table 13:3), but his net return may be reduced through repayment for transporting these bulkier crops to the point of sale.

[434] [461]

Cash cropping is only one of several important sources of income and, in Inonda, it is comparatively insignificant. Although it can generally be presumed that the principal reason for embarking on cash-producing activities is the acquisition of money,[2] an investigation of comparative returns to labour does not provide an entirely satisfactory explanation for the status of commercial crops.

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[1] See p.18.

[2] In the case of medical work at Sasembata mission and labouring for settlers, the acquisition of cash is certainly not the sole or even main motive. See pp.30-1, 93.

A. [See Category 461, pp. 30-31; Category 797, p. 93--Analyst]

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At Inonda there is a generally expressed preference for wage employment. Compared with most other activities, returns in this are less, but a weekly income is assured. By contrast several hours may be spent in hunting or fishing and marketing with little or no return, and gambling may result in loss. Shortly after the end of the survey four men from Inonda obtained employment in Popondetta, involving a ten-mile journey to work each day. At the normal wage rate for casual labour the returns would be particularly low, while full-time employment would also make it difficult for them to maintain their food gardens. Although some men are able to call on young men from other villages to assist in garden maintenance,[1] this is not always possible and married men often need to leave their jobs to fulfil obligations in the village and embark on a period of intensive garden work.

454

Capital formation and investment and the utility of money are matters of immediate concern to the villager who participates in the cash economy in order to raise his standard of living. Trade store stocks are restricted to cheap consumer goods which give the purchaser little lasting satisfaction. Earnings are so small that once major commitments such as council taxes are settled, what remains is often sufficient only for minor purchases. Facilities for the effective saving of cash are inadequate; people are unwilling to walk several miles to deposit small sums at a savings bank agency, and money held in the house is immediately available for casual demands. This unsatisfactory situation is an inevitable feature of a predominately subsistence economy. For this reason villagers appear to place some importance on the size of individual cash payments regardless of the labour input involved, for, the greater the sum, the greater the potential utility of the money. It is in this context that the particular significance of remittances to the Sivepe economy can be understood. All important instances of capital saving and investment in the two villages followed receipts of large sums of cash.[2]

434

The pre-eminence in Sivepe, in terms of size of cash payments, of sales of coffee, pigmeat and remittances is shown in Table 13:3. In spite of the considerable price fluctuations which may occur, coffee is the only one for which there is any degree of reliability of income. The position of pigmeat in terms of size of payment and of returns to labour explains the very considerable temptations evidenced in Sivepe to 'market', while the small payments for rubber, which are a direct function of its low value per unit weight, provide a partial explanation for the failure to develop it further as a cash crop, in spite of its relatively high returns to labour.

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1 See Crocombe and Hogbin 1963:64.

2 See pp.204-5 and 256.

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Table 13:3

Sivepe: mean size of individual cash acquisitions from major sources

Item	No. of occasions	Income (in $) Total	Mean
Sale of coffee	13	159.95	12.30
'Marketing' pigmeat	2	18.15	9.08
Remittances (from outside the District)	17	153.00	9.00
Sale of rubber	5	23.70	4.73
Payment for work on settlers' blocks	7	32.60	4.66

Note. The differences between Tables 13:1 and 13:3 in number of sales of coffee and rubber recorded are explicable in terms of the availability of appropriate data on labour inputs.

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The overall pattern of involvement in the monetary economy covers a wide range of cash-producing activities but suggests only a limited commitment to cash cropping itself. Although the productivity of these crops could be readily increased the villagers do not seem greatly interested. In part they are deterred by marketing difficulties, but of equal importance is a cautiousness founded on past experience. Rimoldi (1966:101) remarks:

> The people's experience of commercial agriculture has been so confusing and the returns to be derived so problematical that we are not prepared to say that, assuming the continuation of present marketing conditions, any member of Sivepe firmly believes that cash crops would still warrant extensive investment of his time and capital.[1]

The history of cash cropping among the Orokaiva is extremely chequered and is reflected in a continuing unwillingness to be committed to it as the principal source of income. Instead, more of an opportunist approach to money is adopted, and this may involve taking work where the returns are extremely small.

461

Although Crocombe and Hogbin (1963:83) have suggested that considerable increases in agricultural output could be effected without the introduction of capital, the villagers themselves consider major investments to be an essential concomitant of such increases, if only in order to demonstrate to others the advances they have effected. Preference is therefore placed on activities characterised as much

[1] See also Crocombe and Hogbin 1963:82.

by large cash payments as by high returns to labour and, in effect, a premium seems to be placed on money rather than time. This is understandable in the circumstances where capital saving is extremely difficult and where there is an apparent surplus of labour, since it is the simplest manner in which substantial capital investments can be made.

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

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(614)

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

125 period of up to twelve months.

Data were collected daily on the work undertaken by each villager of fifteen years of age and over. Details of the work proposed for each day were noted each morning, and usually verified in the evening. However, as the people do not have clocks and we were unable to make detailed checks throughout the day, the number of hours recorded for each task can only be taken as approximate.

512 461 It is much easier to summarize and compare the hours spent in various activities if we have a standard yardstick of a day's work. Plantation labourers work an eight-hour day, but we are reluctant to use this as a basis for comparison with village folk. On the other hand, a simple total of hours spent in each task can also be misleading: for example, the councillor on one occasion spent seventeen hours on council work (including travelling time) in one day. Merely added into a list of hours this would suggest that more than two full days were spent on this duty, though this was not in fact the case. Likewise we have found it difficult to account for days spent in mourning, travelling or celebrating in such a way that total time can be effectively compared. From a preliminary analysis of days which were not marred by mourning, celebrating or sickness, we found that people were occupied in activities other than domestic and leisure for about seven hours daily. Therefore when a day is taken up with sickness, mourning, travelling or other non-productive occupations, we have recorded it for comparative purposes as seven hours.

It will be seen from Table 11 that on the average each man spent 14.0 hours a week on subsistence activities (including hunting etc.) and each woman 15.1 hours. If the time spent in cash cropping is added to this the average becomes 14.7 hours for men and 16.0 hours for women.

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Table 11

Time patterns

	Average hours per week (6 weeks)		
	Men	Women	Both sexes
Traditional production			
Subsistence	9.6	13.9	11.7
Hunting, fishing and foraging	4.3	1.2	2.8
Building	0.1	-	0.1
	14.0	15.1	14.6
Production for cash			
Paid work	11.3	-	5.7
Cash cropping	0.7	0.9	0.8
	12.0	0.9	6.5
Non-economic activity (other than domestic and leisure)			
Social obligations	12.5	20.0	16.2
Travel	2.8	3.1	2.9
Sickness	2.6	3.2	2.9
Council	0.6	0.1	0.3
	18.5	26.4	22.3
Total	44.5	42.4	43.4

When wage labour is available locally it is keenly sought after by the villagers. Two men had regular work for the Public Works Department. In addition some casual work was available at various times during the year on a local construction job. All the able-bodied men under about forty years of age offered themselves for work at such times but there was not always sufficient work for all to be employed. Table 12 shows that those men who were engaged in paid work for 40 or more hours per week still spent an average of 6.0 hours on subsistence activities (this is just under half that for all men in the village). They spent much less time on social obligations and travel, and had much less leisure time. This is illustrated in more detail in Diagram 1.[1] Owing to the absence of the paid workers during the day their wives had to undertake more work in the gardens, though in many cases a young male relative of the wife came to help her from time to time.

Table 12

Subsistence work done by men who were also engaged in full-time paid work

	Men in paid work	Total hours work on subsistence	Average hours per man
1st week	5	61	12.2
2nd "	5	nil (feast)	0.0
3rd "	No man had a full week's work this week		
4th "	1	nil	0.0
5th "	1	6	6.0
6th "	1	11	11.0
	13	78	6.0

Note: One man was omitted from the table as, though he was paid full time, he did not have to work full time and was able to do his subsistence work in his employer's time.

(1) It should be noted, however, that those who were accepted for employment were the younger, more energetic men who would probably have done more work than the average in any case.

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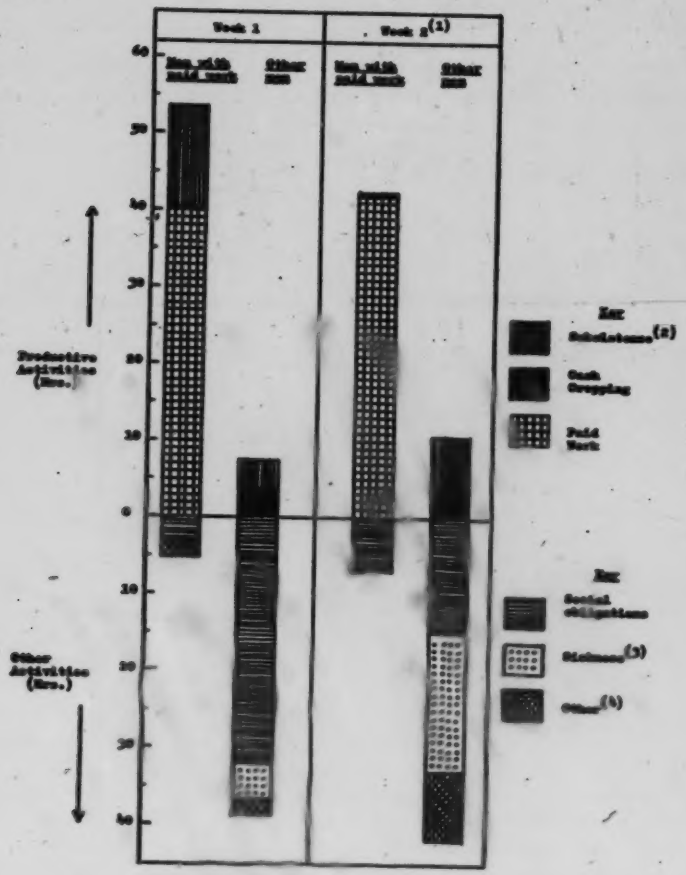
Diagram 1

Activities of wage earners compared with those of other persons.

[In average hours per person per week]



(1) This chart is only drawn out for the two weeks as thereafter there was not more than one man fully employed (see Table 12)
(2) Including hunting, fishing, foraging and building
(3) Including curing for the sick
(4) Including travel, council work etc.

[p 65]

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

[125]

(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependents. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 68]

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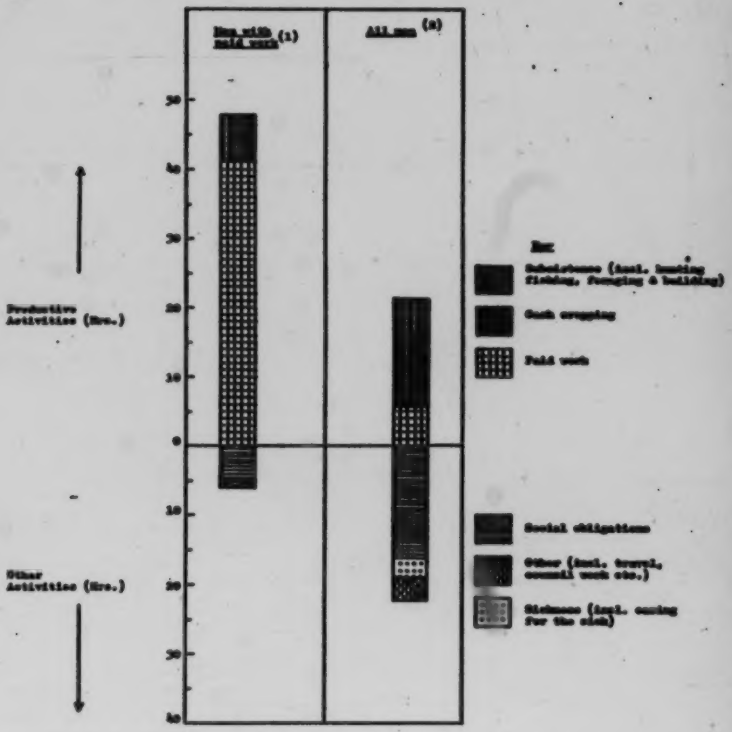
Diagram 2

Activities of men in paid work compared with those of all men in the village (in average hours per man per week).



(1) For first 2 weeks of the survey (see Table 12).
(2) All men for the full 6 week survey period.

[p. 69]

512 461 tioned, but it does indicate the effects of life crises on productivity. Table 13 shows the hours spent on various subsistence tasks during a "normal" week when there was no mourning or feasting as against the average of those weeks when there was mourning or feasting. It will be seen that approximately the same amount of time is spent on subsistence activities as a whole, but whereas in the "normal" period most of this time is spent on cultivation, during life crisis most of this time is spent harvesting accumulated reserves of food. It will also be noted that during times of crisis the work of women increases, as they do most of the food preparation, whereas the work of men decreases.

Table 13

Hours spent per person in subsistence activities in a "normal" week compared with weeks of mourning or feasting

	One "normal" week (no mourning or feasting)(1)			Weekly average of five weeks with mourning or feasting		
	Males	Females	Both sexes	Males	Females	Both sexes
Cultivation:						
Planting	5.6	1.9	3.8	1.7	0.9	1.3
Clearing	1.6	-	0.8	1.2	0.6	0.9
Fencing	3.8	3.6	3.7	0.7	-	0.3
Weeding	-	0.8	0.4	0.1	2.4	1.3
	11.0	6.3	8.7	3.7	3.9	3.8
Extraction:						
Harvesting	0.3	4.4	2.4	1.9	8.7	5.3
Sago-making	-	-	-	3.7	2.0	2.9
	0.3	4.4	2.4	5.6	10.7	8.2
Total:						
All subsistence activities	11.3	10.7	11.1	9.3	14.6	12.0

(1) This was the last week of our survey. The women of the deceased's family still spent some time in mourning, but the rest of the village resumed normal work.

461 221 462 241

The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
[411] Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

	Men	Women	Average
Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit relatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

423 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening [241] areas of individuals. People frequently plant food crops on the [613] land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:772.

[461] There is a clear hierarchy of priorities among the various activities with which the Inonda people can occupy their time. Serious illness, of course, precludes any other activity. Unless suffering from illness the men give priority to wage labour (in most instances this was heavy manual work). In the absence of paid work, social obligations connected with life crises take precedence over all other activities (except the harvesting of food). During our survey, men spent an average of 15.3 hours weekly on social obligations associated with life crises, and on travel (which is generally related to social obligations) and women 23.0 hours. During events associated with life crises people do undertake subsistence activities, but almost exclusively harvesting and hunting to provide food for the festivities.(1) If there are no life crises in the offing then priority is given to clearing, planting and weeding the gardens in order to ensure the food supply. Thereafter, free time may be used for cash cropping, the making of artifacts, or leisure.

The effect of life crises on cash cropping was markedly different from that on paid labour. During the survey, villagers who were not engaged in paid labour spent a considerable amount of time preparing for a puberty ceremony and a birthday feast and did not work on their cash crops during the [465] periods of preparation. When a villager died, for the three weeks of mourning following his death, nobody worked on cash crops as this would have been contrary to accepted codes of respect for the dead. Those who were engaged in wage labour, on the other hand, did not take any time off to prepare for either the birthday feast or the puberty ceremony, though they did assist in their off hours. When the death occurred, the employees, including a son of the deceased, took only two days off before resuming their jobs. The cultural restrictions on productive activity during a period of mourning, and the obligation to give priority to feast preparations over economic pursuits,

[588] (1) An interesting instance of the adaptation of traditional obligations to serve modern economic ends was noticed during our stay. It is common for a prospective groom to assist his prospective father-in-law with housebuilding or bush-clearing. One ex-Inonda man who had taken a block in the government resettlement scheme got his prospective son-in-law (who lived in Inonda) to work in his (the father-in-law's) coffee garden. As the son-in-law was socially of lower standing than the bride and as he was more anxious about the match than she, the father-in-law was able to derive several weeks free labour from both the groom and his sister, with occasional help from their mother and other relatives.

apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

(1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

(2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available [460] to a limited extent at a rate of £150 per year in town areas and [465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

Capital: Almost no capital is used in primary pro-
411 duction in Inonda. The few tools needed for small scale produc-
245 tion are easily acquired from current income, the land is not an [654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De- [411] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

[466] [511] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

keep warm. As a consequence they slept much of the day following.

Non-traditional experience: Table 14 below shows that there is a correlation between non-traditional experience (in terms of years of paid work and education), and the planting of cash crops. Table 15 shows that there is likewise a correlation between years spent outside the village and the planting of cash crops. Absence from the village is generally but not invariably associated with work or schooling. The data presented in the tables suggest that an increase in non-traditional experience is associated with increased interest in cash cropping.

Table 14

Comparison of non-traditional experience (in terms of paid work and schooling) with planting of cash crops

Total years in paid work or school	Number of Coffee or Cocoa Trees	Code No. of Household Head
45	see note (a)	8
17	335	1
16	288	4
11	150	7
10	0	6
8	178	3
4	0	5
0	0	2

(a) This man is a stranger in the village, but he is currently planting extensive cocoa gardens in his village of origin.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Nonconformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

Table 6

Average hours spent per week in various tasks - men only
(not including domestic and leisure)

	Entrepreneurs				Villagers		
	A	B	C	Average	Inonda*	Sivepe**	Average
Traditional production							
Subsistence	2.8	7.3	7.0	5.7	9.6	13.5	11.5
Hunting, fishing, foraging	0.3	4.7	3.1	2.7	4.3	1.3	2.8
Building	-	1.2	4.0***	1.7	0.1	2.7	1.4
	3.1	13.2	14.1	10.1	14.0	17.5	15.7
Production for cash							
Paid work	-	-	-	-	11.3	2.6	6.9
Cash-cropping and store	25.1	19.3	14.0	19.5	0.7	0.8	0.7
	25.1	19.3	14.0	19.5	12.0	3.4	7.7
Non-economic activity (other than domestic and leisure)							
Social obligations	0.3	0.7	2.0	1.0	12.5	4.9	8.7
Travel	-	3.7	1.0	1.6	2.8	4.1	3.4
Sickness	1.7	1.4	5.0	2.7	2.6	1.0	1.8
Council, etc.	0.5	10.7	-	3.7	) 0.6	0.4	0.5
Church	-	3.2	8.5	3.9	)		
	2.5	19.7	16.5	12.9	18.5	10.4	14.4
Total	30.7	52.2	44.6	42.5	44.5	31.3	37.9

* From Crocombe and Hogbin 1963b:63.
** From Rimoldi 1966:28.
*** C built a new house during this period.

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Table 7

Average hours spent per week in various tasks - all adults
(not including domestic and leisure)

	Entrepreneurs and families*				Villagers		
	A	B	C	Average	Inonda	Sivepe	Average
Traditional production							
Subsistence**	9.0	13.0	8.3	10.1	11.7	14.4	13.1
Hunting, fishing, foraging	1.6	5.0	1.6	2.7	2.8	1.2	2.0
Building	0.4	0.9	1.3	0.9	0.1	1.6	0.8
	11.0	18.9	11.2	13.7	14.6	17.2	15.9
Production for cash							
Paid work	-	-	3.6	1.2	5.7	1.3	3.5
Cash-cropping	9.7	21.9	4.5	12.0	0.8	0.5	0.6
	9.7	21.9	8.1	13.2	6.5	1.8	4.1
Non-economic activity (other than domestic and leisure)							
Social obligations	2.6	0.7	1.0	1.4	16.2	4.4	10.3
Travel	0.7	3.3	0.3	1.4	2.9	3.3	3.1
Sickness	4.0	1.1	2.8	2.6	2.9	2.5	2.7
Council work, etc.	1.4	4.1	-	1.9	0.3	0.9	0.6
Church	3.2	3.0	3.6	3.3			
	11.9	12.2	7.7	10.6	22.3	11.1	16.7
Total	32.6	53.0	27.0	37.5	43.4	30.1	36.7

* For A this included his two resident sons and their wives, two brothers and their wives. For B it included his wife and his brother and for C his wife and his adolescent daughter.

** B and his family averaged 17 hours weekly on food gardening, but 4 hours of this has been transferred to cash-cropping as he markets surplus vegetables in Popondetta. Most of the food gardening is done by his wife (26.8 hours weekly) and brother (16.9 hours).

It is thus understandable that though the entrepreneurs are often not acceptable in leadership roles in their own villages, they are acceptable in elective roles where the selection lies with a wider community. It is likely that the stimulus they give to economic change among the Orokaiva is considerable. When they achieve their goal of owning motor transport, which gives tremendous prestige, many will consider that their 'way' has been substantiated and the impact of their example will be multiplied.

Summary

Data are presented on the four rural entrepreneurs among the Orokaiva. Because the sample is so small few generalisations can be made. All had travelled much more widely than the average villager, had been in paid employment for longer and had held posts of greater skill and responsibility than the average villager. Whereas most Orokaiva people established their gardens on their traditional lands, the entrepreneurs have deliberately not done so. The three who had developed their enterprises without financial help were all eldest sons who benefited from the labour of junior relatives. All have attempted to employ permanent labour, but none has succeeded.

There were marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spent less time than villagers did on subsistence gardening, but twenty times more in cash-cropping and trading; they spent much less time on traditional social obligations and much more on community leadership.

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657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
177 of the savings account, said that they had first heard of blocks through the Sangara ex-servicemen's resettlement (not conversion) scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
[185 which many Ombi-Tara people find attractive. Several people sug-
461] gested that they would like to employ labourers and work less hard themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Hanuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:5): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

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Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognised by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[46] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one
[629] *gaga* for each clan in a village. The *gaga* performs an important social function for it is
[584] here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the
[171] paper mulberry tree. This is used throughout the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[284] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[108] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A] [TEXT CONTINUED ON PAGE 12-A]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

731 remember the dead in such ways. In the meantime one may hear the drums beating
765 in some villages as the men spontaneously come together for recreation and practice.

The programme of reconstruction, then, is very much a matter of the allocation
731 of time between such ends. To regard it simply as a matter of building houses and
making gardens would be a mistake. But even within that simple framework the
311 rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

731 Papuans, and particularly the Orokaiva, work with great vim and energy when
they can work as a team, within sight and sound of each other. The melodious
646 song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting.
[657] The custom of Government Day, the day a week which is set aside for village hygiene
[797] and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

657 So far I have been writing mainly of the immediate problems of re-settlement.
The Administration is however taking a much wider view and there is a great deal of

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
a sense of closeness to newly independent non-white states. But the
[203] information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
511 the subsistence sphere. Money was essential for payment of taxes
and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
454 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

46 436 439 435 be acquired without too much hard labour or threat to status, and only if its acquisition does not involve foregoing other more highly valued benefits. Thus, the market has a great elasticity of supply: when the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 184 Comparison with Inonda: In this section I have discussed a small number of acculturation variables as they apply to Sivepa. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepa, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepa. It would be wrong to suggest, however, that acculturation in Sivepa was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepa young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepa size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepa, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepa did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepa.

177 436 583 In the attitude to money, and to education, Inonda was clearly split between the traditionalist and the modern faction. The modern faction was, in fact more money-oriented than were the Sivepa people.

653 a council responsibility. While the rebuilding of the arterial road
[991] from Popondetta and Kokoda was an expensive (and seemingly interminable)
responsibility of the government, the side roads became the council's
responsibility. Similarly, the government built the major hospitals
while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of
[689] $8 for men and $1 for women. This is the only personal tax directly
levied among Orokaiva village people and has replaced the government
head tax. Its collection was not a government but a council respon-
sibility, although defaulters could, of course, be brought before a
magistrate and sentenced to a term in a government jail. Councillors
explained to the villagers that the taxes they paid went to pay for
their roads, aid posts, water supplies, etc. The government hoped
that villagers would be more ready to pay their taxes if they could
see tangible local benefits to justify them. One effect of the system
was that villagers became very interested to see that as much as
possible of the tax money should be spent in their own locality. They
rapidly developed a strong propensity for parish-pump politics. When
I visited Sasembata district first, there was little evidence of any
council projects in the Sasembata wards. People objected to paying
[664] their taxes: they were not getting anything for them. Pressure
resulted in roading improvements and plans for a comprehensive water
supply for the area. Councillors who did not fight successfully for
such causes were liable to miss re-election.

The head tax manifestly acted as a significant economic incentive.
[961] A man who grew no coffee and earned no money could not pay his tax.
Even if a man could not be bothered harvesting all his coffee, he
would certainly harvest enough to pay his tax. Some men who had no
coffee took plantation jobs a month or two before the tax was due. I
noticed this in two cases at Inonda; most of the Sivepa men had coffee
[687] gardens and did not need to work outside. For the first time, tax
defaulters in 1966 were actually jailed for two months. In one village,
Kendata, there were as many as 50 defaulters who fought the police
and ran into the bush; in Sivepa there were four, all without coffee
gardens.

In spite of this tension, people generally supported the ideology
177 of the council: they wanted the "new age" and they wanted the kind
623 of services that were supplied by the council. At the same time it
was never forgotten that behind the tax-gathering councillors stood
the government police, armed and ready to make arrests if the councillors
were resisted or attacked, as sometimes happened. Those who did not
pay and tried to escape arrests were judged by the conformists to be
ignorant men, unwisely looking for trouble. On the other hand, people
deeply sympathised with them. People wanted the "new age," but they
did not like the element of compulsion that went with it. They re-
elected the councillors who compelled them because they held the
Australian authorities, not the councillors, to be directly responsible.

114 kind enough to show me this study in manuscript, I shall utilise it
464 here. The general question with which Mr. Waddell is concerned is
whether earlier students of societies depending on shifting agriculture
are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepa, what
potential labour surplus there might once have been has already been
taken up by labour migration of male adults (which, for his sample, he
puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines
economic activity as comprising only the production of food, clothing
and shelter, and argues that, given the existing socio-economic matrix,
all the other activities listed on his time charts (see Table 5)
should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands
has resulted in a saving of two-thirds in the time allocated to specified
axe-using tasks and who concludes from this that a vast potential labour
surplus is thus created. Waddell shows, by a quantitative study of
the allocation of time <u>within activities</u>, that only 38.5% of the time
allocated to an activity is actually given over to the main task, and
even if one includes ancilliear, and other productive tasks, this
raises the proportion to less than 50% of the total time devoted to
that activity. (See Table 17.) As steel implements are used for only
a portion of productive tasks, they did not, Waddell argues, make a
crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepa was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was
241 in an excellent position to discover this as at the time of his survey
seven of 15 households surveyed engaged in cash-cropping; he was therefore
able to inquire how this affected the time spent on subsistence food
production. As it happened, the median time spent on subsistence
gardening by the whole sample equalled precisely the median time
spent by the cash-cropping households. (12.6 hours per week, vide
his Table 5.5) It appears from the table I derived from Mr. Waddell
(my Table 17) how the cash-cropping families fit in this extra work:
they spend a great deal less time having rests and meals. While non-
cash croppers allocate only 28.4% of the time within activities to
their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell
gives interesting explanations which account for part of this discrepancy,
even if full allowance is made for these, the fact remains uncontestably
that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the
177 most acculturated and industrious members of the community. This
seems to suggest a considerable heterogeneity in working habits as
between the members of the community. The author clearly shows this
heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

groups, and I shall return to this aspect. In addition, however, a considerable weight is placed upon the difference between individual dispositions. I would suggest that in this respect, Mr. Waddell may have put too much confidence in the results of a synchronic study and it is fortunate that another investigator (myself) was able to observe the community at a time when coffee growing had become a general activity. Regrettably, I did not collect quantitative data of the same scope as Mr. Waddell.

I shall anticipate later chapters by suggesting here, that differences in level of acculturation in Sivepe never go very deep. Certainly, it is always the same minority of relatively acculturated people who are willing to risk making innovations. This applies to the introduction of European styles of clothing, of radios, kerosene lamps, sending children to school regularly, being baptised, building lavatories and also to the growing of coffee and the planting of the improved Malayan rubber trees. All these things are always done first by a few pioneers, and usually the same pioneers. The basis upon which these people become pioneers is usually a relatively shallow contact with western civilisation. Mostly, the new skills, activities and other introductions they sponsor are not so far ahead of the rest of the community that a swing of local fashion cannot make them universal or almost universal properties. There was no evidence of a widening social and economic gap between acculturated and unacculturated families; there was a gap, but it always remained small (at least, so far). The pioneers tried innovations; the conservatives held back until they saw the innovations succeed, as happened by no means always. Then, one, two or five years later, the conservatives followed the progressives. Thus, the activity pattern Waddell observed among the progressives is now much closer to the general norm. The people themselves feel sure that today they work harder and rest less than they used to do. The rest periods I observed were shorter than those measured by Waddell in 1964.

Nonetheless, I would support his main contention that the work day of the cash-croppers of Sivepe today cannot be greatly lengthened, nor productivity greatly increased, unless ways can be found to make work more efficient by technological and other innovations. I have already suggested that a degree of collectivisation would permit the introduction of some labour-saving machinery and better transport facilities. Mr. Waddell makes two further suggestions which need brief discussion.

The first of these is interesting because it questions an assumption that has been almost universally accepted in the literature on shifting cultivation. He argues that the shift from Old to New Sivepe did not actually reduce travelling time from village to garden but in fact lengthened it. He quotes detailed figures to prove this. Village locations, therefore, are not actually being chosen by Orokaiva by criteria of economic rationality, but on wholly non-economic grounds. If this were true, we would need to re-examine whether other societies

of shifting cultivators actually do shift their villages to save time as previous investigators have believed: perhaps, we need to look for entirely different motivations.

The question is an interesting one, but Sivepa does not provide a clinching counter-instance. Mr. Waddell's sample was taken entirely from the Jegase and Timunu clans, while he did not collect data on travelling time from the Seho clan. Now it is the latter clan which owns most of the land around New Sivepa, so that their travelling time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timunu) now have gardens very close to New Sivepa. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepa in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepa. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time allocation of the elderly. He shows that in adulthood the amount of productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the Polynesian elder he does not become a sage, remote from economic

22: Schwimmer E-4,5 (1966-1967) 1969 0J23 Orokaiva 0J23 Mount Lamington

TABLE 5

MEAN TIME SPENT PER MAN-WEEK ON
SUBSISTENCE ACTIVITIES IN SEASONAL VARIATIONS
IN SIVEPE, 1964

Source: Eric Waddell, manuscript

Activity		Periods			
		I: 3 Feb - 3 May	II: 20 Jul - 6 Sept	III: 9 Nov - 3 Jan 1965	Total
Clearing		4.4	2.4	3.3	3.7
Taro:	Planting	1.9	2.8	3.0	2.4
	Maintenance	3.0	3.9	4.5	3.6
	Harvesting	3.4	1.9	3.0	3.0
	Marketing	0.1	-	-	0.1
Sweet Potato:	Planting	-	-	0.1	-
	Harvesting	0.7	1.1	2.4	1.3
	Marketing	0.1	-	-	0.1
Yam:	Planting	0.6	-	-	0.3
	Maintenance	-	-	0.2	0.1
	Harvesting	0.8	0.1	0.6	0.6

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TABLE 5
(Continued)

Minor Crops:	Planting	-	0.1	0.1	0.1
	Maintenance	-	-	0.1	-
	Harvesting	1.0	3.4	1.1	1.6
	Marketing	0.1	-	0.3	0.1
Fencing		-	-	0.2	0.1
Fishing		0.2	-	0.5	0.2
Hunting		0.7	0.8	4.8	1.8
Sago-making		-	1.5	0.4	0.4
Preparation of Tools and Equipment		0.3	-	0.5	0.3
Construction		2.2	1.6	0.6	1.6
TOTAL		19.7	19.8	25.8	21.3

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TABLE 8

ACTIVITY PATTERNS OF HOUSEHOLDS
IN SIVEPE AND INONDA
(In Hours Per Man-Week)

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Source: Waddell and Krinks, 1968: 97 and 132

Note: As virtually all Sivepe households were involved in cash-cropping by 1966-1967, the figures quoted here for Sivepe show the mean activity pattern for cash-cropping households.

Activity	Mean Number of Hours Per Adult Per Week	
	Sivepe	Inonda
Clearing	3.3	2.9
Subsistence Gardening	13.2	11.7
Other Subsistence Food Production	3.0	7.5
Other Subsistence Activities	1.4	3.4
Cash Cropping	2.3	1.0
Paid Work	1.0	2.7
Household	6.1	3.8
Social Obligations	3.3	4.2
Sick	1.0	1.6
External Agencies	7.0	3.2
Other	0.9	1.5
TOTAL	42.3	43.5

TABLE 17

SIVEPE: THE ALLOCATION OF TIME WITHIN ACTIVITIES
A DETAILED ANALYSIS OF 28 OCCASIONS COVERING 19 INDIVIDUALS AND
A BREAKDOWN ACCORDING TO AGE; SEX AND CASH CROPPING STATUS
(In minutes)

Source: Waddell and Krinks 1968: 113

		Travel	Rest and Meals	Main Task	Ancillary Tasks	Other Tasks	Cooking	Washing	Total
Whole Sample	Mean Duration	42	72	102	15	14	17	3	264
(28)*	%	15.8	27.4	38.5	5.7	5.1	6.3	1.2	100
Males	Mean Duration	41	74	118	26	12	-	-	272
(14)	%	15.1	27.4	43.5	9.5	4.3	-	0.1	99.9
Females	Mean Duration	42	70	85	4	15	33	6	257
(14)	%	16.5	27.4	33.2	1.6	5.9	13.0	2.4	100
Cash Cropper	Mean Duration	32	36	106	14	16	5	2	210
(16)	%	15.1	17.0	50.6	6.5	7.8	2.3	0.8	100.1
Non Cash Cropper	Mean Duration	55	121	96	17	10	33	6	336
(12)	%	16.4	36.0	28.4	5.0	2.9	9.7	1.6	100
15-24	Mean Duration	21	181	49	12	-	126	28	418
(2)	%	5.0	43.5	11.7	2.9	-	30.2	6.8	100.1
25-34	Mean Duration	24	29	101	1	12	10	3	179
(8)	%	13.4	16.1	56.3	0.6	6.6	5.3	1.7	100

TABLE 17
(Continued)

		Travel	Rest and Meals	Main Task	Ancillary Tasks	Other Tasks	Cooking	Washing	Total
25-44	Mean Duration	33	53	132	36	1	6	-	259
(8)	%	12.6	20.3	50.7	13.8	-	2.2	-	99.6
45-54	Mean Duration	72	69	99	10	31	10	1	292
(9)	%	24.5	23.6	34.0	3.5	10.6	3.6	-	99.8
55+	Mean Duration	30	390	-	10	-	-	-	430
(1)	%	7.0	96.7	-	2.3	-	---	-	100

* Indicates number of man-instances observed.

TABLE 18

SIVEPE: THE DIVISION OF LABOUR BY AGE
(In Hours Per Week)

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561
512

Source: Waddell and Krinks 1968: 104

Age Group	15-24	25-34	35-44	45-54	55+
No. of Individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total Weeks Present	105.9	128.0	115.3	252.6	51.1
SUBSISTENCE					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	14.9	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.6
Household	3.7	8.7	2.9	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	2.9	1.8
EXTERNAL					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	0.9	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.8	0.2	-
TOTAL	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.7	78.1	80.9
Subsistence time*	55.4	73.8	74.1	78.4	87.3
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

THE SELF AND THE PRODUCT:

Concepts of Work in Comparative Perspective

ERIK SCHWIMMER

Introduction[1]

121 The cross-cultural comparison of concepts is part of the anthropologist's trade. Whatever the concept, we find ourselves asking whether anything resembling it exists among the people we study. The concept presents itself very often in English: law, government, religion, friendship, reciprocity. A school of thought often arises which holds that the concept is not universal but confined to a limited set of cultures, inevitably including our own. Such a suggestion is usually opposed by others who propose definitions of the concepts so as to make them look universal. The concept of *work* is clearly of that type.

There are good reasons for thinking that this concept is a product of 18th century Europe and the industrial revolution. Work as a concept is based on the assumption that, from a certain viewpoint, all economically useful activities are fully comparable by a yardstick transcending their diversity, in other words, that labour has become a commodity and that the technical and administrative direction of that labour has become part of the same kind of commodity. This is a perspective with which we have become familiar through Mandeville, political economy and Marxism (Baudrillard 1973; [461] Dumont 1977). On the other hand, it has been shown that the [177] Ancient Greeks had no corresponding concept (Vernant 1965) and it is not difficult to show that the Melanesians did not have it either, until they came into contact with western capitalism. One of my Orokaiva informants was categorical on this point: "The people of olden times," he said, "did not take up work (*pure*) for it was only Jesus Christ who gave them work (*pure*) to take up."[2]

On the other hand, some very prominent authors have presented 'work' as a universal concept. One of them was Karl Marx to whom the concept 'work' was just as much a universal as man's supposedly perpetual 'transformation of nature to human ends'. In his theory all modes of production have their 'labour force'; what he opposes is

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Works of Art

[121] To test this possibility, let us consider a major subculture of capitalism, namely that of literature, music and the arts. Here, work is manifestly being converted into exchange rather than use values. Works of art today, even if 'made for' or 'dedicated to' particular persons, are not really made primarily for their use or personal edification, but rather a kind of communication between the maker and the world or universe. Unlike the craftsmen of Ancient Greece, they do not (except reluctantly) produce work after a design imposed by their paymasters; they do not subscribe to any 'alienating' reduction of their work to 'average labour'. Moreover, on the juridical level, they have continuing rights in the product of their labour even if they 'sell' it – rights that are codified and enforceable in law. They live by the market value – the exchange value – of this labour. Clearly we have here a system that combines exchange value with identification.

This configuration: identification + exchange value is not, of course, unproblematical. What is a fair price for a poem or painting? In practice, this depends entirely on reputation. In other words, it is normal to spend several years in a garret until one has acquired sufficient reputation to be able to claim a rate of remuneration not less than, say, the basic wage for the 'socially necessary labour time' that goes into one's poems or paintings.

There is a vast perceived difference between the various value estimations: the exchange value (very low), the use value (very high if the work is 'good') and the value based on socially necessary labour time, i.e. what the poet or painter would receive if he became a 'government artist' in a Marxist-controlled economy.

If the artist wishes to avoid starving in a garret, he can always take a 'job', i.e. sell his labour not as an artist but as a teacher or clerk or carpenter or whatever. This labour will in his estimation have much less use value than his art, but it has far greater exchange value. He will tend to feel alienated from his 'job' whatever it is [461] but identified with the art which is his 'real' work. Sedentarized Indian hunters in Canada and urbanized Orokaiva taro-cultivators see a rather similar relationship between their 'jobs' and their 'real work'[8] (cf. also Cohen, this volume).

Towards a Melanesian Definition of 'Work'

The present enquiry concentrates on the analysis of concepts of work found in a specific society, the Orokaiva of the Northern Province of Papua New Guinea. These concepts, described as an indigenous semiotic system, are presented with reference to two

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure art*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure art* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gatha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Time is therefore a highly inappropriate measure of useful activity in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

A great man, or a manager, is not always a gardener. He may be a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not dark like that of Hesiod or of Adam's curse. An Orokaiva informant once recorded for me on tape his version of the relevant portion of Genesis:

> "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.
>
> He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."
>
> Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . .[9]

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

In the Orokaiva village, exchange value may enter in four ways: through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

The term *pure ari* is appropriate to describe the white man's labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution. Councillor Colin brings this out by his example of the policeman who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[30] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

No great value was usually attached to conversion to western commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

the latter. Also, migrants normally leave behind a family member with the task of looking after the land (*simbari*) in a technical, magical and juridical sense. Often he also leaves behind a wife for whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume). Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[21]

Growing coffee is not considered pleasurable like growing taro. When suggesting to an informant that coffee trees have a sweet smell, I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

It is paradoxical that the work represented as introduced by Jesus

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[23] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

27: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

Our discussion of the culture hero Jesus Christ was necessarily incomplete. For he did not institute merely payment for labour – a real gift to man but, as we have seen, somewhat limited in scope, but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67, 1970, 1973) and used as basis for the present discussion was supported by grants from the Canada Council.

2. This statement was made to me by Councillor Colin in a taped oration held in Torogota in 1966. His words: *'Iji aramiko ambo ainge esoro. Amina pure mo umbae. Amoru pure re Keriso na ikena umbasi ea avo.'*

3. Melanesian time allocation studies have recently been the subject of a detailed economic analysis (Kirkpatrick 1977). It is of interest that the field studies of time allocation which were given the highest "subjective rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks (1968). The latter study was conducted in the Orokaiva villages of Ionda and Sivepe, where I myself did intensive research some years later, on a different subject. As I have already published a detailed commentary on the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little about it here. It is, however, highly relevant to a conceptual study such as the present one.

4. M. Panoff reports that *kumu*, in the sense of subsistence activities, took up an average of four hours per day among the Maenge. He mentions no cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean time spent per man on all agricultural tasks in nine Melanesian villages is about 22 hours per week. One may thus assume that Panoff's figure refers to all tasks making up agricultural activity in Melanesian time allocation studies. But what is here meant by 'activity'? As we show in the present article, it includes not only the main and ancillary agricultural

27: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

121 tasks but also travel, rest, meals and miscellaneous "other tasks" – the most mentionable of which are cooking and washing. The phrase "dépense d'énergie" must thus be taken very broadly.

5. The present author's knowledge of Greek antiquity is at undergraduate level. From an anthropological viewpoint, an interesting general discussion of Hesiod will be found in Jaeger (1946). But see also Vernant (1965: 19–47) and Detienne and Vernant (1974: 59–124).
6. The translation of ΔIKH as 'justice' obscures an interesting difference made in Greek between two kinds of justice. *Themis* (ΘEMIΣ) justice as dispensed by the early kinds and nobles whereas ΔIKH appears to be a system of dispute settlement by compensation payments to the injured party. The fundamental meaning of ΔIKH is 'due share' (Jaeger 1946: 103). YBPIΣ would then be to refuse compensation and seek justice by force.
7. Vernant's explanation (p. 222) of this classification is as follows: "Dans la perspective de la valeur d'usage, le produit n'est pas vu en fonction du travail humain qui l'a créé, comme travail cristallisé; c'est au contraire le travail qui est vu en fonction du produit, comme propre à satisfaire tel besoin de l'usager . . . Marx écrit, de façon frappante, qu'en qualité de valeur d'échange, la marchandise n'est plus envisagée au point de vue du service qu'elle rend mais du service qui lui a été rendu par cela qu'elle a été produite." (*Critique de l'Economie politique*, p. 32.)

121 8. It has been objected that a work of art differs from a taro in that the former is a statement about patterns in the universe while the latter is not. My own view of taros, however, is that in the sense of Hjelmslev, they ought to be regarded as sign as well as substance; as signs, which they are whenever handled ritually, they do contain statements about the universe. On the semiotic issues involved see Hjelmslev (1953), Schwimmer (1977a, 1977b).

114 9. For relevant ethnographic data on Orokaiva, see Williams (1928, 1930); Waddell and Krinks (1968); Schwimmer (1967, 1969, 1973, 1974a, 1979a). For specifically semiotic investigations on Orokaiva, see Schwimmer (1974b, 1977a, 1979a, 1979b.)

121 10. Searle-Chatterjee demonstrates that group identity among the polluted caste groups remains firm and positive. It appears to be threatened only by the attempted suppression of the notion of caste by the central government. If this should ever succeed, caste identity would be threatened, because public belief in its toughness, hotbloodedness, honour etc. would be lost.

11. While I have learnt a good deal from Parry's fascinating analysis of the Mahabrahmans, I wish to dissociate myself from Parry's comments on Louis Dumont, as it would not be very difficult to reconcile Parry's findings with Dumont's theory.
12. I wish to acknowledge a debt to Mr. Edwin Ardener who suggested this argument to me during conversation at the York conference. He is not responsible, of course, for what I did with it. A rather similar point is made by Dumont (1977: 118, 182).

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

462
464

TABLE II/5

SIVEPE: THE DIVISION OF LABOUR BY SEX
(*Source*: Waddell and Krinks 1968: 100)

	Men	*Women*
Total hours active	13,934	15,041
Total weeks present	349.7	363.1
Mean activity week	39.8	41.4

Activity	*Total hours*	*Percentage contrib.**
Men		*Men*
Rubber – harvest	157.4	100
Recreation	194.7	97
Hunting	1,289.3	93
Preparation of tools & equip.	198.1	91
Church work	182.0	88
Construction	1,160.5	87
Coffee – market	77.9	85
Other crops – plant	41.8	84
Sago-making	319.7	81
Yams – plant	225.4	81
– maintain	45.3	79
Purchasing	273.6	77
Taro – plant	1,714.9	75
Social obligations – other	732.7	73
Women		*Women*
Sweet potato/yam – market	51.2	100
Cooking	3,442.0	97
Sweet potato – harvest	900.2	92
Care of the sick	172.5	90
Taro – market	54.3	90
– harvest	2,133.4	87
Washing	117.5	75
Both		*Men*
Rubber – market	36.1	66
Fencing	45.7	64
Coffee – harvest	353.1	62
Miscellaneous	260.6	62
Clearing	2,614.7	61
Coffee – maintain	74.5	60
Social obligations – marriage	32.7	60
– visiting	873.9	56

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all.

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor.

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tuugu* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills.

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/6

462 DIVISION OF LABOUR BETWEEN THE SEXES AMONG THE OROKAIVA IN 1923

(*Source*: F. E. Williams Papers W.5, dated Wasida 5.10.23)

Women
- Planting and small cleaning in garden
- Fishing for small fish
- Cooking
- Cleaning house and surroundings
- Pottery
- Bark cloth and painting of same
- Look after pigs and dogs
- String bags
- Mourning vests of Job's tears
- Mourning neck ornaments, of Job's tears
- Armlets of Job's tears
- Make shell and string belts

Men
- Clearing of gardens
- Hunting
- Large fishing
- Building
- Make spears
- Make clubs
- Make cane belts
- Make woven armlets and leglets
- Make shell and string belts
- Make wooden belts

Day's work of woman
(Ejiro of Borugata)
- Sometimes in garden . . . sometimes in village . . . but more often than not goes to the garden
- Going in the morning she will clean . . . plant . . . dig up taro . . .
- In afternoon she collects firewood . . . water (in a gourd, scooping it in with a folded leaf), . . . taro, etc. in her string bag (*eti*) and return 'at four o'clock'.
- Then she cooks for husband and children . . . after that *kaikais* betel and stops nothing

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 ground, and with harvesting, which he may not do. Upon marriage, the new wife
241 is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the
[581] land of her new affines. Her mother-in-law has to instruct her and it is only after
[585] such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

423 As against these male and female obligations, we may note some clearcut
593 rights: the man's right to his wife's labour and the wife's equally important right
241 of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food
[578] supply so as to avoid shortages. A domestic dispute I observed in Sivepe
[596] (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

[431] This brief discussion of social practices has already indicated that a garden
[462] plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the
423 light of rituals, myths and indigenous explanations. It will be best to begin with
241 some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom
[562] land may be assigned may be either male or female. Among the Orokaiva it is
[462] common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the
[789] crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*iwo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and
[775] the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

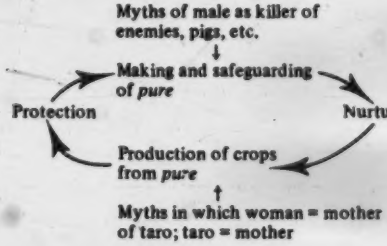
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

child into the water because it was bad,' she replied. 'I am going to collect cabbage.'

(*Commentary*: The reference to the water is the first of a series of apparent lies which always hide a symbolic truth. In this case it is easy to see the meaning, as several myths exist linking the origin of the taro with water. In one myth a woman was prodding the ground with a digging stick. She found water there (and this was the origin of water); later taro grew in that spot. In another myth a boy and girl who were siblings were washed away in a flood on a coconut tree. At the place where they finally landed they discovered taro. Taro, being identified with a human child, is thought of a growing in the water of the womb. The growth of the taro plant requires a very great deal of water and heavy rain so that the growing plant actually lives in a watery environment, which thus resembles a womb. In this sense, her statement is true.)

4. 'I am going to collect cabbage.' Having said this she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said: 'Wife why did I see you cry when you climbed to collect cabbage?' 'When I went to collect the cabbage the sap squirted into my eyes and I rubbed them,' she said. 'You are lying,' he said.

5. When the children were fully grown, she took them to the mountain far away. She told them their history; 'therefore, I must leave you behind and you must stay,' she said. When she joined her husband again, he asked: 'Why did you stay away so late?' 'As soon as I had done my work and planted my seed (*bere kovitie*), I started on my way home,' she said. 'Woman, you are telling lies,' he replied. When the man understood what his wife had been saying, he went away.

(*Commentary*: When a taro is fully grown it begins to grow shoots on the side of the main rhizome. It is then the duty of the woman to take cuttings from the plant. Strictly speaking these cuttings (Orokaiva: *bere*) are tops of corm-bearing bases of petioles (*Vide* Barrau 1965). These cuttings[1] are taken to a new garden being established, usually, at some distance from the old one. When the husband heard his wife saying this, he understood at once that she had been hiding the offspring she said she had thrown into the 'water'. He could not know, however, that his wife had had twins and this became his undoing.)

6. The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling (*du ate*) had gone to collect taro while the male sibling (*du bite*) was lying asleep with his chest turned upwards in the shelter (*gegu*). It was there that the man found him, understood at once he was his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

(*Commentary*: I do not know whether the narrator of the myth made a mistake when he said at the beginning that the hidden children were 'male twins'. There is no doubt whatever that at the stage the story has now reached they are siblings of opposite sex. While we cannot rule out the possibility of a narrator's mistake, my informant was an unusually reliable one and it is quite possible that there was an actual change of sex. This will become clearer later when we analyse the significance of male and female roles in this tale. The horticultural reference in this passage is to ordinary harvesting routine. The woman digs the taro and places them in a *gegu* or shelter where they stay until

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *guga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *guga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *guga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

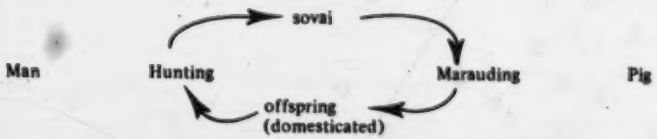
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
[788] calls of its mother. It learns to forage in disused gardens but keeps away from
[775] growing taro. The piglet will not stray too far into the bush but comes home every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of
[462] prestations between the sexes, for it is a task women customarily perform for close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts
231 at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[171] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

	Areca		*Coconut*
1(*a*)	The man fetches the nuts from the tree.	1(*b*)	The woman *helps to fetch* the nuts from the tree.
2(*a*)	The man gives the nuts to the woman.	2(*b*)	The woman cooks the nuts for the man.
3(*a*)	The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*)	At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

466 days per year on the plantation of his village.(1) Those who
worked 60 days or over were thereby exempted from head tax
245 (then ten shillings per year). Those who did not were liable not
651 only to head tax but also to a fine of £2 or imprisonment with
hard labour for a period of three months.

Evidence is inconclusive as to how much work was
245 required in practice. Despite the reference to sixty days' work
466 per year, crops like coffee needed constant attention and if only
sixty days per year were to be performed by each man, either
work days would need to be staggered or workers rostered. At
first government officers required 120 half-days, but in most
villages once the crops were in bearing all men were required
to attend every morning from Monday to Friday throughout the
year.(2) None of the foremen had watches and it is impossible
to know how long men worked in fact, but informants in widely
separated parts of the area claim that they were required to
work until noon in the coffee gardens. In addition, men took
turns to carry the produce on foot to the government base at
Higaturu every Saturday. This involved a walk of about fifteen
miles in each direction from the Ongoho (Asigi) community
block.

462 Women took no part in cash cropping, but they did
most of the gardening. Men sometimes helped in the food gar-
dens in the afternoons.

657 Reports of the period contain many references to the
peoples' lack of enthusiasm for the scheme and heavy sanctions
245 were applied by government officers to have their programme
466 enforced. In 1925 the Resident Magistrate tried to extend the

(1) Men who had been away as indentured labourers were exempt from this requirement for three months after their return to the village.

(2) At several places near Higaturu people claimed that they were required to work afternoons also during busy periods. After such periods they would be allowed a week or more off with no plantation work. It seems likely that this was done in the villages close to Higaturu which were under closer supervision by the officer in charge of the plantations. In the more distant areas the officer seems not to have delegated any authority to vary the regular pattern. Humphries (1944 : 3) notes that the specified period of 60 days (he says three months) was not observed in practice and that "in fact men were called upon to work whenever circumstances required them".

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654] [435]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together to their gardens, but each household then cultivates its garden [462] alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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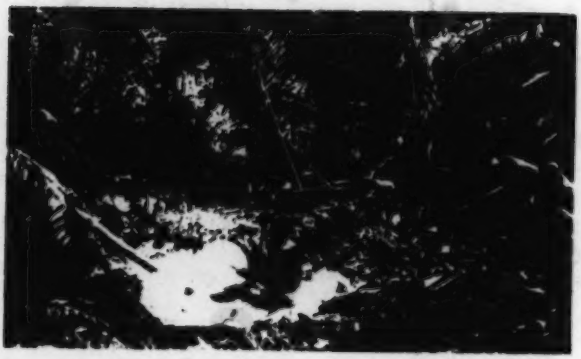

Plate 3. Sago-making - possibly the most arduous of subsistence tasks and invariably a group enterprise.

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Plate 4. Sivepe - women are responsible for keeping the central area free from weeds and refuse, as part of 'Council work'.

252 gardens. If absolutely necessary it will be made without outside [461] assistance, such being the case with one household with inadequate food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data [262] gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 (iii) Marketing of subsistence produce. This is only a minor 512 activity amounting to 0.3 hours per man-week. Food crops may be sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so [432] low that there is no systematic production of food crops for sale to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20.A

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A,[See Category 435, p.20--Analyst]

433 hunting. The little time devoted to the preparation of tools for
512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others.
[342] This 'crude birth rate' suggests the life of a house to be about 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
431 A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

of individual circumstances rather than degrees of specialisation. While cash cropping households are clearly more active than the others, the substantially greater time they devote to the external sector accounts for the differential and they are no less active within the subsistence sector than their non-cash cropping counterparts. This is clearly demonstrated if household 12 is excluded from the calculations.

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Table 6:6

Sivepe: contrasting activity patterns of cash cropping and non-cash cropping households*
(hours per man-week)

	Subsistence sector		External sector		Total
	'productive'	'non-productive'	'productive'	'non-productive'	
Mean	26.7	3.4	2.5	7.5	40.1
Cash croppers	26.9	3.3	3.3	8.8	42.3
Non-cash croppers	26.7	3.5	1.2	4.9	36.3

* Household 12 excluded.

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The division of labour

(i) By sex. Although there is little variation in length of activity week between the sexes, the men distribute their time more evenly through a broader range than the women who tend to confine their attention to a few specific tasks (see Fig.6:7). Sixty-one per cent of the women's time is devoted to subsistence gardening and household tasks compared with only 29 per cent for the men; however, the latter give substantially more attention to clearing, other subsistence food production and other subsistence activities than the women (11.5, 10.9 and 8.6 per cent respectively compared with 6.7, 1.6 and 1.1 per cent) while retaining subsistence gardening as quantitatively the most important of their grouped activities. Consequently the broad allocation of time between subsistence and external, productive and non-productive activities does not differ substantially for the two sexes; the men spend 69.8 per cent of their time on productive activities and 70.3 per cent on subsistence and the women 76.3 per cent and 77.0 per cent respectively. Rather it is a matter of the women concerning themselves essentially with the daily routine of harvesting and preparing the staple foods for consumption while the men turn to the more irregular, and frequently more arduous tasks such as house construction, hunting and sago-making. In part, no doubt, this pattern reflects the formal authority structure in the household in that the men delegate responsibility for meeting routine needs to the women while they

[TEXT CONTINUED ON PAGE 101]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 6:7

Rivers: the division of labour by sex

	Men	Women
Total hours active	13,934	15,041
Total weeks present	349.7	363.1
Mean activity week	39.8	41.4

Activity	Total hours	Percentage contribution*
Men		**Men**
Rubber - harvest	137.4	100
Recreation	194.7	97
Hunting	1,289.3	93
Preparation of tools and equipment	198.1	91
Church work	182.0	88
Construction	1,160.5	87
Coffee - market	77.9	85
Other crops - plant	41.8	84
Sago-making	319.7	81
Yams - plant	226.4	81
maintain	45.3	79
Purchasing	273.6	77
Taro - plant	1,714.9	75
Social obligations - other	732.7	73
Women		**Women**
Sweet potato/yam - market	51.2	100
Cooking	5,442.0	97
Sweet potato - harvest	900.2	92
Care of the sick	172.5	90
Taro - market	54.3	90
harvest	2,133.4	87
Washing	117.5	75
Both		**Men**
Rubber - market	36.1	66
Fencing	45.7	64
Coffee - harvest	353.1	62
Miscellaneous	260.6	62
Clearing	2,614.7	61
Coffee - maintain	74.5	60
Social obligations - marriage	32.7	60
visiting	873.9	56
Paid work	1,128.8	56
Other crops - harvest	1,109.0	54
Sick - personal	442.6	53
Yam - harvest	412.6	53
Coffee - process	398.4	53
Collecting firewood	234.1	52
Social obligations - mourning	783.9	51
Other crops - market	84.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro - maintain	2,531.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

concern themselves with the prediction of future needs, or with the catastrophic aspects of the food cycle, and therefore with activities directed towards fulfilling these.

So, at the level of specific tasks, a clearer division of labour emerges, although even here there are few important activities exclusively the concern of one sex as Table 6:7 demonstrates. While subsistence gardening is largely the women's concern two tasks

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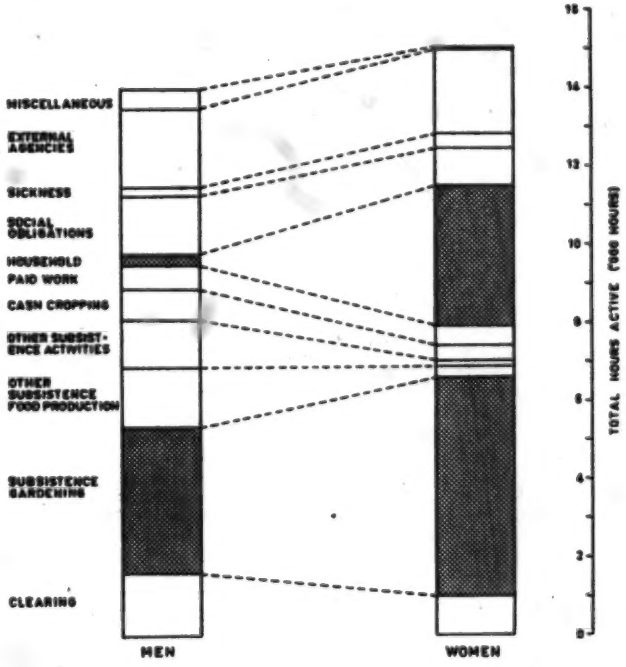
SIVEPE
DISTRIBUTION OF TOTAL ACTIVITY TIME BY SEX FIGURE 6:7



predominate - the maintenance and harvesting of taro - which together account for 22.9 per cent of their activity time. Men do most planting of taro and are primarily concerned with the cultivation (including harvesting) of both yams and the minor crops. The labour of harvesting yams is shared with the women, although the men direct the operation since yams are a food crop of considerable social and economic importance, and are stored against future needs. Many of the minor crops are tree crops - areca, coconut, breadfruit, etc. - and the fact that men are more adept at harvesting them largely accounts for their greater involvement.

Clearing, although both arduous and designed to cater for long-term food requirements, is something of an anomaly in that only 61 per cent of the time expended is contributed by men. However, the women's role is subsidiary, the men being responsible only for the initial clearing and burning, and the women cleaning up the debris and piling it around tree stumps to burn again.

The fact that most marketing of subsistence crops is done by women may be viewed as a logical extension of their gardening activities. The few marketed by men - areca, tobacco, etc. - are considered male crops and a woman would not normally harvest them. But contrast, the marketing of cash crops is dominately a male concern, with the women contributing to the harvesting and processing of coffee on account of its very high labour requirements.

The single most time-consuming activity carried out by either sex is cooking, accounting for 22.1 per cent of the women's activity time. Ninety-seven per cent of all cooking is done by women, the only exceptions being the preparation of meat at feasts or for 'marketing'.

With the exception of parties which mainly attract the young men, both sexes are involved to much the same degree with social obligations and likewise there is little distinction according to sex in connection with the external agencies. Finally, care of the sick concerns women more than men only because it is they who take children to the infant welfare clinics.

(ii) By age. While there is not, strictly speaking, any division of labour according to age, there are significant variations in both the general level of activity and allocation of time. These patterns reflect both the customarily defined responsibilities of the several age groups and their diverging interests in the contact situation. Table 6:8 shows the oldest and youngest age groups to be the least active. The reasons for this need no elaboration. The limited involvement of young people in village life gives them time and opportunity for other pursuits: for the 15 to 24 years age group temporary absences accounted for 10.3 per cent of survey time and 6.5 hours per man-week were spent in paid work, but only 7.9 hours in subsistence gardening, the dominant activity of all other age groups.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Plate 5. Men are responsible for the initial clearing of a new garden site. Boys acquire the appropriate skills by assisting their elders.

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Plate 6. Women are responsible for the final preparation of the garden site prior to planting. Here, following an initial burn, the debris is being piled around the tree stumps and larger timbers to burn them a second time.

484 Sangara. Finally, movement directly related to the external agencies and sickness is proportionately greater than for all other activities apart from the two exceptions noted. In general, travelling times appear to reflect a significant expansion in the village oecumene following contact. Further, in those activities specifically related to this expansion there is a lower level of efficiency in so far as travelling is concerned, since there has been no parallel development in the modes of travel.

461 Detailed time and motion studies of a limited number of activities were conducted in order to acquire a better understanding of the utilisation of activity time in areas other than travelling and of the level of productivity within the framework of the existing economic system and technology. A total of 28 man-instances were surveyed, the activities comprising clearing, several subsistence gardening tasks, sago-making, house construction and coffee harvesting. The results are presented in Table 6:12. The main feature they demonstrate is that the various productive tasks (Main, Ancillary and Other) carried out within the duration of a single activity amount to only 49.3 per cent of the total time devoted to that activity; and 27.4 per cent of the total time is accounted for by resting and eating meals. The time spent in resting increases with the intensity of effort and exceeds 50 per cent in sago-making, productive effort being proportionately reduced. However, in this case the increased leisure time is compensated for by a large work group so that it is possible to maintain a high rate of sago production.

[462] While acknowledging the small number of observations, tentative patterns may be discerned within the sample according to sex, age and cash cropping status. Men concentrate more on the main task than women, as the latter also are responsible for preparing any food during the course of the work, washing the children and doing such minor tasks as foraging for greens; the 25 to 34 years age group allocates its time in a more productive manner than any of the others, spending 56.3 per cent on the main task and only 16.1 per cent on resting and meals; while cash croppers appear to use their activity time more productively than non-cash croppers. The cash croppers spend 64.9 per cent of activity time on the various productive tasks and only 17 per cent in leisure compared with 36.3 per cent and 36 per cent respectively for non-cash croppers. This clear distinction is in part a function of the frequency of sago-making by non-cash croppers, but if this activity is excluded the figures for cash croppers become 64.2 per cent and 15.5 per cent respectively, and for non-cash croppers 47.3 per cent and 23.9 per cent respectively; thus the distinction, if somewhat modified, persists. Furthermore, it must be recognised that some cash croppers at least, with their higher cash incomes, have less need to make sago during the dry season since they can supplement their diet with storebought foods.

Table 6:12

Sivopa: the allocation of time within activities.
A detailed analysis of twenty-eight occasions covering nineteen individuals and a breakdown according to age, sex and cash cropping status
(minutes and per cent)

			Travel	Rest and meals	Main task	Ancillary tasks	Other tasks	Cooking	Washing	Total
Whole sample	(28)*	Mean duration	42	72	102	15	14	17	3	265
		Per cent	15.8	27.4	38.5	5.7	5.1	6.3	1.2	100
SEX Males	(14)	Mean duration	41	74	118	26	12	-	-	271
		Per cent	15.1	27.4	43.5	9.5	4.3	-	0.1	99.9
SEX Females	(14)	Mean duration	42	70	85	4	15	33	6	255
		Per cent	16.5	27.4	33.2	1.6	5.9	13.0	2.4	100
Cash cropper	(16)	Mean duration	32	36	106	14	16	5	2	211
		Per cent	15.1	17.0	50.6	6.5	7.8	2.3	0.8	100.1
Non-cash cropper	(12)	Mean duration	55	121	96	17	10	33	6	338
		Per cent	16.4	36.0	28.4	5.0	2.9	9.7	1.6	100
AGE GROUP 15 to 24	(2)	Mean duration	21	181	49	12	-	126	28	417
		Per cent	5.0	43.5	11.7	2.9	-	30.2	6.8	100.1
AGE GROUP 25 to 34	(8)	Mean duration	24	29	101	1	12	10	3	180
		Per cent	13.4	16.1	56.3	0.6	6.6	5.3	1.7	100
AGE GROUP 35 to 44	(8)	Mean duration	33	53	132	36	1	6	-	261
		Per cent	12.6	20.3	50.7	13.8	-	2.2	-	99.6
AGE GROUP 45 to 54	(9)	Mean duration	72	69	99	10	31	10	1	292
		Per cent	24.5	23.6	34.0	3.5	10.6	3.6	-	99.8
AGE GROUP 55+	(1)	Mean duration	30	390	-	10	-	-	-	430
		Per cent	7.0	90.7	-	2.3	-	-	-	100

* Indicates number of man-instances observed.

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461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait [592] is clearly reflected in their work patterns. The household, comprising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]

Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site, [476] and as such they are normally seen to comprise less than two adults. The main exceptions are activities where collaboration is specifically

[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 115]

461 [476] required, in particular sago-making and house construction.[1] In the case of the former about eighty man-hours per day should be expended on a mature tree if the sago is to be produced before spoiling,[2] while in the latter assistance is specifically needed to erect the timber frame and put the roof in place.

Some social significance can probably be ascribed to other activities with a mean size of work group exceeding 2.0 persons. This applies particularly to the preparation of roofing sections and to fishing, both of which have an important recreational component either in the form of conversation or 'picnicking'. In the case of yams, where the mean size of work group is 2.3 persons, the tuber is considered harder to harvest than taro because it develops at a greater depth, and larger quantities are harvested at a single time for storage. However, as with sago-making, an important consideration in rendering assistance is undoubtedly that the service will be reciprocated either immediately or subsequently with a quantity of the foodstuff involved. Both are perceived as 'hard' work and the question of cost-benefit is therefore seriously considered in deciding whether to render assistance. The difficulty experienced in mobilising a sago-making work group when there is no widespread shortage of food is evidence of this.

[462] The large work groups associated with the marketing of the two main subsistence crops, taro and sweet potato (4.3 and 2.6 persons respectively), are to some extent misleading. In virtually all cases the marketing was done at Saiho by women, each selling her own produce. The approach to marketing these crops is very different from that of cash crops - one woman decides she will take some produce to Saiho and a number of others then decide, very much on impulse, to follow suit.

Relatively large work groups are associated with a number of cash cropping activities. This is particularly true of coffee,

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[1] In fact these activities comprise a number of distinct tasks and if we are to be consistent in our categorisation we should therefore speak of 'taro-producing' rather than isolate the several tasks involved. Then, given the type of work allocation and sequence described above, the work groups associated with taro-production approach those of sago-making and house construction. In spite of these apparent inconsistencies in the method of categorisation, the fact remains that taro-producing activities are not necessarily collaborative and they are distributed over an extended period, while collaboration is actively sought (and required) in the other cases and the activities are restricted to a much shorter time span.

[2] If a household decides to extract sago without outside assistance an immature tree is normally felled.

512 461 week of 45.8 hours. Likewise 68 per cent of the 18.7 hours spent in subsistence gardening is confined to taro cultivation and 70 per cent of the 13.0 hours on household tasks to cooking. Apart from clearing, in which women are responsible for 'sweeping' up the debris and much of the secondary burning, the time Olga devotes to the other productive subsistence activities is minimal.

Sixty-four per cent of the time spent on social obligations comprises visiting, an even greater proportion than for Gorukari although Olga did not change her place of residence at marriage.[1] One of her married daughters lives in a village about half an hour's walk away and, with her husband away in the police force in Port Moresby, there is a great deal of inter-visiting.

Although without cash crops of his own, Olga's husband worked some coffee belonging to their eldest son during the year, the son in turn confining his cash cropping to the rubber. [462] Olga assisted her husband largely in pulping and drying the parchment and in its subsequent marketing. However, her involvement with the external sector of the economy is largely confined to the external agencies, particularly the church. On account of her household responsibilities she is seldom away from the village for more than a night or two at a time, while the emphasis placed on subsistence activities (83 per cent of her total activity time) results in both her and Gorukari's spending more time on them than either Linton or Palminus, in spite of the latter having longer activity weeks. Finally Olga spends less time on non-productive tasks - only 21 per cent compared with 26 per cent in the case of the two men.

Rodney Gill. Rodney Gill is Gorukari's husband's brother and, at the age of 18 years, the eldest child still residing with his parents. While both parents are often disabled through sickness and rely on the support of Gorukari and her husband, Rodney Gill's behaviour pattern does not suggest any tendency to assume domestic responsibilities. With a mean activity week of 43.7 hours he spends only 48 per cent of his time in subsistence activities and 53 per cent in productive work. Typically, adolescent aspirations are directed to wage employment and many young men leave the village. Of the six males in the 15 to 19 age group at the beginning of the year, one joined DASF at Popondetta

[614]

1 She is a member of Arehu lineage, Jegase clan, and her husband a member of Berekipa lineage of the same clan. Intra-clan marriages are not uncommon, a contributing factor in this instance being that Olga is believed to be descended from a Togahau war captive (Rimoldi: personal communication).

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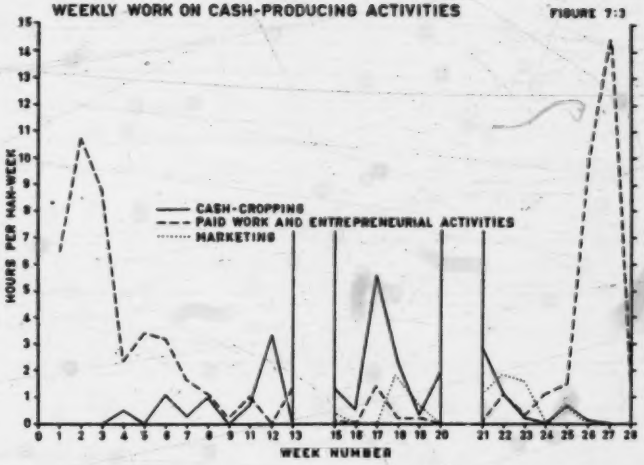
INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



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The gathering of forest plants receives more attention during the dry season to compensate for lower garden production. The increased dietary significance of such plants at this time is, perhaps, understated in Table 7:3, since women often collect green leaves beside paths while walking to or from other activities and such gathering may not be recorded. In addition, a considerable amount is gathered by children. Hunting also increases during the dry season, with the increased number of wild pigs. However, a significant factor in 1964 was the acquisition of a shotgun in July by the leading man (with financial assistance from others, who thereby acquired rights of use). From this time, hunting to obtain meat for both food and marketing increased, becoming most popular during period III when marketing also was most frequent. Due to the drop in water levels, the time devoted to fishing during the dry season is much less than in the rest of the year, but over the year as a whole, more time is spent in it than in any other single activity.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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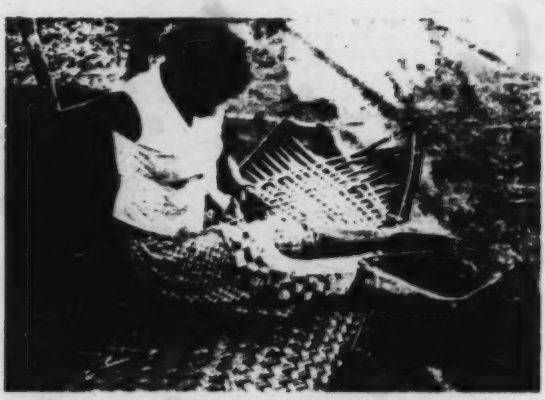

Plate 7. Women spend many hours making string bags.

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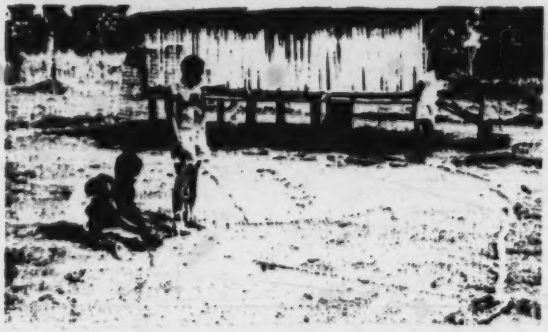

Plate 8. Men from Inonda and Hosou villages repairing a large fishing net preparatory to an all-night fishing expedition.

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(ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

[342]

The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

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Table 7:4

Inonda: adjusted mean weekly activity over survey period
(Adjusted with additional data on household tasks)

Mean number of man-weeks	Hours per man-week	
	Household	Total
14.7	10.1	49.9

(b) The external sector

In total, subsistence activities, including household tasks as adjusted above and excluding construction oriented towards cash income, occupy 34.8 hours per person per week. Cash-producing activities - cash cropping, paid employment, entrepreneurial activities, marketing of game and construction of the copra-drier - together occupy 4.5 hours per person per week. Unlike most of the subsistence activities, not everyone engages in cash-producing activities. Some men did not obtain paid work during the survey period and there is only one man with the experience and confidence to operate as an entrepreneur. Women may assist husbands and kin in cash cropping and sell produce in the market on their own account but they do not engage in paid work (though some had, in the past, worked as domestic servants on a nearby plantation). However, taking the village data as a whole, an individual spends an average of 39.3 hours a week on productive activities in both the subsistence and the monetary sectors.

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(i) Cash cropping. The average time devoted to cash cropping is only 1.0 hours per man-week. Although the survey excluded much of the coffee harvesting and selling season, the figure would be only a little higher if these had been incorporated. Only one household harvested and processed coffee during the survey; if the other two households with mature trees had also done so at the same rate, the overall average time on cash cropping would be raised to 1.4 hours per man-week. The most intensive work was carried out on copra in the dry season, when harvesting and processing occupied a mean 1.3 hours per man-week over that period. Unfortunately, much of this time was wasted. When the drier was finished, it was decided that copra-making should be a communal project and the villagers spent a total of 82.6 hours, most of this in three days, collecting and splitting some 410 coconuts, laying out the flesh and maintaining a fire. On the fifth day, the fire was stoked with husks instead of wood and shells and the copra was spoiled by the thick smoke. The following week the women refused to assist the men for more than a few minutes, since their previous labour had been wasted. The men spent 10.8 hours harvesting more coconuts and assistance from the researchers saved them 1 hour in transporting

592 exchange network and they must use cash and storebought goods to
512 compensate for this.

[461] Few households differ greatly from the average in the amount of time they devote to household tasks. The widower, like most men, seldom cooked, whereas in household 18 the widow's son was rarely
[462] present and the mean weekly time spent in household tasks is strongly influenced by the time spent in cooking by the widow. Household 16 appears to spend less than the average time since it contains two men as well as the wife's mother, who does not cook as often as her daughter. The small amount of time spent by household 22 is probably due to the fact that the members had comparatively few clothes and so little time was spent in washing.

164 As mentioned, much of the time shown as spent in sickness involves visits to the aid post and particularly to the fortnightly infant welfare clinic. Households containing small children, then, appear to spend most time in sickness. When days, rather than hours of sickness (including periods spent outside the village at hospital or the aid post), are taken into account, it is the households containing people over 45 that are most often sick. Household 24 spends on average 1.3 days per man-week in sickness. In addition to regular fevers, the household head suffered an anal prolapse in August and he and his wife spent the last 19 days of period II at Saiho hospital. Households 18 and 19 have the next highest sickness rates. Household 16 also has a comparatively high rate, largely because of the presence of the wife's aged mother but also because the whole household was sick with influenza during most of the last two weeks of the survey. All of the other households spent less than half a day per week in sickness.

592 There is not much difference between households in the amount of
512 time spent on social obligations. The widow and the wife of the head of household 21 spend rather more time than others in visiting, while the entrepreneur's household, (23), and the widower do little, and the latter was also unable to attend two feasts on account of sickness.

592 In addition to differences in activity patterns between the in-
512 dividual households, certain distinctions appear between cash
461 cropping and non-cash cropping households as groups. As is to be expected, cash cropping households spend more time in planting and tending commercial trees. Non-cash cropping households spend only 0.2 hours per man-week in cash cropping, assisting others and working on the copra project, but even cash croppers spend an average of only 1.5 hours per week on their trees. The two categories devote a similar amount of time to paid work and entrepreneurial activities - primarily because the Jego'undi man's period of work on the settlement block was intensive enough to outweigh the effect of the older non-cash croppers, who did no paid work. On average, people in non-cash cropping households spend 3.5 hours more per

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is without taking the separately-recorded days of sickness into account. [757] In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as irongo as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

Inonda: days spent in sickness per man-month

164

	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 The division of labour: the influence of sex

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

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462

Table 7:8

Inonda: the division of labour, by sex

	Men	Women
Total hours active	9,373	9,787
Total weeks present	200.4	181.0
Mean activity week	46.8	54.1

Activity	Percentage contribution*	Activity	Percentage contribution
	Men		
Clearing	74	Copra - market	100
Fencing	86	Other product - market	79
Sweet potato - plant	81	Purchasing	85
Yam - plant	89	Entrepreneurial activities	99
Minor crops - plant	77	Paid work	100
Coffee - plant	67	Hunting	97
Sweet potato - weed	69	Sago-making	79
Minor crops - weed	78	Construction	91
Coffee - maintain	75	Church work	75
Coconuts for copra - maintain	86	Sick - personal	81
process	70	Recreational	68
Coffee - process	77	Miscellaneous	70
	Women		
Taro - weed	69	Preparation of tools and equipment	76
Taro - harvest	94	Cooking	98
Sweet potato - harvest	83	Washing	73
Forest products - gather	68	Care of sick	83

Activities when contributions made by men and women fall within the range 34 to 66 per cent:

Taro - plant	Minor crops - harvest
Yam - weed	Fishing
Yam - harvest	Council work
Cocoa - maintain	Church services
Copra - harvest	Social obligations
	Collecting firewood

* Where one sex carries out more than two-thirds of the work.

462

sago-making and constructing houses. They also perform most work on cash crops and tend to carry out the larger share of nearly all other activities related to the external agencies, with the exception of attendance at the infant welfare clinic, church services and council work. As well as predominating in the latter three activities, women do most weeding of taro, though not of other crops, and most harvesting of subsistence crops and the household chores. As a result of time spent in cooking, women tend to be active for at least one hour per day more than men.

Table 7:9

Inonda: the pattern of activity for each sex

Men	%	Women	%
Productive activities			
Fishing	10	Cooking	34
Clearing	9	Harvesting taro	8
Paid work	8	Weeding taro	6
Hunting	8	Fishing	5
Construction	8	Washing	4
Planting taro	5	Preparing tools and equipment	4
Sago-making	4	Harvesting minor crops	4
Fencing	3	Planting taro	4
Harvesting minor crops	3	Clearing	3
Entrepreneurial activities	3	Harvesting sweet potato	3
Weeding taro	3	Gathering	1
Purchasing	2	Sago-making	1
Preparing tools and equipment	1	Other	5
Planting minor crops	1		82
Marketing	1		
Planting sweet potato	1		
Maintaining coffee trees	1		
Other	8		
	79		
Non-productive activities			
Visiting	5	Miscellaneous ceremonies	4
Miscellaneous ceremonies	4	Visiting	3
Miscellaneous activities	3	Council work	3
Sick	2	Care of sick	3
Council work	2	Religious services	2
Religious services	2	Miscellaneous activities	1
Other	3	Other	2
	21		18
	100		100
Mean hours active per week	46.8		54.1

Table 7:9 shows the activities that consume most time of men and women separately, and of the nine most important activities for each sex, only fishing, planting taro and miscellaneous ceremonies appear for both men and women. Apart from planting taro and forest clearance, garden tasks account for a comparatively small proportion of men's time. The other food-producing activities have greater significance, with fishing, hunting and sago-making accounting for over one-fifth of the total time spent by men. It is striking that paid work is the third most important category of activity for men in general, even though the entrepreneur spent only a few hours and the widower no time at all in this way. Since five of the eleven men are in the youngest age group, this group's patterns have a marked influence on the pattern for men as a whole and largely account for the significance of fishing, visiting and miscellaneous ceremonies.

Garden tasks, particularly the maintenance and harvesting of taro, are much more important for women than for men. However, cooking is by far the most time-consuming activity for the former and the other main household chore, washing, is fifth in importance. Much of the time that women spend in fishing is with their husbands but they do fish alone - generally with small nets - while returning from the gardens. As described above, most of the time spent in preparing tools and equipment is for string bags and pandanus-leaf sleeping-mats.

There is no specialisation of labour according to age. The main apparent differences are that young people (under 25 years) tend to spend more time in non-productive activities such as visiting and miscellaneous social ceremonies, whereas those over 45 have a more restricted range of activities and devote a higher proportion of their time to gardening.

The weekly pattern of activities

As in Sivepe, there is a semi-official, ideal pattern of work allocation through the week. Monday and Tuesday are said to be for cash cropping, Wednesday for mission work, Thursday and Saturday for subsistence gardening, Friday for council work and Sunday for rest. Although this ideal does have some bearing on behaviour, the actual pattern is much less clearcut.

As Table 7:10 shows, clearing, fencing and cultivation of subsistence gardens take place throughout the week and only a slightly smaller amount of time is devoted to these activities on Sundays than on other days. Cash cropping receives most attention on Mondays and Tuesdays as in the ideal pattern, but it is still quantitatively much less than the attention given to subsistence gardening or to other food-producing activities. On these days cash cropping accounts for 5 per cent of total time spent, compared with 2 per cent over the week as a whole. Church work takes place

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512 criticised by her husband and by others, particularly when her husband's mother was sick at the aid post and he was left with no close relative to perform household tasks. Social obligations and other generally non-productive activities account for 33 per cent of the total time that Marjorie spends on her activities, compared with 20 per cent for the village as a whole, and the mean length of her working week was less than 42 hours compared with the village average of almost 49 hours. Apart from household tasks, the most important productive activity is harvesting of subsistence crops. Over half of this time is spent on taro and the rest on sweet potato, yams and minor crops. The other aspects of cultivation and clearing bring the total time on subsistence gardening to almost 11 hours [562] a week; only taro receives any maintenance. Fishing - usually with a small net, in [462] contrast with the spears used by men - is the most time-consuming of the other food-producing activities, although she also assists her husband in sago-making. Other subsistence activities are restricted almost entirely to making string bags and pandanus-leaf sleeping-mats.

The average weekly time Marjorie devoted to cash cropping equals that of the entrepreneur. She helped her husband establish a coffee garden and worked with the other villagers making copra. However, the time she spends in cash cropping is less than that spent in other activities related to external agencies. Of such activities, over one-third is on council work and almost one-third on meetings of the Hohota Women's Club; the rest is mostly on church services, since she often goes to the Ijika services held by close [461] kin of hers. In total, these activities and cash cropping account for 14 per cent of her activity time.

Although Marjorie invests sufficient time to maintain the household's gardens, it seems clear from the frequency of her contacts with her consanguineal kin in other villages and from the comparatively low proportion of her time devoted to productive labour that she is less oriented towards her village of residence than are the other wives, all but one of whom also originate from other villages.

Paulus. The younger of Mancho's two sons, Paulus is aged 25, is married to the sister of the leading man's wife and has two sons (a third having died a few months before the survey began). He was educated only to standard 1. Subsequently two and a half years were spent working as a surveyor's assistant in Port Moresby and some months as a labourer (and briefly as a foreman) on the roads near the village. He has no cash crop

512 [461] holdings - his father's coffee plantation of over 100 trees was given to the eldest son - but intends to plant both coconuts and coffee. He sees cultivation of cash crops as preferable to working away from the village since the former guarantee a continuing minimum income, but he believes that paid employment while resident in the village is the best source of cash. After the end of the survey Paulus, Lawrence and two others obtained work in Popondetta, returning home each night. Despite his lack of formal education and holdings of cash crops, Paulus is generally recognised as second in status to the leading man, and when the leader refused to be nominated for re-election as local government councillor, he was asked instead. He was prepared to stand, but eventually declined because of his wife's disapproval. When Lawrence proposed individual working of copra it was Paulus who insisted, successfully, that it should be communal, on the grounds that the others had insufficient palms to make individual working worthwhile. However, having gained his point, he was prepared to leave the sale of copra and the operation of the village savings account to the leader.

[461] On average, Paulus is active for more time per week than any other villager and over 82 per cent of his time is spent on directly productive tasks. He is recognised as the most accomplished hunter in the village as well as being skilled at fishing and, together with sago-making, these food-producing activities account for almost one-third of his activity time. He frequently borrows a shotgun from Lawrence or from kin living nearby and from [434] August onwards often took smoked meat or fish to market in Popondetta. As he has no cash crops his main sources of income are paid work, marketing and gambling, but only paid work consumes more than an average of one hour a week. Apart from the contract work, this includes work on the bridge over the Girua River during the first three weeks of the survey.

Although he spends more time on subsistence gardening than the cash croppers discussed above, Paulus spends much less in this work than the other non-cash croppers. Most time is spent in clearing and in planting and maintaining taro. He is one of the few with a significant number of yam vines, the crop occupying as much of his time as sweet potato [462] cultivation. As is usual for men, harvesting consumes little time, except for sugar-cane and coconuts.

The only other subsistence activity that accounts for a noteworthy proportion of Paulus' time is construction. Although much of this was, in fact, on the copra-drier, he spent

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orpkaiva QJ23

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The pattern of exchanges in relation to the sex and age of sample members

The nature of an individual's participation in the exchange system is directly related to his access to the appropriate goods and services. The criteria of sex and age have already been shown to have an important bearing on roles assumed in the productive system and, since the various goods and services can frequently be associated with specific activities, patterns of exchange are also influenced in this manner.

(i) By sex (see Table 10:13). Since most of the staple food, taro, circulates in a prepared form at the time of the evening meal, its distribution is largely the women's responsibility; so is breadfruit, which serves as a major substitute for taro during the dry season. The men consider their informal sharing of areca and lime to be of a similar nature and function in the exchange system. Thus, in the disposal of abundant subsistence goods, the pattern accords to that of the division of labour associated with them although, since most are in the form of individual exchanges, acquisitions are shared by both sexes. However, the exchange of 'scarce' goods is more strictly the concern of the men. This applies particularly to wild game, pig and to sago. Hunting is primarily a male pursuit, while the nature of the preceding negotiations and the scale and significance of the subsequent distributions of pigmeat and sago dictate that they be handled by the household heads.

The exchange of labour services can also be considered in terms of activity patterns, for subsistence activities featuring large work groups, and therefore requiring extra-household assistance, are male-dominated. Hence it is men who most commonly render assistance. Even in the harvesting of yams, where women do a lot of the work, the activity is organised by the male owner of the garden and therefore the service is offered to him.

The management of cash crops, particularly their marketing, is the men's responsibility, and any assistance in the processing of coffee is directed to them, although over half of it is actually provided by women. The pulping of coffee by hand, though labour intensive and a task of some urgency, is not nearly so arduous as the other major activities associated with the exchange of labour services, and this is the reason for soliciting assistance from women.

Cash transactions are primarily the responsibility of the men but the circulation of storebought goods is largely determined by the nature of their utility within the subsistence economy and the circumstances of their exchange. Thus tools and equipment are handled almost exclusively by men whereas prepared food, personal and household goods are distributed largely by women, although both sexes are involved in their acquisition (i.e. purchasing, receiving of parcels, etc.).

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Table 10:13

Sivepe: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce: total	47	53	100	35	65	100
deviant items:*						
Taro	42	58	100	18	82	100
'Soup'	57	43	100	7	93	100
Sago	60	40	100	90	10	100
Breadfruit	28	72	100	10	90	100
Areca, lime, etc.	52	48	100	71	29	100
Pig (domestic)	95	5	100	94	6	100
Produce of hunting	79	21	100	72	28	100
Cash crops: total	-	-		100	-	100
Labour services: total	88	12	100	66	34	100
of which:						
Cash	92	8	100	46	54	100
Subsistence	88	12	100	70	30	100
Storebought goods: total	45	55	100	40	60	100
of which:						
Foodstuffs and stimulants	58	42	100	37	63	100
Personal	31	69	100	20	80	100
Household	52	48	100	-	100	100
Tools and equipment	90	10	100	83	17	100
Cash	73	27	100	70	30	100

	Men	Women	Total
Number of days surveyed	2,323	2,418	4,741
Percentage of total	49	51	100

* Items deviating significantly from the total for the category.

In effect, apart from transactions associated specifically with cash (and therefore including the marketing of cash crops), exchange patterns manifest a close association with the basic features of the organisation of production in relation to the sexes.

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(ii) By age. Table 10:14 outlines the percentage distribution of goods and services between five age categories and it also compares these distributions with the relative position of each category within the sample in terms of man-days observed. It demonstrates that, in general, the flow of goods and services is regulated by individuals within the 25 to 44 years age bracket, who are the most active within the sample and therefore, presumably,

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The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two [222] main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a ● [462] single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods [342] I and II and the move was completed by the beginning of period III. [824] One-third of the assistance in construction was in making roof-sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

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[1] See pp.235-44.

operations in the cash sector are conducted, in part at least, according to traditional attitudes.

Table 11:16 gives details of labour assistance received from and given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

The breakdown of the totals for the whole survey according to sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1] and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

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Table 11:17

Inonda: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce:			(lbs)			(lbs)
Taro	40	60	5,494	6	94	6,307
Sweet potato	31	69	1,419	17	83	1,235
Yam	36	64	406	19	81	457
Banana	42	58	1,098	34	66	553
Pumpkin	21	79	521	16	84	410
'Soup'	70	30	261	3	97	266
Coconut	48	52	326	56	44	431
Sugar-cane	49	51	546	33	67	662
Areca	42	58	93	36	64	39
Other garden produce	44	56	1,566	26	74	1,089
Fish	49	51	174	71	29	211
Wallaby	81	19	318	85	15	276
Pig	77	23	1,482	85	15	1,923
Other produce of hunting, fishing and foraging	55	45	157	46	54	179
Other weight items	-	100	160	48	52	48
Labour services:			(hrs)			(hrs)
Cash	98	2	52.8	67	33	53.1
Subsistence	88	12	578.4	78	22	386.8
Storebought goods:			($)			($)
Rice	58	42	56.74	33	67	12.94
Tinned fish	67	33	29.98	54	46	6.16
Tinned meat	66	34	17.00	54	46	1.30
Bread	82	18	17.50	89	11	3.08
Sugar	75	25	17.84	100	-	1.62
Salt	48	52	1.24	-	100	0.12
Trade tobacco	71	29	21.24	45	55	2.26
Other foodstuffs and cigarettes	82	18	69.34	67	33	5.80
Clothing	60	40	77.04	55	45	6.70
Cooking utensils	21	79	9.76	-	-	-
Other storebought goods	88	12	42.60	14	86	0.78
Cash	88	12	337.36	90	10	340.70

	Men	Women	Total
Number of days surveyed	1,443	1,339	2,782
Percentage of total	52	48	100

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they [439] acquire less than men in this way) and husbands also give their wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the [556] routine daily exchanges of cooked food. This is true of flour also in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product.

early on Sunday morning, but otherwise Saturday and Sunday are spent in much the same way as the other days of the week. Most people trim the grass and clear away any rubbish around their houses on Friday mornings. This is known as "council work" as it is made mandatory by a council by-law. It takes only an hour or two and not all villagers do these chores at this time.

Although there is some seasonal rhythm in subsistence activities, it does not seem to be very great, and relatively few other activities are affected by seasonal variations. The obligations associated with death, marriage and ceremonial activities seem to have a much greater effect on the patterns of work.

House-building, hunting and bush-clearing are primarily the province of men. Women's work includes weeding, harvesting, and domestic chores. Both sexes co-operate in planting, collecting firewood, stacking and burning dead wood, and foraging for wild foods. Men appear to work jointly with their wives much more in the cash crop gardens than they do in the food gardens.

A brief survey of patterns of work was undertaken for a period of six weeks (from 2nd July to 12th August 1962). Such a short study cannot give any indication of seasonal variations, nor can it be considered as necessarily representative of the year as a whole. In fact, owing to the death of one of the village elders during our stay, a considerable amount of time was spent in mourning and attendant social obligations. But since the beginning of 1959 there have been an average of two deaths per year in the village, and when one considers that the villagers are also involved in deaths of relatives in other villages, in marriages both here and elsewhere, in feasts, church celebrations and other commitments, the amount of time spent in social obligations during this period may not have been unduly out of proportion. The survey was undertaken as a pilot project only, on the basis of which it is proposed to organize a much deeper study of time patterns among the Orokaiva over a

The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

	Men	Women	Average
Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit relatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

463 Seniority of birth. This seemed to be of positive significance
472 for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] Traditional leadership roles. The only position of traditional
[571] leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 Non-traditional leadership roles. It is to be expected that
472 Orokaiva entrepreneurs will hold responsible and respected posi-
571 tions in their community. The table below shows a positive
621 correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

657 423 man since tenure conversion was introduced. It suggests that in situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 423 428 [178] In law blockholders may depart from the traditional pattern of inheritance when disposing of their land. As far as could be ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 423 182 512 The time spent in Ombi was too short to enable any conclusions to be drawn about the effects of conversion on work organisation, but a few general points may be made. There was no set routine in the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 423 182 Husbands and wives worked together on food and cash crops, but I am unable to estimate whether husbands work more on cash crops and wives more on food crops as has been observed at times elsewhere.

[462] Five men were employed on maintenance work on the Popondetta-Kokoda road near Ombi for the full period of our stay, receiving [464] $6.42 a fortnight. The need for cash to pay the Council tax and [465] the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

241 is maintained today because, the Yega say,
423 it makes the work lighter if you have someone
613 to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 The granting of temporary rights to plant
423 a food crop is normal procedure. A right-
[602] holder frequently grants such rights to affinal
[614] kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega
[431] land. He would simply give the right-holder a
[426] gift or, if asked, would lend land in return.

224 The Yega are coastal people and expert
[462] fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by
224 the Yega to exist off their strip of coast; rights
423 to fish over these reefs are held by the clans
614 whose ancestors first discovered them. Any person who catches fish over a reef belonging
[431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowa-
[177] days is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 a) *The shifting-field cycle.* The average
242 length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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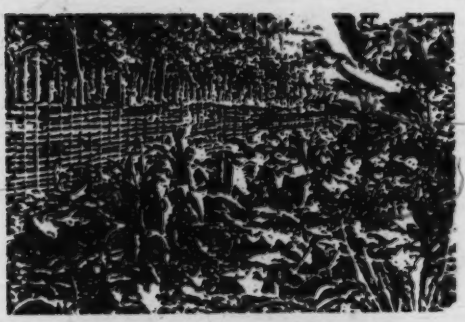

Fig. 6. A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

[224]
[825]

241 c) *Division of labour.* Most garden work is performed by both men and women, but cutting large trees is men's work only, and harvesting is performed by women only. Incidentally, the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

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[482]

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

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[P.9-B]

657 Kumusi Division in which both Sivepe and Inonda are situated. It
364 would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922: [462] 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

364 Beaver, in the report already cited, sets out his concept
361 of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

342 The Pre-contact house was invariably built with a pig
231 enclosure so that man and pig spent the night together. The
657 Australians lost no time in imposing the taboos of their own society: they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under
231 the houses, or elsewhere, as they wished. Since the Local
657 Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepe was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

659 Belshaw makes the following remarks about village development:
361 "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

yet been completed (which was true) and that these ought to have priority. The women then became impatient; after which they explained to me that the women had talked to them insolently and they had told them to build the house themselves (which was a male task; it would have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

About three months before our departure from Sivepe, a mission teacher told me that his wife intended to teach Sivepe women a coastal women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence. I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

At all these practises, the mission teacher sat and watched at the centre of the stage. His wife played the role of the teacher; later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (wine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different [562] category because the bags are of a special type, supplied by the coffee [422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Tisumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly [538] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The [177] age difference happens to be very significant in various indices of [871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district [167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any [191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys, [199] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

TABLE 19

462

DIVISION OF LABOUR BETWEEN THE SEXES
AMONG THE OROKAIVA IN 1923

Source: F. E. Williams Papers W.5, dated Wasida 5.10.23

Women

Planting and small cleaning in Garden
Fishing for small fish
Cooking
Cleaning house and surroundings
Pottery
Bark cloth and painting of same
Look after pigs and dogs
String bags
Mourning vests of Job's tears
Mourning neck ornaments, of Job's tears
Armlets of Job's tears
Make shell and string belts

Men

Clearing of gardens
Hunting
Large fishing
Building
Make spears
Make clubs
Make cane belts
Make woven armlets and leglets
Make shell and string belts
Make wooden bowls

462
512

Day's work of woman

(Ejiro of Borugata)
Sometimes in garden . . . sometimes in village . . . but more often than not goes to the garden
Going in the morning she will clean . . . plant. . . dig up taro . . .
In afternoon she collects firewood . . . water (in a gourd, scooping it in with a folded leaf), . . . taro etc. in her string bag (eti) and return "at four o'clock".
Then she cooks for husband and children . . . after that kaikais betel and stops nothing

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife, to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

grow. The woman may help by collecting coconuts once they have dropped on the ground and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasize that we are here being taught an ideology which requires the opposition.

The hero's second opposition centers on the culinary use made of the nuts. Areca has no place in the kitchen, in opposition to coconut. The fact that coconut is also often eaten raw would weaken the opposition but is suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that in ritual girls give areca to men, but the opposite statement is omitted, viz., that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, areca feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a "fact," but it is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra;—*ainge eto* ikena.

This passage, translated above, contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man; *because* coconut belongs to a man, *therefore* coconut is masculine; *because* areca is a girl, girls give areca. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

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The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from the neighboring mountain district of Managalase brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married his sister and how the young man killed his father when the latter returned to complete his meal. He cut the father into many pieces, which were shared out among men whose descendants became the various language groups of the northern district, and multiplied exceedingly.

The informant who told me the myth suggested that its subject was the origin of taro cultivation. The whole text is deliberately ambiguous. When we are told of the woman giving [243] birth to a child, we must think simultaneously of her harvesting a taro—and we must remember that among the Orokaiva only [462]* women are considered *capable* of harvesting taro. When the woman is told to cut the child's head off, the narrator is thinking simultaneously of harvested taro, which is considered to be still alive until the top is severed from the rhizome. Again, the woman's method of concealing her children is modeled on the treatment given to taro shoots (*bere*) when they are planted. The word *bivese*, in particular, denoting the heap of weeds with which the children are covered, is a gardening term.

The apparent lies used by the woman to hide her activities from her husband are truths if her statements are taken symbolically. For instance, the reference to "throwing the child into the water" calls to mind that the origin of taro in many myths is linked to the water and that the rainy season is metaphorically linked to the fostering of a child in the womb.

The true nature of Totoima, though familiar to every Orokaiva, is not explicitly set out in the myth presented here. In other tales he has tusks which he wears when he kills people, but which he lays aside when he goes to sleep. He is killed by his son after his tusks have been removed from his bed. I shall return to this theme in a later section of this essay. Meanwhile, we note that in attacking his son, lying in the *gaga*, Totoima behaves in the manner of a wild pig while his son behaves like harvested taro. Totoima has partly a pig nature, partly a human nature, and these aspects are only partly differentiated. His son,

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

tended to play down such a possibility. While the concept of exploitation is perhaps more directly relevant to Marxist theory than alienation, it has certain drawbacks that are now widely recognized. Where use-values are predominant it is common practice to set up not so much a division of labour (Vernant has rightly argued one cannot call it that) but rather an allocation of tasks to persons or social categories who are thought to have special competence for them. Thus, as the most common example, certain tasks are allocated on the basis of criteria like age and sex. Now, this is not in itself exploitation though obviously it may well lead to exploitation. We therefore need a criterion, other than that of the task allocation itself, to determine whether exploitation in fact occurs.

I shall press this point by citing one counter-instance. Among the Orokaiva only women are considered competent to harvest. Men never do it and claim that, if they did, the taro supply would be exhausted too soon. As an exception, they do harvest taro for feasts, and this exception only goes to confirm that they would be far too prodigal to act as daily harvesters. Is this just a story to exploit women? When crops are being marketed, the rule among Orokaiva is that the men carry the coffee and are paid for the coffee, but taro and other subsistence vegetables, when taken to market, are taken by women who also retain the money. Their right to the produce is maintained not only for the daily food supply but also when there is money to be earned. Their right to the product of their labour does not seem to be questioned. Thus, by the criteria we have been using, Orokaiva women are not an alienated labour force and it will be seen that *alienation* is more convenient in an operational sense than the concept of exploitation, which may be too broad.

While studies of alienation in Melanesia are rare, it is possible to give some indication of the patterns. M. Panoff, in his study of Maenge suicides (1970), did not question the generally accepted model of Melanesian society as governed by certain strong exchange and 'equivalence' principles. He points out, however, that there may well be a minority of marginal individuals who are somehow too weakly established to be within the range of those principles: they may at times press their rightful claims, but without success. Panoff shows that the male suicides among the Maenge occur as a general rule against this background of ruthless and unlimited exploitation. In fact it is only suicide that sets a limit to exploitation in such cases. The proportion of people Panoff places in that category appears to be of the order

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

the Australian rulers, although they also know that so far the difference is not great.

Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

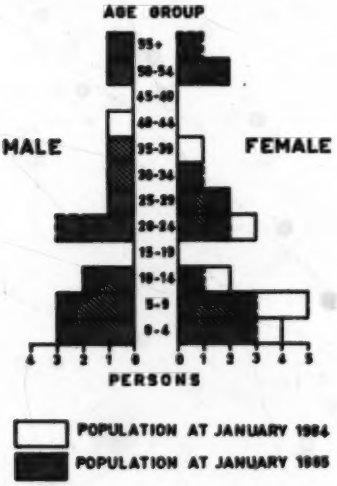
Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

FIGURE 4:2

162 **INONDA: AGE-SEX STRUCTURE**

SHOWING NET CHANGES JANUARY 1964-JANUARY 1965



621 non-agnatic ties have led to close relationships with people in Ajoro, Sewa, Mosou, Urio, Jonita and Hohorita.

463 As in Sivepe, most of the men have had labouring jobs and two had also been teachers for the Anglican mission - one for 27 years, the other for 6 years, including 4 in New Britain.

871 Three household heads, all over 40 years of age, have had no education. One household head and one woman reached standard V and the woman's husband completed standard IV. Two young men, one a household head, served as farmer trainees at Popondetta Agricultural Station, and another completed eleven months of the course at the aid post orderly training school at Saiho.

554 In addition to his six years with the Anglican mission, one of the ex-teachers, a man of 35, was for two years local government

472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had [466] [463] held posts involving considerable responsibility over people and property.[2]

472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepe six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of [177] Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have engaged in retail trading with varying degrees of success.[1] With 121 only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according 128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their stores at the time of the survey. Group II comprises another four 463 whose stores had an average monthly turnover of less than $50.00. 472 Group III comprises those with a turnover in excess of $50 a month.

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[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

Background experience

463 472 871 Education. Although the most successful group of entrepreneurs had all had considerable education (more than three times the average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 472 484 Travel. There may be a positive correlation between travel experience and trading success. All the entrepreneurs had travelled beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 472 464 Paid work. The number of years spent in paid employment correlates negatively with the entrepreneurial success of the sample, as under:

Table 3

Years of paid work

A	15	E	10	I	1
B	8	F	5	J	8
C	8	G	7	K	3
D	14	H	13	L	4
Average	11.25		8.75		4

When level of responsibility and status is considered, however, the position reverses: those who are most successful have held jobs requiring most responsibility.[1]

Table 4

Level of job responsibility

	A 2		E 2		I 1
	B 2		F 2		J 3
	C 3		G 3		K 1
	D 2		H 1		L 1
Average	75% at level 2		50% at level 2		75% at level 1

Social relations

Age. Average age is lowest for the most successful group but this is likely to be related to the fact that educational services were even fewer before and during the second world war than they have been since.

Table 5

Age

A	34	E	50	I	40
B	30	F	46	J	26
C	37	G	26	K	29
D	40	H	45	L	21
Average	35.25		41.75		29

[1] Level of responsibility was categorised as follows: (1) policeman, cook (pre-war), welfare assistant, medical orderly; (2) interpreter, labour recruiter, foreman; (3) storeman, clerical assistant, domestic (post-war), gardener, hunter, labourer.

463 472 Seniority of birth. This seemed to be of positive significance for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] [571] Traditional leadership roles. The only position of traditional leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 472 571 621 Non-traditional leadership roles. It is to be expected that Orokaiva entrepreneurs will hold responsible and respected positions in their community. The table below shows a positive correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that it may.

592 Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
derives from the land and social security from the fulfilment of
[366] obligatory ties which bring reciprocal returns in times of sickness,

463 472 602 366 old age or other need. The system was not geared toward capital accumulation, nor was the bulk of material reward retained by the man who made the effort. To achieve maximum economic efficiency a modern entrepreneur must disengage himself to some extent from his kinship obligations. As Table 9 shows, a number of the entrepreneurs studied have physically removed themselves from the village to live near their cash crops, or have built close to, but outside, their villages. Thus while the vast majority of Orokaiva people live within a village, most entrepreneurs among them do not, and all the most successful live outside their home villages.[1] Independence, however, may place the entrepreneur in a vulnerable position. He has reduced access to the security provided by traditional ties, reciprocal obligations and religious rites within the village community, and there are at present no alternative provisions for social security.

Table 9 suggests that there may possibly be advantages in trading away from one's own village and where one is not dependent on one's villagers as customers. All three traders within their own village have had little or no success, and all the most successful groups are outside or away from their home village.

Table 9

Location of store

Location	A	B	C	D	E	F	G	H*	I	J	K	L
Away from own village (i.e. own villagers not usual customers)	'			'				'	'			'
Close to but outside own village		'					'			'	'	
Within own village			'		'	'						

* H's village is to be shifted to the present location of his trade store. He resides within his own village.

[166] Half of the least successful traders were still living in the village of their birth, whereas 75 per cent of the traders in both groups II and III were not living in the village in which they were born.

463 472 366 Of the sixty-seven indigenes in the Northern District holding trading licences, twenty-three are shown in the government records

[1] Likewise all four entrepreneurs studied by Crocombe (1967:5) lived outside their villages.

463 472 366 to be trading within their own village and twenty-six outside their village.[1] In eighteen cases store location is not specified. The only indication of success provided by the licence is the period of operation for each store. This index is not wholly reliable, because a store licence is sometimes renewed when the store is no longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 472 476 Labour. The Orokaiva commonly enlist the help of relatives to establish and maintain cash crops. These relatives are rarely regarded as paid labourers, and are compensated with random gifts of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 602 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour						
	Extended family or siblings			Non-relatives from same village	Non-relatives from different village		
	No.	Period	Payment		No.	Period	Payment
A	-			-	1	1 month	$3/month and food
					1	2 months	- do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establish-ment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1	1 month	$4 per month
					1	3 months	
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3. Abandoned as unsatisfactory.	3	occasional	$2.50 per week

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
465 to pay hired labour, and are thus forced, willingly or not, to exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	702
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	1,800
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

463 472 444 Trading. Almost all entrepreneurs felt that trading provided, or should have provided, more reward for the effort invested than cash cropping. Even those who had lost by trading wanted to return to it and C, D and E were saving their income from cash crops in order to restock their unsuccessful stores.

Table 14

Months of store's operation

A	2 (closed in Jan. 1964)	E	26	I	3
B	36 (closed in June 1964)	F	19	J	6
C	22 (closed in Sept.1965)	G	6	K	5
D	18 (closed in June 1965)	H	20	L	15
Average	19.5		17.75		7.25

The table above shows that the most successful stores are on average the most recently opened. There is a negative correlation between length of operation and trading success for each store. It may be that there is an optimum period of satisfactory functioning for stores owned by indigenes, after which custom declines. We have no evidence on this point and there are many variables on which the more successful traders differ from the less successful. Other variables, unrelated to the traders themselves, could influence the success of stores. These include the proximity of any other types of stores and the preference of some villagers for patronising co-operative stores rather than individually owned stores (see Crocombe 1967:21). The location of the store in relation to residence of the owner (see page 30), to roads and to other sources of casual custom (e.g. a plantation, a road or other construction project) is also significant. We do not, however, have measured data on these variables.

[412] Tools and equipment. All the entrepreneurs in the sample have many more tools and equipment (current replacement value averages $148.80; range $46.40 to $376.45) than ordinary villagers.[1] There is not, however, any apparent relationship between trading success and value of tools and equipment.

[1] By contrast, average current replacement value of tools and equipment per householder in three villages was $7.58 in Ongoho (Crocombe, unpublished), $18.38 for Sivepe (Rimoldi 1966:25) and $21.06 for Inonda (Crocombe and Hogbin 1963:45).
A [See Category 463--Analyst]

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

Liquid assets. The three groups of entrepreneurs show a clear progression in average savings, group I averaging $37.32, group II $212.01 and group III $322.66. The details are given in Table 17. 463 472 454

Table 17

Entrepreneurs' liquid assets

Entrepreneur	Savings bank	Settlers Savings Club	Shares in co-operative or cash society	Cash	Total	Average for group
A	30.00	6.00			36.00	
B	5.30		60		65.30	$37.32
C	42.00				42.00	
D	6.00				6.00	
E	300.90			62.00	362.90	
F*	2.65				2.65	$212.01**
G	?				?	
H	320.00		12.50		332.50	
I	224.00		10.00		234.00	
J	?				?	$322.66**
K	536.00				536.00	
L	198.00				198.00	

* Savings were much higher but used on brother's wife's funeral and food to supplement garden produce during drought.

** Averaged for three persons only. G did not have his account book with him and said he did not remember the amount. J is said to have substantial savings but was not home when the data were collected and his brother did not know the extent of his savings.

The loans received by the entrepreneurs are shown in Table 18. As mentioned above in connection with cash-cropping, there is a negative correlation between extensive cash-cropping and success as an entrepreneur. This is further borne out by the fact that the only three entrepreneurs to receive loans of $1,500 from the Land Board have planted the most cash crops and are among the less successful entrepreneurs. 463 472 426 657

The receipt of a loan to assist in the establishment of a store seems to be correlated positively with entrepreneurial success. It must be remembered, however, that none of the most successful stores had been open for more than fifteen months.

Table 18

Loans received

A	$1,500 (land board)	E -	I $200 (from brother-in-law for store)
B	$178 (from younger brother for store)	F -	J -
C	-	G -	K $390 (from brother and share money for store)
D	$1,500 (land board)	H $1,500 (land board)	L -
	75%	25%	50%

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

Table 19

Traders as at January 1966

	Group I	Group II	Group III
Economic variables			
Store turnover per month	-	under $50	over $50
Store outside village	75%	50%	100%
Average no. of economic trees	702	1,800	168
Traditional valuables	$31.51	$46.16	$7.50
Liquid assets	$37.32	$212.00*	$322.66*
Months of operation of store	19.5	17.75	7.25
Tools and equipment	$124.68	$177.75	$143.97
Loans received: land	50%	25%	-
store	25%	-	50%
Social variables			
Age	35.25	41.75	29
Index of education	26.7	3.75	46.7
Years of paid work	11.25	8.75	4
Non-traditional experience	16.75	10.25	11.75
Job: level 1 responsibility	-	25%	75%
level 2 responsibility	75%	50%	-
Community leadership	50%	75%	50%
More than one leadership position	-	50%	25%
No. of co-operating adult male kin	2.25	2.75	2.5
Size of present household	6.5	5.75	5.25
Eldest son	75%	25%	-
Residence village different from village of birth	50%	75%	75%

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472
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* No information on one subject in group.

The most successful traders had the smallest households, but used the help of co-operating kinsmen more than the least successful (whose present households were the largest) and less than group II (whose households were also large). The moderately successful traders depended most on the help of kinsmen, but not nearly so extensively as cash-cropping entrepreneurs previously studied (see Crocombe 1967).

[592]
[602]

593 further such lucrative young females. Of the six, two were Sivepe
592 women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

464 Though Waddell showed that the loss of adult male workers
433 through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xanthosoma taro (see page 35 above)[A] to the deflection of the
889 adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows
● [463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

595 I saw no evidence of polygamy currently practised. Marriages
585 were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time
586 of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money
464 home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

114 The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

464 A [See Cat. 116--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of acculturation, as the first school was established at Sasembata in
[871] 1945, and the custom of looking for wage labour outside the district did not become widespread until about the same time. While some Jegase
[167] people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have slightly more school education than Seho adults but a great deal more
463 occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

614 its efforts upon what were then the Jegase and Timuru clans, to the
463 exclusion of Seho. When my wife and I came to Sivepe, Jegase at once
177 claimed us, built our house for us and was ready to perpetuate the
123 familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of
614 Jegase did not actually make much difference. Seho grew just as much
177 coffee; the Seho clan leader was always in the vanguard for innovations
184 such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but
614 with brief experience in the A.P.C. before the eruption) made up in
157 shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him atough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to
871 Standard 6) at Sasembata School; so far only one has gone further.
614 One young man, who had finished Standard 6 and a young woman who had
189 done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

184 I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

TABLE 20

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED--ADULT MALES ONLY

Approximate Period	Education Seho	Education Jegase	Occupational Experience Seho	Occupational Experience Jegase
Nil	6	6	4	5
1 year	-	1	1	2
2 years	-	2	1	-
3 years	-	1	-	-
4 years	-	2	-	2
5 years	-	-	-	1
6 years	-	1	-	-
7 years			-	-
8 years			-	-
Over 8 years			-	4
Data vague	2	1	2	-
TOTAL	8	14	8	14

TABLE 21

463 HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

Occupation	Resident	Non-Resident	Total
Teacher	9	1	10
"Medical"	3	-	3
Driver	2	2	4
Shopkeeper	4	-	4
Other	2	2	4
TOTAL	20	5	25

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional. Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/5

SIVEPE: THE DIVISION OF LABOUR BY SEX
(*Source*: Waddell and Krinks 1968: 100)

	Men	*Women*
Total hours active	13,934	15,041
Total weeks present	349.7	363.1
Mean activity week	39.8	41.4

Activity	*Total hours*	*Percentage contrib.**
Men		*Men*
Rubber – harvest	157.4	100
Recreation	194.7	97
Hunting	1,289.3	93
Preparation of tools & equip.	198.1	91
Church work	182.0	88
Construction	1,160.5	87
Coffee – market	77.9	85
Other crops – plant	41.8	84
Sago-making	319.7	81
Yams – plant	225.4	81
– maintain	45.3	79
Purchasing	273.6	77
Taro – plant	1,714.9	75
Social obligations – other	732.7	73
Women		*Women*
Sweet potato/yam – market	51.2	100
Cooking	3,442.0	97
Sweet potato – harvest	900.2	92
Care of the sick	172.5	90
Taro – market	54.3	90
– harvest	2,133.4	87
Washing	117.5	75
Both		*Men*
Rubber – market	36.1	66
Fencing	45.7	64
Coffee – harvest	353.1	62
Miscellaneous	260.6	62
Clearing	2,614.7	61
Coffee – maintain	74.5	60
Social obligations – marriage	32.7	60
– visiting	873.9	56

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all.

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor.

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills.

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

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Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

648 the Australian rulers, although they also know that so far the difference is not great.

177 Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

101 I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by
105 Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Sivepe has twenty-four dwelling houses and a population of 137. The two politically dominant clans are Jegase and Seho, but some families from the Sorovi clan had not long ago migrated to Sivepe from a neighbouring village (Garombi). Sivepe had been shifted recently to the present site so that decorative borders were not yet established, though such improvements were started during my stay. It was planned that the village would be rectangular in shape, with two long facing rows, as in Hohorita and Inonda, but a third row, supposedly temporary, had been established on the hill behind the planned site. In other respects, however, the same standard of village layout had been followed. The houses were roomier than in the other villages and had walls of horizontally laid shingles, an innovation of which the villagers were rather proud. 105

Sivepe has no chapel, but the Anglican mission station is less than a quarter of a mile away from the village. The school conducted on the station is one of the best in the Northern District; it teaches up to grade six and many of its students qualify for admission to secondary schools. The station also maintains a small field hospital, with a Papuan assistant medical officer in charge. For more serious cases the large government hospital at Saiho was used, a facility serving the whole of the Northern District, but in practice out of reach of distant villages like Inonda. Hohorita people, however, use it frequently.

Sivepe has been Christianised only very recently. There were no baptisms until after the eruption and the Seho clan did not join the Church until about 1963. Today very few pagans are left and they do not form a political or other faction. Leadership is shared between several strong personalities. Sivepe lacks residents who stand out by superior wealth or European education, but is rather more homogeneous in that respect than either of the two other villages. Money comes mainly from coffee and from remittances sent by relatives working outside the village.

Sivepe, like most of the Sasembata-Sohu valley, has an extremely dense population – about 180 per sq. mile. 161

REFERENCES

1 Brookfield uses the Klingebiel and Montgomery (1961) classification of land which distinguishes land areas by the degree of limitation to land use imposed by geographical conditions. Limitations may be due to terrain, lithology, soil, or climate. A large territory surrounding Mount Lamington falls in classes I to III (which means it is suitable for cultivation with a mild degree of limitation), as contrasted with most of the rest of New Guinea, where the limitations are much greater. 133 134

2 Figs. 1 and 2 give a general impression of the geography of the district: land systems, natural features, settlements roads, tribal areas, etc. Table II/1 shows the distribution of population in the Northern District of Papua. Table II/2 shows the age breakdown of the population in Sivepe and Inonda. Table II/10 shows rather strikingly how suddenly labour migration began: the men of the Seho clan of Sivepe were just a little too old to have been involved, but the Jegase clan, whose members were slightly younger, mostly spent some time on jobs outside the village before or shortly after marriage. 167 164 162

3 Orokaiva: *ina*; botanical: *sacharum edule*. 262

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quantities in some areas.(1)

After the turn of the century less emphasis was given to the policy of expanding indigenous plantings of cash crops and instead Papuans were persuaded to work as labour on European plantations. In 1906 the Lieutenant-Governor stated that not only was staff inadequate to enforce the 1894 regulation, but that where it was enforced the resultant income attracted traders whom he felt to be a bad influence on the Papuan people. Employment on European plantations, on the other hand, was considered to be beneficial.(2) This policy remained until after the first world war, though some Resident Magistrates also applied the regulations in order to extend native plantings.

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(1) For a more detailed study of the application of these regulations see Miles 1956 : 319-23.

(2) Territory of Papua Annual Report (hereafter abbreviated to P.A.R.) 1905-6 : 9.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

[435] Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound. (1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places [466] where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439]

(1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654] [435]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider 366 range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe [432] people in our sample sell vegetables there regularly but seldom [438] buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 We could not complete this introductory sketch of local 648 facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had seen close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the Orokaiva were 'drawn in as helpers, willingly or unwillingly, on [121] both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting [101] of local men for subsequent phases of the war elsehwere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

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[797]

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepe was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to attack government parties,[3] peace was secure within 4 years. [721] Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes under the novel conditions brought about by the arrival of the [166] Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

●[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

166 In about 50 years preceding the establishment of their present
361 village the groups now represented in Sivepe had between them
177 been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in [G21] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(i) Migration 1900-50: The Bebehupa moved from Simbehata to Korogombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Nahihita nearby.

[G57] In 1950 the Administration instructed the Bebehupa of Korinasusu and Nahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

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5. Employment

Ten people who are siblings or sons of the householders in the 2 subclans are absent from the village. Eight are employed in other districts of Papua as clerks, policemen or technicians. Two men, a single man and a widower, have left to work elsewhere in the district.

Five of the 10 absentees are the youngest sons in their families but their absence does not seem to be directly attributable to a heavy demand on their families' land resources. These who have left the district are people who had the advantage of local education facilities which were not available formerly and they hold semi-skilled positions which offer more prospects of permanent employment than most of the present householders had.

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Only 5 adults in the sample, 2 men and 3 women, have had any formal education. One of the men attended school for 4 years, the other for only 1 year. Five of the 7 householders in the 45-65 age group were employed outside the district on European plantations for 2-3 years before the war, 3 of them as rubber tappers. These men served a total of 7 years as carriers during the war. Apart from the years of service as a paid village official or local government councillor only 2 of them have taken work since the war - 6 months each as casual labourers on a plantation near Popondetta. The 2 other householders of this age have never had paid work. The men between 25 and 35 years have spent an average of 7 years in employment outside the village as against the older men's 3 years.

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The frequency and duration of the younger men's terms in employment are set out in Table 9.

Table 9

Years spent in employment

Household No.	From date of first employment until birth of first child			Since birth of first child		
	Total years	Years in employment	No. of jobs	Total years	Years in employment	No. of jobs
1. (e2J)	5	3.5	3	4	Nil	Nil
2. (d10J)	5	3	3	11	2.5	3*
3. (d11J)	13	9	4	No children**		
4. (e5T)	10	8	5	6	1	2
5. (e1T)	4	3	2	14	6	7

*Householder took further employment soon after our survey.
**Householder had child by first wife but lives elsewhere; he is still employed.

Table 10

Types of former employment of household heads

Age	Household	While resident of village				Within Northern District			In other districts			Total
		Cr or Vc*	Plantation	Unskilled**	Total	Plantation	Unskilled	Total	Plantation	Unskilled	Total	
50	1(d3J)	15			15	0.5	2***	2.5	2[#]	2***	4	21.5
26	2(e2J)			1	1		1	1		1.5	1.5	3.5
48	3(d12J)	6			6		2***	2	2***		2	10
60	4(d2J)											0
32	5(d10J)			3	3	0.5	1	1.5		1	1	5.5
50	6(d6J)								2[#]	2***	4	4
50	7(d4J)											0
32	8(d11J)		5[#]		5	1[#]		1	2[#]	1	3	9
34	9(e3T)		4	1	5	3[#]		3		1	1	9
55	10(d15T)						1	1	3[#]		3	4
35	11(e1T)			1	1	2.5[#]	1	3.5		4.5	4.5	9
55	12(d1T)					0.5		0.5	2***		2	2.5
		21	9	6	36	8	8	16	13	13	26	78

*Councillor (Local Government) or Village Constable.
**Excluding unskilled work on plantations.
***Pre-war or during war.
[#]Including work as rubber tappers.

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464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
[466] District. The young men on the other hand readily leave village life temporarily to take casual work on European plantations in the district where there is now a greater demand for labour. They may leave their wives and children to be provided for in the meantime by the other side of the family or may have them accompany them to the area where they are employed. These absences interrupt the routine of subsistence activities for the family but the possibility of this course of action is left open by local environmental conditions and the virtual independence of the nuclear family as a gardening unit. There is little seasonal variability and this small group is free to resume any phase of garden activities when and where it chooses.

431 Among the 5 able-bodied and active men of the senior group there seems to be no consistent demand for cash which cannot be met by gifts from their kin or affines and they have sought temporary employment only as a means of meeting some immediate financial requirements. With the exception of the salaried local government councillor the older men received 78 per cent of their total year's income of $88 as gifts.

434 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods available locally as well as on kinship obligations. However, not all income is spent in this way and, as Belshaw found in this area (1951:11) there is both some capital available for investment and a willingness to contribute money to funds for this purpose if they can be organized.

The men who have spent most years in paid employment also supplement their income by producing rubber and coffee, sometimes with the assistance of their fathers. However, no one has invested heavily in these crops and they provided only $52 or 15.8 per cent of the sample's income for the year.

245 c. Commercial agriculture

(1) Coffee. Four householders in the sample have individual coffee plots with a total of 503[1] trees on 1 acre of land. One of these plots is a section of a former village or 'company' coffee plot. About the time of the opening of the Higaturu Council in 1956 members of Jegase, Timumu and other groups in Sivepe and Binduta villages participated in the planting of 2 'company'

[1] The agricultural census of 1964 recorded 1,100 trees held by 5 growers in Sivepe as a whole (162 were not yet 6 years old and 491 of the trees had been planted more than 10 years before).

249 recent agricultural census listed 55 stands with 13,700 trees in
433 the Saiho Census Division (which coincides roughly with the 'Periho'
311 area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 b. The agreement between the lessee and the villagers was modified
657 in 2 ways after the war. When the scheme was resumed in 1943 the
[434] Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 c. Until 1946 local villagers were employed by the lessee to tap
[464] their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] The Village Constables had been responsible for seeing that
[623] the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

e. The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

replacement of his vehicle being necessary but uneconomic. By 1958 independent production from his own plantation was increasing and, despite periodic renewal of enthusiasm for rubber,[1] the number of village tapping stands had dwindled,[2] due partly, in the planter's view, to the movement of increasing numbers of able men from their villages to take paid employment. Already, in 1955, it had been noted that in the areas near Awala and Sangara there was a serious shortage of manpower for work in the villages due to the absence of men employed as wage-earners.

In 1958 the people still interested in tapping adopted the planter's plan that, instead of selling latex at 1 shilling per pound dry weight of rubber as before, they should coagulate their latex themselves and carry it to the factory for sale at 6 pence per pound of coagulum. However if members of a distant village had a lot of coagulum for sale, they might still ask the planter to send a vehicle to collect it without charge.

Bi-annual 'reports on native agriculture' put production from village stands for the year ending 30 June 1959 at 7,000 lb. (dry weight) and the price at 1 shilling per pound. In November of the same year it was estimated that rubber was produced from about 50 acres of village stands. By December another 2,750 lb. had been produced and the European planter suggested that declining production was due to the attraction of labour to the new Sangara European plantations and to heavy demands on villagers' time made by Administration departments and the mission. Coffee and cocoa planting was said to be increasing at the expense of interest in tapping rubber. In the first 6 months of 1960, however, 4,700 lb. (dry weight) was produced; by mid-1964 interest had increased further[3] and coagulum with an estimated dry rubber content of 1,500 lb. per year was being produced. In 1962 the price offered by the planter for coagulum had fallen from 6 pence to 5½ pence per pound.

It is not clear whether the individuals who offered themselves as tappers after 1946 had been conceded this or any other right by the rest of the villagers. Responsibility for distributing

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[1] In the first 6 months of 1955 production from 7 plots of rubber 'in the Sasembata area' rose by 60 per cent to 8,000 lb. dry weight (DS-29-855).

[2] The planter puts the number of villages involved at this time at about 30. The number participating at present is still about the same.

[3] Interest was aroused by the Ombisusu rubber project at this time (see p.102).

461 In 1944 attempts were made to revive the communal plantations but employment by the American military in the Inonda-Oro Bay area and other work for Allied troops made the people revise their ideas on the value of their labour[1] and resulted in a general lack of enthusiasm for the cash cropping schemes.

731 The eruption of Mt Lamington and the subsequent floods destroyed many villages and gardens and some 5,000 survivors had to be evacuated to refugee camps at Oro Bay and Ilimo. While the majority were resettled within four months, 1,500 people from within a 'danger area' of eight to twelve miles around the active crater were obliged to remain at Ilimo camp until July 1951, or live with clansmen elsewhere, and re-occupied their villages only over a period of years.[2]

731 Many Orokaiva viewed the disaster as divine punishment, in
823 particular for their lack of co-operation with governmental and mission programmes,[3] and they were reported to deeply appreciate the extensive relief measures, including food, tools and medical services, provided by the Administration. Subsequent Administration
464 reports remark on the willing co-operation of the people in voluntary road construction and their renewed interest in cash cropping.[4] However, once the need for producing food as a relief measure had passed, all staff of the Department of Agriculture were withdrawn from the District. Interest waned and was reported to be 'completely dead' in 1953.[5]

(d) Activities of the Anglican mission

797 Apart from very limited activity by Seventh Day Adventists in the Pongani area and Lutherans among highland labourers at Sangara, the Anglican church is the only mission working in the Popondetta sub-district. It first established itself at the Mambare River in 1900 and activities were gradually extended southward along the coast, but it was not until the 1930s that stations were established among the inland Orokaiva, at Isivita and Sangara. In 1965 the

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[1] Patrol Report, Higaturu, 1543/44; Crocombe 1964:21.

[2] See Rimoldi 1966:45-6 for a fuller description.

[3] Belshaw 1951b:242; Keesing 1952:18. However, some informants viewed it as punishing the Europeans (thirty-four of whom were killed) either for the hangings at Higaturu and Sangara, or for not having provided the Orokaiva with education and access to income.

[4] This was in part an expression of the high prices obtaining during the Korean War.

[5] DDA, Popondetta, D5-17-4-5.

considerable interest was shown, more than $14,000 being subscribed by the Orokaiva in the first six months of operation. However, it appeared during 1964 that this company might experience the same pattern of high initial interest and subsequent disenchantment, accentuated by the failure to pay a dividend at the end of the first year of operation.

Cocoa is purchased by both DASF and the Popondetta Cocoa Fermentary Ltd, a company financed entirely by European capital. Plans were being made in 1964 for the ex-servicemen settlers, both indigenous and expatriate, to establish their own fermentary.

Weekly markets at Popondetta and Saiho provide outlets for subsistence produce but turnover is small and it is doubtful whether they contribute significantly to many individual incomes.[1] The principal buyer at Saiho is the Public Health Department and at Popondetta, the urban indigenous wage labour force, but in both markets the volume of transactions between subsistence-oriented villagers (primarily involving lime, smoked fish, areca nuts and fresh meat) is increasing.

The Administration and the Anglican mission buy fresh foods brought to their stations. Since purchase prices were fixed by the Administration at 2c and the mission at 1c per lb,[2] and only a limited quantity is required, there is little incentive for the villager to increase production.

In spite of an increasing commitment to cash cropping, rates of planting and levels of production fluctuate with changing prices and difficulties in selling certain crops. The purchase price for coffee has ranged between 9c and 32c per lb over the period 1955-65 while that for latex has fallen from a peak of 55c per lb during the Korean War boom to 9c per lb in 1965. A Citrus Marketing Scheme elicited much local interest in 1956-57 when fruit was purchased at 5c per lb, but it collapsed with the unwillingness of retailers in Port Moresby to handle the produce.

(f) Conclusions

In spite of long participation in cash cropping, Orokaiva involvement is not high. Everywhere commercial production remains subsidiary to subsistence, individual cash crop holdings are almost

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[1] Dakeyne 1965:109; Rimoldi 1966:8. Both show, however, that a few individuals earn worthwhile sums from marketing.

[2] Bartered at this rate in salt, tobacco, razor blades and kerosene.

universally small and there is no evidence to suggest that any village producers are employing labour to increase production.[1]

Monetary investment at the village level is low and there are no motor vehicles owned by individuals or groups of subsistence villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

(i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

(ii) Consequences of the disasters. The effects of the war and the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16.

A,[See Category 731, p.16--Analyst]

are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

(iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

Anglican mission stations frequently employ school-leavers as 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

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[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

491 station with Boru on the main road near Awala and passing within a
[499] mile of Sivepe, but it was not completed by the onset of the wet
season. It was intended that this would be used by the OCCS and
[361] other purchasers of produce. This was the main reason for the
Sivepe people's decision to move their village to a site within
200 yards of Sasembata mission station.

797 Sasembata mission is a head station of the Anglican mission.
[743] Among its facilities are a church, administered by an Orokaiva
priest, a hospital and infant welfare clinic run by a Papuan
[871] medical orderly but supervised from the Administration hospital
at Saiho, and a primary school with 400 children on the roll.[1]
The school includes classes up to Standard V and is headed by an
Australian with the assistance of ten Papuan teachers. A small
trade store is operated by Oro Ltd at Kongohambo village adjoining
the mission station.

621 Sivepe itself is laid out as a line village, with lineage
members tending to occupy adjoining houses (see Map 4). The houses
[342] have a mean size of 229 sq ft and are built entirely of local
materials, with the exception of nails which are now commonly used.

[125] Three clan branches are represented in the village and two of
these, the Jegase and Timumu clans,[2] comprised the survey sample
(55.3 per cent of the total village population of 114 in January
1964), the characteristics of which reveal them to be representative
of the population as a whole.[3]

166 The population of the sample declined by 20.6 per cent, from 63
to 50 persons, over the survey period. Ten of the 17 departures
464 migrated to other villages and the rest sought wage employment
within the district or in Port Moresby. This continuing out-
migration intensified certain characteristics of the village's
labour force, for by January 1965, 37.8 per cent of the potential
adult male labour force was absent, the majority on a long-term
basis in unskilled or semi-skilled work or low-ranking positions
in government service.[4] In three cases, wives and children remained
in the village and were supported by close kin. In January 1965,
there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[361] [2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 A and Fig. 4:1. B

[4] See Appendix 2. C

A, [See Category 163, p. 307--Analyst] B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[594] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A. [See Category 871, p. 307--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

121 subsistence societies those activities which provide the mechanism for exchange are generally excluded since it is assumed that the exchanges are of little economic significance. As will be demonstrated such an assumption is of doubtful validity.

In societies where labour is not specialised and subsistence production dominates, the social and economic threads are closely interwoven. All actions may be considered economic in that they are concerned with the 'maximisation of satisfactions',[1] while the close association of the networks of kin with processes of production, distribution and consumption precludes the drawing of a clear distinction between work and leisure. While the term productive is a useful parameter as applied particularly to material life and in contrasting the nature of the involvement in the subsistence and external sectors of the economy, it comprises only part of the total economy. Production and labour in traditional societies must be considered as an integral part of this broader system, perhaps following Conklin (1957:152) who stresses that Hanunóo 'mixed swidden farming...constitutes a pattern for living rather than only a means of making a living or a source of food or cash income'.

There is a complexity of motives underlying the various activities and to suggest that work is oriented simply towards obtaining material goods and achieving subsistence is to grossly misrepresent the situation. 'The pleasure of craftsmanship, the feeling of emulation, the desire for public approval, the sense of duty towards the community, and the wish to conform to custom and tradition, all these and more find outcome in economic action.' (Firth 1959:175.) The point is not simply one of theoretical significance[2] but is of considerable relevance to a consideration of the development potential in these communities, and it is with this in mind that attention here is directed to the whole range of village activities.

179 433 The IBRD report on 'The Economic Development of Papua and New Guinea' considers efforts should be directed primarily to the exploitation of the two major resources of land and labour, and states (1965:40) that

[464] The mobilization of unskilled indigenous labour for development should not be difficult; the manpower potential is large and there is evidence that many more workers could be recruited for wage employment than are now at work.

121 464 The thesis that a potential surplus of labour is concealed within the New Guinea subsistence economy has been developed by Fisk. While the data which follows vindicates his main argument, two

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[1] See Burling 1962.

[2] For a detailed discussion of this see Steiner 1957.

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

Chapter 6

Activity patterns: Sivepe

125

Introduction

[128]

The Sivepe survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

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[64]

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(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

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[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

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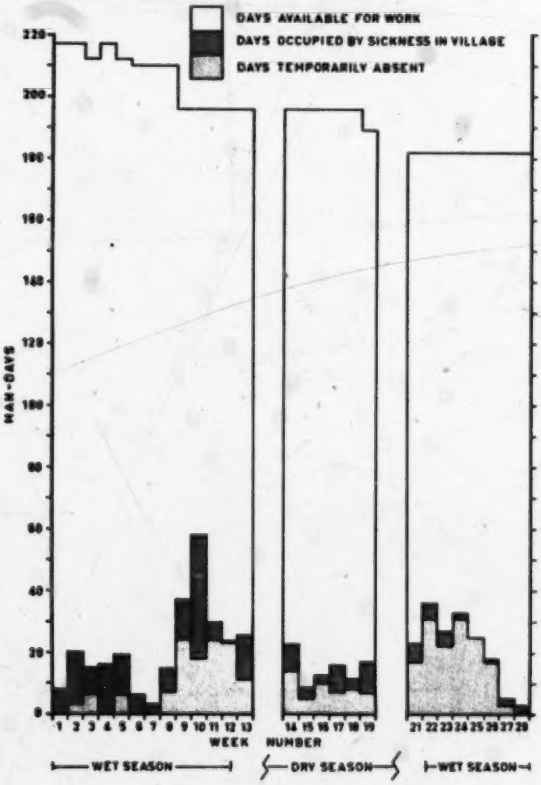
SIVEPE FIGURE 8:1

POTENTIAL WORKING DAYS AND DAYS OCCUPIED BY ABSENCE AND SICKNESS



mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

[1] See pp.44-5. 1

[TEXT CONTINUED ON PAGE 77]

man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

The adult residents of Sivepe are active, on average, 40.6 hours per man-week, although, as Fig.6:2 demonstrates, there is a substantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

Table 6:4

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Sivopi: mean time spent per man-week on all activities in each recording period
(hours per man-week)

Group	Activity		Period I	Period II	Period III	Survey
Clearing			4.4	2.4	3.3	3.7
Subsistence gardening	Fencing		-	-	0.2	<0.1
	Taro	- plant	1.9	2.8	3.0	2.4
		- maintain	3.0	3.9	4.5	3.6
		harvest	3.4	1.9	3.0	3.0
		market	0.1	-	-	0.1
	Sweet potato	- plant	-	-	<0.1	-
		harvest	0.7	1.1	2.4	1.3
		market	0.1	-	-	<0.1
	Yam	- plant	0.6	-	-	0.3
		maintain	-	-	0.2	<0.1
		harvest	0.8	0.1	0.6	0.6
	Minor crops	- plant	-	0.1	<0.1	<0.1
		maintain	-	-	0.1	-
		harvest	1.0	3.4	1.1	1.5
		market	<0.1	-	0.2	<0.1
	Total		11.6	13.5	15.6	13.2
Other subsistence food production	Fishing		0.2	-	0.5	0.2
	Hunting		0.7	0.8	4.8	1.8
	Bags-making		-	1.3	0.4	0.4
	Total		1.0	2.3	5.7	2.5
Other subsistence activities	Preparation of tools and equipment		0.3	-	0.3	0.3
	Construction		2.2	1.6	0.6	1.6
	Total		2.5	1.6	1.1	1.9
Household	Washing		<0.1	0.2	0.3	0.2
	Cooking		4.8	4.6	5.1	4.8
	Collecting firewood		0.2	0.1	0.3	0.2
	Total		5.1	4.9	5.7	5.2
Social obligations	Marriage		-	0.2	-	-
	Death		1.7	0.9	0.2	1.1
	Other		0.8	0.7	1.7	1.0
	Visiting		1.3	1.0	1.3	1.2
	Total		3.8	2.8	3.2	3.3
Cash cropping	Coffee	- maintain	0.2	-	-	0.1
		harvest	0.9	0.2	-	0.5
		process	1.0	0.3	-	0.6
		market	-	0.5	-	0.1
	Rubber	- harvest	0.1	<0.1	0.5	0.2
		market	-	-	0.1	-
	Total		2.2	1.1	0.7	1.4
Paid work			2.0	1.2	1.0	1.6
Sick	Personal		0.5	0.2	1.2	0.6
	Care of sick		0.3	0.2	0.2	0.2
	Total		0.8	0.4	1.4	0.8
External agencies	Purchasing		0.2	0.4	0.7	0.4
	Council work		0.9	1.8	1.0	1.2
	Meetings		1.3	0.5	1.8	1.3
	Church work		0.3	0.3	0.1	0.2
	Church services		3.1	3.7	1.2	2.7
	Total		5.9	6.7	4.8	5.8
Miscellaneous	Recreation		0.1	0.4	0.4	0.3
	Other		0.1	-	1.1	0.4
	Researchers		0.3	-	0.2	0.2
	Total		0.4	0.3	1.7	0.8
Total - all groups			40.0	37.5	44.2	40.6

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in [484] two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

461 Although returns to labour from paid work are substantially less
[464] than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 (iii) Other activities. Of activities associated with the ex-
177 ternal sector of the economy, it is the 'non-productive' which are
[797] the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] The local government council dictates that one day per week be
[651] spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 33 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

Chapter 7

Activity patterns: Inonda

Introduction

Records were kept of the daily activities of the 19 permanent adult residents of Inonda and of 2 young people (one aged 15 and the other 16) who spent periods of a few weeks in the village helping kinsmen. These 21 people were regarded as residents for a total of 3,230 man-days. Temporary absences of more than 24 hours duration amounted to 560 man-days and so the number of man-days considered below amounts to 2,670. Table 7:1 shows the number of man-days absent in each recording period and in total.

The number of effective working days in the village is further reduced by sickness. When suffering from major illnesses such as malaria and influenza, people generally stay in bed at home or at the aid post. Comparatively minor ailments such as skin infections, tropical ulcers and cuts are usually dealt with by brief visits to the aid post, mostly early in the morning before work. Such visits occupied almost 600 man-hours over the survey.

Table 7:2 shows the incidence of sickness when people were inactive in the village. Periods of sickness spent at the aid post or hospital are included under 'Absences' in Table 7:1.

Figure 7:1 illustrates the weekly incidence of man-days occupied by sickness while in the village and by absence. There are wide fluctuations in the incidence of both, but particularly the latter, which ranges from zero to 46 man-days. The peaks of absences occur mainly with feasts in distant villages and when several villagers are sick at the same time and stay at the aid post or with relatives. Sickness tends to be most common during the wet season (periods I and III).

During the 2,670 man-days resident in the village, the activities carried out by the sample occupied 16,620 hours or 6.2 hours per person per day.

164

Table 7:2

Inonda: man-days occupied by sickness while in village

	Personal sickness	Care of sick	Total
Period I	61.5	2	63.5
Period II	22	6.5	28.5
Period III	43.2	3.5	46.7
Total	126.7	12	138.7

INONDA FIGURE 7:1

POTENTIAL WORKING DAYS AND DAYS OCCUPIED BY ABSENCE AND SICKNESS

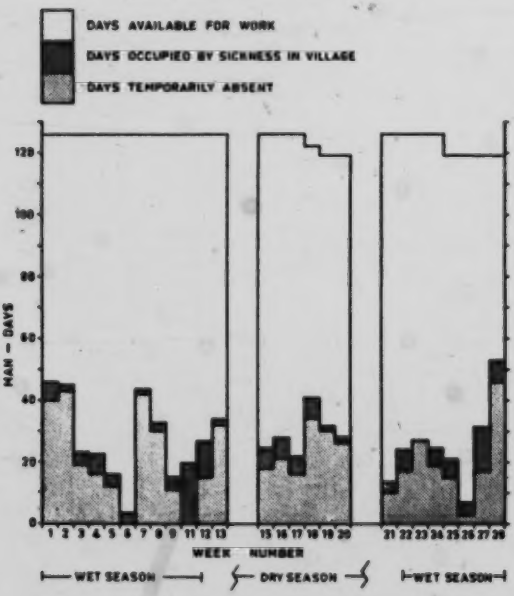

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Table 7:4

Inonda: adjusted mean weekly activity over survey period
(Adjusted with additional data on household tasks)

Mean number of man-weeks	Hours per man-week	
	Household	Total
14.7	10.1	49.9

(b) The external sector

In total, subsistence activities (including household tasks as adjusted above and excluding construction oriented towards cash income, occupy 34.8 hours per person per week. Cash-producing activities - cash cropping, paid employment, entrepreneurial activities, marketing of game and construction of the copra-drier - together occupy 4.5 hours per person per week. Unlike most of the subsistence activities, not everyone engages in cash-producing activities. Some men did not obtain paid work during the survey period and there is only one man with the experience and confidence to operate as an entrepreneur. Women may assist husbands and kin in cash cropping and sell produce in the market on their own account but they do not engage in paid work (though some had, in the past, worked as domestic servants on a nearby plantation). However, taking the village data as a whole, an individual spends an average of 39.3 hours a week on productive activities in both the subsistence and the monetary sectors.

[462]
[464]

(i) Cash cropping. The average time devoted to cash cropping is only 1.0 hours per man-week. Although the survey excluded much of the coffee harvesting and selling season, the figure would be only a little higher if these had been incorporated. Only one household harvested and processed coffee during the survey; if the other two households with mature trees had also done so at the same rate, the overall average time on cash cropping would be raised to 1.4 hours per man-week. The most intensive work was carried out on copra in the dry season, when harvesting and processing occupied a mean 1.3 hours per man-week over that period. Unfortunately, much of this time was wasted. When the drier was finished, it was decided that copra-making should be a communal project and the villagers spent a total of 82.6 hours, most of this in three days, collecting and splitting some 410 coconuts, laying out the flesh and maintaining a fire. On the fifth day, the fire was stoked with husks instead of wood and shells and the copra was spoiled by the thick smoke. The following week the women refused to assist the men for more than a few minutes, since their previous labour had been wasted. The men spent 10.8 hours harvesting more coconuts and assistance from the researchers saved them 1 hour in transporting

512 entirely mourning and funeral feasts. The bulk of the time is
574 evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for [521] feasts held previously. They also include non-traditional celebra- [796] tions such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

464 Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

164 The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

512 Individuals devote a total of 10.5 hours per week to non-productive
[433] activities. However, the distinction between these and the produc-
[574] tive activities is not clear cut. For instance, part of the labour
[43] input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

[464]

[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

branches and to drive the fish into the nets. On both occasions during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

Construction of houses generally involves some collaboration in erecting the timber frame and in preparing roofing sheets from sago-palm leaves, but much of the construction is carried out by the houseowner alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

It is worthy of note that, except for fishing and sago-making, all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

Iemba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Iemba was absent for 86 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Hahema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

Iemba's observed activity patterns seem fairly representative of the behaviour of young unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

166 he expresses at present a preference for paid work and spent over 27 hours, in addition to
464 one full day, seeking employment. However, the only paid work he obtained was on the
461 entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 Isemba is active for an average of 49.5 hours per week. His most time-consuming
461 task is fishing, usually with friends of the same age, and this is probably regarded as
[226] recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold siporo (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of
[796] young men. A closely related activity is church attendance, which occupies over an hour a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of few diseases or pests. In Sivepe, work groups in cash cropping are no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether <u>given the existing technology, socio-economic matrix and level of productivity</u> the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

Chapter 13

Rural productivity and capital formation

It has been demonstrated that, among the men at least, there is a significant amount of unutilised labour time available and that, although the Orokaiva are evidently committed to the cash economy, individual involvement is marginal. In particular, the commercial production of agricultural crops is poorly developed. Since this is the one form of enterprise which would appear the least disruptive of the subsistence routine and which exploits the available resources of land, labour and customary skills some explanation is required.

Although no direct evidence is available, Orokaiva diet, like that of many New Guinea societies, is probably adequate in calories but deficient in protein content. The ability of adults to undergo sustained periods of hard work, either in employment or in such subsistence tasks as sago-making, suggests that diet does not impose serious limitations on their productive capacity. It is worth noting, however, that there is a marked falling off in the level of activity in Sivepe during the dry season at a time when the diet, heavily reliant on sago, is least satisfactory. Moreover, this coincides with the coffee flush.

Both villages have access to more agricultural land than is required for subsistence. Crocombe and Hogbin (1963:10) estimate that, at Inonda, there are 580 acres of 'good gardening land available', of which only 127 acres are presently required. Rimoldi (1966:20-1) estimates the Sivepe sample's requirements to be 110 acres out of an available area of 138 acres, all of which is considered suitable for cultivation. In the former village only about 5 acres are under commercial crops (coffee, coconuts and cocoa) and 4.6 acres in the latter (coffee and rubber). Accessibility may be important in the failure to plant additional areas under cash crops. The preference for establishing such plantings close to the village at Sivepe, where the initial processing is carried out, has already been noted.[1] In the case of Inonda the degree of commercialisation is influenced

[1] See pp.110-11. A
A,[See Category 361, pp. 110-111--Analyst]

Appendix 1

Sivepa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivepa							
Village	114	3	2	3	20*	98	-14.0%
Sample	63	2	1	3	17	50	-20.6%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivepa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10#
Sample	14	4.5	1-7	2.4	0.8-3.8	4#

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivepa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Period##								
	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
Inonda	1	1	nil	2	3	nil	nil	1	1###
Sivepa	3	1	1	3	2	1	1	nil	2#

* Eleven (55 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

This man served 27 years as a mission teacher and has a total 'work value' of 62.

Both served as village officials (either village constable or local government councillor) for many years.

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Appendix 2

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Sivepe and Inonda: adult male absentees, by location and employment, December 1964

	Inonda*	Sivepe
Location		
Northern District	nil	5
Port Moresby	1	7
Other Papua-New Guinea	nil	2
Employment		
Plantation	nil	3
Urban	nil	2
Agriculture	nil	1
Cook	1	nil
Police/prisons	nil	2
Technician	nil	1
Clerk	nil	2
Unemployed	nil	1
At school	nil	2

* In addition to the absentee shown here, two families had left Inonda to live in nearby villages.

121 It became evident that the best tests were those that depended least on the translations of test instruction but utilized miming procedures for maximum communication. The performance of the test items and the test itself are part of the progressive communication and elaboration of the task.

The present study

125 [121] Seven different groups were tested. These had been selected previously by the New Guinea Research Unit for special study because of their different approaches to land tenure.

A description of the samples in order of testing is given in Table 1.

It was decided to take a sample of 20 adult males from each group. Many of these had already been included in studies planned by or undertaken in conjunction with the New Guinea Research Unit.

In the village of Inonda there were insufficient adult male testees, so numbers were supplemented by ten from the nearest related group, Hohota, about five miles away. In addition, at the time of testing three men were added to the Sivepe sample from the related village of Binduta to bring the sample size to 20. At Beporo a sample had already been selected from the Kurou clan and this was supplemented by testees from six other clans to complete the sample. The samples at Ongoho and Borugasusu were just sufficient in size to be complete. The ex-servicemen sample had been previously selected for fuller study. They came from Isevene, Sangara and Girua.

[464] Plantation labourers were selected randomly from the lines of Orokaiva tappers and clearers. Plantations often draw upon one type of labourer who may or may not come from one tribe or region. Three plantations were used to reduce any bias. They were 'Awala' plantation, 'Kagana' plantation and 'Mayoh' plantation. These labourers were not the same individuals as those studied by Howlett.

The tests used

121 125 In this study an item is defined as a single unit in a series of similar units. It is complete in itself but when joined together with the other items forms a test. A test then, is a number of similar items following the same rationale. A battery is a number of tests that can be combined in any way, depending on the requirements.

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

Table 2

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

In addition to their earnings from cocoa production, Yega villagers had four sources of income.

i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5)[A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

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Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p.43--Analyst]

The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Humburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

(i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

(iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

(continued)

planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

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(iv) the strong desire of individual members of extended families each to have personal control of a piece of land and of useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;

(433) (ii) the production of crops for sale;

(242) (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;

(361) (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new which was achieved by basing the scheme on traditional precedents in so far as they were appropriate and incorporating innovations where necessary. The main innovations were organizational and technological - involving new crops, new husbandry techniques, new processing methods and equipment. There was an increase in some forms of group activity, for example bush clearing by all the Yega (whereas bush clearing was traditionally carried out by sub-clan groups), and the proposed co-operative fermentary and marketing facilities. On the other hand, a greater dispersal of residence and the adoption of new mores were responsible for some diminution of traditional forms of group activity. In pre-contact times the family was the basic unit for garden work but larger groups formed for other activities. With the addition of cash crops, agricultural work took more time and many of the larger groups for fishing and social activities atrophied.

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The rights of the individual in cash cropping land will become more marked in relation to those of the sub-clan and tribe. Whereas food gardens were held by individuals or small descent groups and rights at this level were flexible due to rapid demographic changes and the system of land rotation, cocoa is a relatively permanent crop and the planter is associated all his life with the land on which the trees are planted. With change in the legal status of the land the rights of the social group to the cash crop lands are certain to diminish in favour of individual rights.

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The new pattern of residence, showing tendencies towards 'ribbon' development and particularly towards the dispersal of homesteads, varied markedly from the traditional form. Most significant of all variations from tradition was the location of homesteads by individuals on potential extensions to their cocoa blocks. With the registration of individual title to these lands it seems likely that this trend will continue. If the trend towards dispersion

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Humburada and Ingaba-Betari. Little information was available on the subsequent operations at Humburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

CHAPTER 4 - WORK ORGANIZATION

Characteristics of the work force

At the time of our survey there were 23 persons of 15 years of age and over living in the village. One old man was very frail, and one woman who was visiting her brother while she recuperated from an injury, did no productive work. There were no girls between the ages of ten and fourteen, and only three boys. Two of the boys were temporary visitors and did not stay for long and the thrid, a lad of about ten years, was never seen to engage in any productive work. Children of nine years and under frequently helped with domestic chores like carrying water and firewood, but they took little or no part in agricultural production. This left a work force of 11 men and 10 women, though one man died during the survey, thus leaving equal numbers of each sex.

As shown in Table 9 below, all Inonda household heads except one had been employed,(1) and they had spent at least part of that time away from their home village. With the exception of those employed as teachers, village councillors or village constables, almost all the men had gone away to work before they married (and marriage was consequently delayed for these men). There was no pressing economic reason for young single men to remain in the village, for subsistence gardening is primarily women's work and such men's work as there is to do can usually be done by the head of the household. In fact the people have come to regard a trip away to work as a necessary prerequisite to adult life. It gives an opportunity to earn money (much of which is saved in order to acquire a bride on return to the village) as well as prestige, and the one man who had never had paid work was mocked on that account. Only one Inonda man was employed away from the village at the time of the survey. He was a single man who was working in Port Moresby (and was not included in the survey).

(1) There were three men who were not heads of households. Two were old men who had not had any paid work as it had not been available in the time of their youth. The other was a young man who had spent 4 years as a medical orderly. Three women had been employed - two had spent a year each as teachers and one had spent a year in domestic service.

Table 9

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Summary of years of paid work undertaken by household heads

Household	Within own village					Within own district				Other districts				Total					
	Councillor or constable	Driver	Teacher	Unskilled worker	Total	Teacher	Agric. foreman	Unskilled worker	Total	Driver	Teacher	Unskilled worker	Total	Councillor or constable	Driver	Agric. foreman	Teacher	Unskilled worker	Total
1	12				12		2	3	5					12		2		3	17
2					-				-				-						-
3		1			1			2	2	3			3		4			2	6
4	2		2		4			1	1		4		4	2			6	1	9
5								4	4									4	4
6				2	2			2	2			3	3					7	7
7				1	1		4		4							4		1	5
8			9		9	18	3	2	23							3	27	2	32
	14	1	11	3	29	18	9	14	41	3	4	3	10	14	4	9	33	20	80

It will be seen that the 7 household heads who have worked have spent a total of 80 years in employment. Only 20 of the 80 years were spent in unskilled occupations, the remainder (as councillors, constables, foremen, drivers, teachers) all carried some element of skill or responsibility.

The formal education of household heads is summarized in the following table.

Table 10

Summary of education of household heads

Household No.	Within own village		Within own district		Other districts		Total	
	Years	Standard reached	Years	Standard reached	Years	Standard reached	Years	Years x standard reached
1	-		-		-		-	0
2	-		-		-		-	0
3	2	1	-		-		2	2
4	5	3	2	4	-		7	23
5	-		-		-		-	0
6	3	1	-		-		3	3
7	6	2	-		-		6	12
8	-		10	8	3	10	13	130
	16	-	12	-	3	-	31	175

Patterns of work

The villagers claimed that they work to a pattern and that Monday and Tuesday are cash cropping days, Wednesday is for mission work, Thursday and Saturday are reserved for the food gardens, Friday is set aside for council work, and Sunday is a day of worship and rest. In fact, however, with the exception of men who are working for wages and have week-ends off, there is little in the way of a weekly rhythm in the organization of work. There is usually a short church service held

464 When wage labour is available locally it is keenly sought after by the villagers. Two men had regular work for the Public Works Department. In addition some casual work was available at various times during the year on a local construction job. All the able-bodied men under about forty years of age offered themselves for work at such times but there was not always sufficient work for all to be employed. Table 12 shows that those men who were engaged in paid work for 40 or more hours per week still spent an average of 6.0 hours on subsistence activities (this is just under half that for all men in the village). They spent much less time on social obligations and travel, and had much less leisure time. This is illustrated in more detail in Diagram 1.(1) Owing to the absence of the paid workers during the day their wives had to undertake more work in the gardens, though in many cases a young male relative of the wife came to help her from time to time.

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Table 12

Subsistence work done by men who were also engaged in full-time paid work

	Men in paid work	Total hours work on subsistence	Average hours per man
1st week	5	61	12.2
2nd "	5	nil (feast)	0.0
3rd "	No man had a full week's work this week		
4th "	1	nil	0.0
5th "	1	6	6.0
6th "	1	11	11.0
	13	78	6.0

Note: One man was omitted from the table as, though he was paid full time, he did not have to work full time and was able to do his subsistence work in his employer's time.

(1) It should be noted, however, that those who were accepted for employment were the younger, more energetic men who would probably have done more work than the average in any case.

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

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(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependants. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 68]

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available to a limited extent at a rate of £150 per year in town areas and about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

471 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the Department of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

(1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production. (1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied. (2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Daleyne is now being prepared for publication in this Bulletin.

472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had held posts involving considerable responsibility over people and property.[2]

[466] [463] 472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepe six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] [197] In all four cases the models were European, but in the case of Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocos and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocos plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

241 Later again, in line with an agricultural officer's recommendation,
472 he encouraged each son to plant individually. He proposes that his
572 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11[illegible].) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language [466] and culture groups from the employing entrepreneurs. This may well be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [62] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

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[1] Official approval was then necessary for indigenous people to go into debt.

Background experience

463 Education. Although the most successful group of entrepreneurs
472 had all had considerable education (more than three times the
871 average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 Travel. There may be a positive correlation between travel ex-
472 perience and trading success. All the entrepreneurs had travelled
484 beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 Paid work. The number of years spent in paid employment corre-
472 lates negatively with the entrepreneurial success of the sample,
464 as under:

Table 3

Years of paid work

A	15	E	10	I	1
B	8	F	5	J	8
C	8	G	7	K	3
D	14	H	13	L	4
Average	11.25		8.75		4

When level of responsibility and status is considered, however, the position reverses: those who are most successful have held jobs requiring most responsibility.[1]

Table 4

Level of job responsibility

	A	2	E	2	I 1
	B	2	F	2	J 3
	C	3	G	3	K 1
	D	2	H	1	L 1
Average	75% at level 2		50% at level 2		75% at level 1

Social relations

Age. Average age is lowest for the most successful group but this is likely to be related to the fact that educational services were even fewer before and during the second world war than they have been since.

Table 5

Age

A	34	E	50	I	40
B	30	F	46	J	26
C	37	G	26	K	29
D	40	H	45	L	21
Average	35.25		41.75		29

[1] Level of responsibility was categorised as follows: (1) policeman, cook (pre-war), welfare assistant, medical orderly; (2) interpreter, labour recruiter, foreman; (3) storeman, clerical assistant, domestic (post-war), gardener, hunter, labourer.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 602 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings No.	Period	Payment	Non-relatives from same village	Non-relatives from different village No.	Period	Payment
A	-			-	1 1	1 month 3 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3. Abandoned as unsatisfactory.	3	occasional	$2.50 per week

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
465 to pay hired labour, and are thus forced, willingly or not, to exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	
C	334	88	-	422	C	?	702
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	
G	388	52	-	440	C	7	1,800
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

245 Individual planting of cocoa was tried next, with twenty-one people planting between 20 and 1,300 trees each. The average [435] plantation size per person was 318 trees. Pests and later the sharp fall in world cocoa prices discouraged maintenance and most of the cocoa trees have now been abandoned.[1] Ten people have each planted between 200 and 560 coffee trees with moderate success. In view of this history of setbacks and discouragements there is added significance in the enthusiasm of the Ombi-Tara people for tenure conversion.

Origins of conversion

177 An Ombi man named Charles was instrumental in persuading the 464 people of the merits of conversion. He had attended the local mission school for two years and, after a year as a medical orderly at Saiho hospital, worked for eighteen months on a rubber plantation at Sogeri. Next he worked in Rabaul with two other Ombi men for an oil company. At the end of his eighteen months' contract the company returned him to Ombi. He had intended to return to Rabaul to take up a $24 a week job he had been offered as a taxi driver but was elected Local Government Councillor at Ombi-Tara and held that position for seven years until 1963. He has worked for eight months as a cook at the nearby Sangara ex-servicemen's plantations, and had intended to apply for one of the Papuan resettlement blocks at Sangara before he heard of the possibility 245 of establishing a tenure conversion scheme at Ombi-Tara. He planted 249 1,300 cocoa trees, 400 coffee trees and 300 bush rubber trees before conversion was introduced, and had planted 661 of the new high yielding rubber seedlings up to November 1965, well above the village average.[2] He has been employed full time since October 1965 on road maintenance work near Ombi.

242 Conversion at Ombi-Tara began with a visit by a resourceful Agricultural Officer (Mr D. Birmingham) in mid 1963. Noticing 249 Charles planting some bush rubber seedlings the officer asked whether he might not prefer to plant some of the higher yielding Malayan rubber seedlings which the Department of Agriculture would supply at low cost. Charles agreed and recommended other villagers to do likewise. The Ombi-Tara people agreed and a rubber nursery was established close to Ombi village soon afterwards by the

[TEXT CONTINUED ON PAGE 13]

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[1] The Ombi-Tara people's experience with cocoa demonstrates that a sharp decrease in world commodity prices can affect progress in developing countries not only by causing earnings of foreign exchange to fall, but also by so disheartening village producers that they cease production altogether.

[2] See p.32.A

A [See Category 245--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first
[178] son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.
[462]

[464] Five men were employed on maintenance work on the Popondetta-
[465] Kokoda road near Ombi for the full period of our stay, receiving $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy [464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his 602 relatives for heavy work such as the felling of 464 big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

In its attempts to stimulate production of 659 cash crops by indigenes, the Administration 423 has approved a series of land tenure laws, the 177 last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such meas- [578] ures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be- 177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P3-B]

614 No male member of a Yega clan has any rights
423 whatsoever to land outside the consolidated
block of parish territory. All Nasioi, on the
000 other hand, are members of widely dispersed
matrilineal clans. Many of them, both men
and women, have rights to cultivate land far
from their village of residence. For a Nasioi,
the focus of loyalty is not the clan as a whole
but the small segment of it with which he (or
she) is intimately associated, in the parish
where he lives.

177 The degree to which contact with Euro-
peans has affected each group differs greatly.
[245] The Northern District of Papua where the
Yega live is the scene of recent rapid de-
velopment in cocoa planting by both Euro-
peans on large plantations and by indigenes
241 on small-holdings. The Yega are a relatively
433 well-educated group of people but they have
a record of failure in the production of cash
[464] crops. Many of the younger Yega have there-
fore left the parish territory to work for wages
in skilled and semi-skilled jobs in the towns.
000 Fewer Nasioi go to work in the towns but
many have worked locally as plantation
labourers. Recently copper has been discovered
within their territory and now many men work
for the mining company which offers higher

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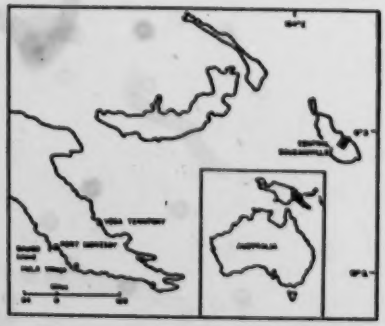

Fig. 1. Location of the three case studies

[P.4-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this

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time until the outbreak of World War II, Yega men began leaving their villages to work

466 [P.5-A]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B)

361 The new village sites also reduced walking time to the gardens.

618 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

648 701 722 727 729 659 199 177 491 361 166 [464]

178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14-B]

and Samarai. They were away from home for two years at a time and were not accompanied by their wives and children. Since the war they have not returned to indentured labour but have tried other ways of earning money.

The first such experiment was an agricultural co-operative, originated by a returned soldier who got the idea from one of his wartime Australian friends. Anglican Missionaries sponsored and directed the scheme and some money was made from cash crops of sweet potatoes, peanuts, and rice. However, when the money was shared amongst all those participating, it was a very small return for the amount of work and there was widespread dissatisfaction. The scheme was finally doomed to failure by two events—the permanent return to Australia of the mission organiser in January 1950, and the death of the Yega leader in the Mt Lamington volcanic eruption in

[P.14-B]

361 He has now cleared bush and planted gardens
423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a
458 source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was
[439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two
245 cents per pound. The discouraging effect of
433 such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined
178 above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

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423 a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

464 b) The absence of any documentary record
[476] of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in tradi-
177 tional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

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177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[657] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423] d) The location of houses on the blocks.
e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
166 of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accom-
592 panied in almost every instance by their wives
166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

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All wage-earners send a portion of their earnings to their older kinsmen who remain at

[P.17-A)

731 afterwards, but most of those who attended church that morning were killed at Sangara. All spoke of the cloud of fire that descended after the explosion. One man described how he saw it killing people ahead of him and how, with his brother, he ran past the burnt bodies. Another man told that the wind hit him and threw him down; for hours he remained unconscious and the people who were with him had all gone.

When the blast came, everyone near the mountain began to run away from it. In this mass flight, some near the edges of the area of devastation were saved by strange accidents, such as the couple who sat down to pray and then a wind came and blew the hot dust back to the mountain. This gust of wind was mentioned by several survivors. After the explosion, a very wide area, far beyond the area of devastation, became covered with a black cloud so that the fugitives soon found themselves running in total darkness. Most of the fugitives say that they fled to the Sangara Plantation, a point directly North of their villages and outside the immediate danger zone.

Sangara Plantation lay, and still lies, on the only "arterial" road of the district, which runs from certain coastal points to Kokoda; it also lay on the branch road which led to the pre-eruption government station at Higaturu and the pre-eruption mission station of Sangara. Thus Sangara Plantation became the first rallying point for the fugitives from the Sangara side of the Mount Lamington slopes. There was, on this first day, a steady stream of people descending on the plantation but it seems that to some extent this point was regarded as a haven of safety. It lay outside the area of partial devastation; the only effect of the eruption was the darkness enveloping the plantation and the scattering of debris.
[464] The plantation, where rubber and cocoa are produced, employed a number of Orokaiva men as well as men from other districts. I shall describe later how the plantation very soon became a centre for the Australian rescue and resettlement organisation. At the same time it became a base for Orokaiva men who soon began to rush back over the devastated countryside in the hope of finding relatives who might have survived.

Along the Western slopes, the eruption caused few casualties but no less terror. The greatest immediate danger to life were fallen debris, especially large stones which formed deep pits in the village grounds and demolished some of the houses. Pumice and ashes also fell over the countryside to a depth of some inches and visibility was very low. Most people moved down the mountain slope at once, along the bush tracks but mainly along the branch road running in this direction was Mr. C. Searle's estate in Awala. Like the Sangara Plantation, this lay on the arterial road to Kokoda. It seems that some of the fugitives, including those belonging to the village now called Sivepe, stayed at this plantation

245 but would estimate plantings to be about 4,000 trees, occupying
177 an area of eight acres.

Among resources which produce significant current income in
311 Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is
434 earned by men who are normally resident in the villages. When these men are married and living away from the village with their
167 families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

167 Secondly, men who return to the village after outside employment are bringing savings into the village which forms a
464 significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend
[583] it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of
434 men ordinarily working outside came home for short visits. Probably
837 the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind
613 in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

464 At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
[657] Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepa man resident at Ilimo; thus some Sivepa people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepa or Ilimo. Here the pattern suggested in the previous pages has hardly [178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I see at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new
[162] administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepa. The Sivepa people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

177 the people. He was the only white man in the district (omitting the anthropologists) who actually did this. Finally, some people
●[464] of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

The only taupa residents in the district were the head
[875] teacher and his wife; they had daily personal contact with village
[439] people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepa men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepa men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

657 Characteristically, contact between the taupa and villagers
177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to
[242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

177 829 concepts drawn from the scene of world affairs. While among the Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The political orientation displayed was a mild kind of nationalism, and [203] a sense of closeness to newly independent non-white states. But the information, derived from radio broadcasts and speeches by councillors, introduced an acculturative kind of perspective. Its dissemination is being actively encouraged by the Australian authorities.

465 [464] Use of money: Before the eruption, money played a very minor role in village life. It was earned by men who were *away* for limited periods working on plantations. Money wages on plantations were, and are, extremely low; wages for agreement labour in 1962 were, for instance, $39 per annum for the first year of which $12 is paid out in monthly installments and the rest at the end of the year. In the second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages are a great deal higher than this; most Sivepa men who were absent on employment worked on urban jobs. At the same time, a regular income was derived from coffee.

464 435 438 Sivepa men were simply not interested in jobs at plantation rates of pay, nor were they interested in "carrying" jobs for the government even though wages in that case were higher. They were also indifferent to selling their garden products on the Saiho and Popondetta markets, as there were frequent gluts, prices were low and carrying goods to market was an unduly arduous task.

436 511 Money was used largely to buy goods in the luxury rather than the subsistence sphere. Money was essential for payment of taxes and for a minimum of clothes, often acquired cheaply at jumble sales. Otherwise, it was used to buy tobacco, food for feasts, kerosene mainly used for feasting occasions, cartridges for hunting, again for feasts. Among the larger purchases made were radios, pressure lamps, bicycles, tools; all these, however, could never be paid for with current income. One had to depend on special windfalls: a gift from 454 a relative in town, a bride price. Money was not only for spending, 556 however; it was also for saving. I shall refer to the organisation of corporate saving later; in addition a number of Sivepa men had savings, of the order of $10-$20, sometimes more, hidden away. This money was kept for special occasions, but in addition, the very fact of possessing it was regarded as important. I was once told that Europeans were powerful because they had money; the Orokaiva could get power only if they too possessed savings.

436 437 If money was definitely highly valued, it was only to a limited extent regarded as a standard of value. If we accept some model such as was suggested by Salisbury (1962), we may say that the Orokaiva have three spheres of exchange: a subsistence, luxury and ritual sphere, while bank notes are used for special, often ritual occasions.

[461] In the acquisition of luxury goods of any kind, including money, the Orokaiva tend to weigh the benefits gained by them against their cost in time and unpleasantness and against the benefits that can be gained from other investments. Money is, in general, wanted only if it can

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16)[A] shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

[A] [See Cat. 116, pp. 221-222--Analyst]

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xanthosoma taro (see page 35 above)[A] to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him: in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

114 kind enough to show me this study in manuscript, I shall utilise it here. The general question with which Mr. Waddell is concerned is
464 whether earlier students of societies depending on shifting agriculture are right in saying that such societies, at least in fertile regions,
[166] have a considerable potential labour surplus. He proceeds to argue
[167] that, in the light of detailed data on the use of time in Sivepe, what potential labour surplus there might once have been has already been taken up by labour migration of male adults (which, for his sample, he puts at 37.8%). Waddell takes issue with Fisk (1962: 465) who defines economic activity as comprising only the production of food, clothing and shelter, and argues that, given the existing socio-economic matrix, all the other activities listed on his time charts (see Table 5) should be regarded as economic because they buy status and security.
[412] He also takes issue with Salisbury (1962: 216-20) who proposes that
[461] the change from a stone-to-steel technology in the New Guinea Highlands has resulted in a saving of two-thirds in the time allocated to specified axe-using tasks and who concludes from this that a vast potential labour surplus is thus created. Waddell shows, by a quantitative study of the allocation of time <u>within activities</u>, that only 38.5% of the time allocated to an activity is actually given over to the main task, and even if one includes ancilliear, and other productive tasks, this raises the proportion to less than 50% of the total time devoted to that activity. (See Table 17.1) As steel implements are used for only a portion of productive tasks, they did not, Waddell argues, make a crucial difference to Orokaiva work patterns.

114 If at the time of Mr. Waddell's study (1964), the potential
464 labour surplus in Sivepe was small, how was it possible to fit in such
461 new additional activities as the growing of coffee? Mr. Waddell was in an excellent position to discover this as at the time of his survey
241 seven of 15 households surveyed engaged in cash-cropping; he was therefore able to inquire how this affected the time spent on subsistence food production. As it happened, the median time spent on subsistence gardening by the whole sample equalled precisely the median time spent by the cash-cropping households. (12.6 hours per week, vide his Table 5:5) It appears from the table I derived from Mr. Waddell (my Table 17) how the cash-cropping families fit in this extra work: they spend a great deal less time having rests and meals. While non-cash croppers allocate only 28.4% of the time within activities to their main task, the cash-croppers allocate 50.6%. Though Mr. Waddell gives interesting explanations which account for part of this discrepancy, even if full allowance is made for these, the fact remains uncontestably that the cash-croppers simply work harder.

114 Mr. Waddell proceeds to show, by a detailed psychological
241 assessment of the cash-cropping individuals, that they are indeed the most acculturated and industrious members of the community. This
177 seems to suggest a considerable heterogeneity in working habits as between the members of the community. The author clearly shows this heterogeneity to exist as between the sexes and between different age
A,B [See Cat. 116, pp. 209-210, 223-224, respectively--Analyst]

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16 will show that the net [166] population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most striking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. [158] It seems likely that this increase should in part at least be due to [165] the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save 167 a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. Rimoldi reported that ten male siblings and sons of householders of [464] his (Jegase-Timunu) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had [614] been residents of Curumbi before they became labour migrants. There [177] were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Carombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Carombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
dispensation, the greatest favours always went to the largest villages.
167 The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
under consideration. There was the same rise in the number of children;
[464] there was little loss through labour migration (only one man in 1962;
as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
[621] explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

The Orokaiva of today has to act in conformity with two conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

There is, for instance, a taboo on using the names of affines. When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

The temporary labour migration of young men (who sometimes leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables such as shell necklaces and feathers, cooking pots, but in addition new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

There used to be a ceremony to which a boy was subjected at or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasized the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they [764] who filled the gap between the rows. The councillor had long been at [775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was [231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees [245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate. [166] Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
Hohorita were married without one. At the present time, bridewealth
[464] is reinstated, and young men go to neighbouring plantations, which are
plentiful--or else further abroad--to earn them. While many husbands
[595] worked outside Hohorita, most of them were able to return home at
weekends. Polygamy was pronounced before the eruption, but it seems
that the polygamists became victims of the eruption and polygamy no
longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
above that of Sivepe, the reasons are: better facilities during the
years 1945-1951, loss of many members of the older age groups in the
eruption, special efforts made by Bishop Hand at Irihambo to draw
Sangara into mission teaching. This higher standard is reflected in
the statistics of persons who at one time or another have been in
skilled occupations. (Table 21)[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the
average income from coffee in Hohorita is certainly far in excess of
that in Sivepe (about $100 per annum).

Hohorita does feel that it is held back by the present educational
871 provisions which are little better than those in Inonda and much
inferior to those at Sasembata. (At Hohorita, there is no schooling
beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
people compare the school unfavourably with the government school at
the Sangara resettlement block which offers Standard 6, and which,
furthermore, has more highly qualified teachers on the staff. My
own impression was that the head teacher at Hohorita is a very good
man; some of the criticism of him is no doubt due to spite, for he is
of local origin. Still, the general criticism of facilities at
Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been
frequent. The explanation may be found in the pressure, after the
disaster, to find mates when most preferred potential marriage partners
had died in the eruption. This breaking down of the endogamous emphasis
after wars and disasters is, as I pointed out earlier, traditional
among the Orokaiva.

Heterogeneity was countered to some extent by an arrangement
423 which was, according to informants, made by a popular meeting shortly
591 after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though
they had been sons. This was done in an effort, so I was told, to add men
to the depleted Sangara population. Men would thus be encouraged to
settle on Sangara land rather than take their Sangara wives home with
them. Two men from the Sasembata district are now living in Hohorita
under this arrangement. They keep up normal exchange relations with
their home district, e.g., I know one of them lent kambo for the kere

A (See Cat. 116, p. 228--Analyst)

6: Crocombe OJ23 Orokaiva OJ23

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[Further information concerning wages and salaries will be found in Category 434.]

657 scheme to Ioma and other areas. At Ioma "it was only when
245 faced with the alternative of going to gaol for failure to pay tax
466 that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

697 The standard penalty for failure to work was three
[687] months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

245 Daily work on the community coffee gardens was
625 supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine
245 Asigi villages which worked the Ongoho block.(1) The con-
[657] stables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

245 Such was the difficulty of getting labour to carry the
466 produce from the factory at Higaturu to the port of Sanananda
465 (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
●[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the or-
[492] dinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the
[493] port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol".(1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, pro-
[651] ducers were required to deliver all produce to the government depots at Higaturu, Popondetta and Buna.(2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

651 [241] proceeds to be retained by the government was paid into the Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

657 241 [871] Hulling, marketing and administrative costs incurred in running the plantations scheme were paid from the Native Education Fund. The same fund provided a coffee pulping machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in [651] the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

● 465 [211] The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each [212] man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. [435] The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places [466] where a smaller labour force was working an equally large area. In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

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(1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

Post-war community plantations (1945 - 62)

177 657 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth con- [466] siderably more than pre-war rates. However the military administration (A. N. G. A. U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

465 [434] Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce. 465

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low,(1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success. 433 241 731 433 241 [133] 433 241

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P.A.R. 1949-50 : 17 show that 40,160 man-hours were worked on the 56 acres of coffee then in production and that £767.12.3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked. [435] [465]

241 65 [466] [625 [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ...

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

465
466
434 Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation. 465 466 434

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso. 241 657

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax. 657 [423] [466] [651]

Appendix F

The Orokaiva villager's experience of cash cropping

241 177 [114]

While the writer was conducting research into communal plantations in some villages, an assistant, Mr. Edric Eupu, visited others. The following brief extracts from two of his preliminary reports indicate the natuve of the villager's experience of cash cropping, and help to explain the current lack of enthusiasm on the part of many Orokaiva for further experiments.

Ahora Communal Garden

Before the war there were four cash crops planted at Ahora: coconut, cotton, cocoa and coffee. The coconut was planted on two clans' land. The names of the two clans were Huruba and Gambe. There were three villages took part in the work. The names of the villages and clans who took part in the work were ....

245 [258]

They planted coconuts but did not make any copra. [There was no market for it at the time]. The coconut was ready to make copra, but the Government officer at Buna told the people to plant the cotton. The cotton was planted on Gambe clan's land ..... The people worked one year for the cotton without pay .... When the cotton was ready .... they picked it and took it to Buna (government station) .... and they got paid. The pay was 1/- for each man in the three villages for the work they had done for the cotton. After they got the pay the work on the cotton stopped.

248 465

245

Then government told the villagers to plant the cocoa and they planted. It was planted on Gambe clan's land. The cocoa bore and they took the pods to Buna. Government paid for the pods [but the pay was insufficient] .... Then the coffee was planted on Huruba clan's land .... The people used to work every day .... The pay for the coffee was about 5/- to every man each year. While they were still doing this the war came. After that they did not work until Mt. Lamington erupted.

[465] [133]

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only ....

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee.

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away ....

universally small and there is no evidence to suggest that any village producers are employing labour to increase production.[1]

Monetary investment at the village level is low and there are no motor vehicles owned by individuals or groups of subsistence villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

(i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

(ii) Consequences of the disasters. The effects of the war and the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16.

A.[See Category 731, p.16--Aaslyn]

are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

(iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

Anglican mission stations frequently employ school-leavers as 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

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[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents. [512] [461]

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 22 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee. [464] [465]

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house. [883]

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 76 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with [517] [461] [533] [535] [177] [578]

178 there are those indigenes who have moved temporarily or permanently away from the village economy - to take up blocks of land as ex-
166 servicemen settlers at Sangara or to find employment locally or in one of the main urban centres. With these people personal contact in economic relations persists.

166 Most of the resettlement blocks are less than five years old and still being developed. The settlers remain therefore partly
[434] subsistence-oriented and, with only a limited return from cash crops, their incomes are small. Among the Orokaiva contacts with kin are sustained since many live within a day's walk of their home
[465] villages. Most of those working within the District are employed on a casual basis for salaries of less than $4 per month from which, supplemented by rations, they derive all their sustenance, although plantation labourers frequently establish small gardens of their own. Again regular contact is maintained between them and their
[434] home village, or new links are forged, as between mission employees and neighbouring villagers. Most of the wage earners resident outside the District are permanent employees of the Administration with larger incomes than any members of the previous groups - two young men in Port Moresby were earning $9.35 and $8.27 each per week. For these people visits to the village are restricted to bi-annual leave but contact is maintained through correspondence and remitting gifts.

437 Table 10:15 details the movement of goods and services between the sample and the various groups. As might be expected, virtually all (96 per cent) of the subsistence produce acquired by the sample originates from villagers. Of produce disposed only 73 per cent is directed to villagers and over 3,000 lbs (21 per cent) go to organisations. In fact two-thirds of the latter was consumed by the researchers; however, a significant quantity is purchased by the external agencies. The movement of certain items assumes a rather
[438] different pattern in reflecting the needs and circumstances of the several groups. Virtually all the lime acquired is obtained through local wage earners or Saiho market, and all the fish through hawkers from the coast or, again, through the market. Similarly areca is widely distributed, 13 per cent of disposals going to local wage earners and 11 per cent to the market. While the circulation of such goods is insignificant in relation to the total volume of produce, the dispersal of kin over a wide area facilitates the movement of locally scarce resources. A small but comprehensive range of subsistence produce is disposed to local wage earners, reflecting the felt need among such people to supplement their restricted diet.

The exchange of labour services is, effectively, restricted to subsistence villagers, with physical separation and distinctive work patterns precluding any interaction with the other socio-economic categories. Although villagers do give considerable assistance to settlers on their blocks, this involves lengthy

[TEXT CONTINUED ON PAGE 215]

I

The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. For example, in Manusbada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

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[1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [L464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [L465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

[125]

(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependants. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 68]

245 half acres of coffee or cocoa. This would yield no income for
494 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available
[460] to a limited extent at a rate of £150 per year in town areas and
[465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

411 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an
[654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De-
[494] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

[466] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept
[511] indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 602 [777]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings — No.	Period	Payment	Non-relatives from same village	Non-relatives from different village — No.	Period	Payment
A	-			-	1 1	1 month 2 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	3	short period	$2.50 per week	used to employ 3, abandoned as unsatisfactory.	3	occasional	$2.50 per week

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

463 It will be noted that all non-relatives are paid in cash, but
472 most relatives are paid in kind. Most entrepreneurs are still dependent on the help of relatives, as they do not have the cash to pay hired labour, and are thus forced, willingly or not, to
465 exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	
C	334	88	-	422	C	?	702
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	
G	388	52	-	440	C	7	1,800
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	
K	150	-	-	150	C	9	168
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first
[178] son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.
[462]

[464] Five men were employed on maintenance work on the Popondetta-
[465] Kokoda road near Ombi for the full period of our stay, receiving $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the
information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
[464] in village life. It was earned by men who were away for limited
periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepa men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepa men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
511 the subsistence sphere. Money was essential for payment of taxes
and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
459 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepa men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was
121 a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

799 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

875 spite of this vast differential, the mission continues to recruit certificated teachers who are qualified for government jobs. These
[465] men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin
875 colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

Mission schools are inspected by departmental officers and
871 receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
871 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepo, are constantly making substantial contributions. The head teacher at Ssembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

184 The difference in pattern between the two villages may well be
197 explainable by the influence of the improved schooling and the close contact with the mission station found in Sivepa, in common with many of the other resettlement villages. These improved facilities may to some extent be regarded as social consequences of the eruption, as they were developed in the resettlement villages in the wake of resettlement to replace the earlier facilities at Sangara.

434 Money income has risen rapidly since the war. About the time
184 of the eruption, six of the present inhabitants of Sivepa were away on jobs outside the village. Not only are far more Sivepa people absent today on wage work, but the village itself has a steady income. At the time of Rimoldi's study, his sample was said to have spent annually $410 while its income for 1962 totalled $328 or $28 per household. Today this has risen greatly; the 14 coffee gardens, with over 4,000 trees, produced some 6,000 pounds of coffee, worth in all about $1,000; gifts from absent wage-earners over the year totalled at least $500 and other income (paid work, sale of products, etc.) at least $200. This makes up a minimal total of $1,700 or an average of $60 per household. I would not be surprised if actual total income was as high as $2,000 but it is very hard to obtain reliable facts. There is no doubt, however, that the coffee gardens have made Sivepa substantially wealthier, while in Inonda only the government driver has substantially improved his position since 1962, when Inonda's average household income from paid work, produce and gifts was
● [465] $33 p.a. (Crocombe and Hogbin, p. 53). The government driver's regular salary of about $700 p.a. stands out in both villages.

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	**A. Personal Emolument**	
1000 females	1,000	Council President	$ 156
Truck hire	13,000	Council Vice-President	108
Aid Post Orderlies Subsidy	1,250	Councillors	1,560
Water Supply Subsidy	3,320	Exec., Fin. Ctee	108
Aid Post Subsidy	240	Council Clerk	1,170
Adult Education Subsidy	780	Messenger	390
Miscellaneous	2,900	Landrover Driver	500
TOTAL	$38,490	Truck Drivers	1,450
		Agric. Fieldworker	234
		Market Manager	260
		Aid Post Orderlies	2,500
		Health Worker	256
		TOTAL	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
829 Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
[123] Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total
437 work output of the worker for the period he is on the job. The Orokaiva,
177 however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
177 *l'individualité du donateur.*' It rests on a notion that both worker and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

employer give something in excess of their contractual obligation. These services and gifts over and above the formal contract are a form of social exchange. Both parties seem to be expressing affection and solicitude for the other. The worker does this by special care for his employer's interests; the employer does it by 'baksheesh'. The latter are never just extra handouts or cast-offs, though these may also be given. They are usually responses to appeals by the worker who describes an emergency that has arisen for which he requires some object of usually quite limited value: old batteries, a little kerosene, etc. It is the employer's solicitude in response to a claim which gives these objects their special value (though, of course, they have some monetary value as well). This social exchange can be expressed in the following diagram:

MODEL 6

This model represents the ideal norm of the relationship, as seen by the Orokaiva. He is well aware that the reality often falls far short of the ideal norm: not all employers show affection and solicitude. It is, however, a more serious flaw of the model that the white employer would totally reject it; his ideal norm of the employer-employee relationship is a very different one that does not involve social exchange (or baksheesh) at all. There is, in fact, a conflict of ideal norms between employer and employee. The actual arrangements on the plantations, which I have briefly sketched, are a sort of compromise or accommodation between the two conflicting concepts of employment: the employee accepts the fact that baksheesh is usually rather unwillingly and rudely handed over, as being a regrettable white man's custom; and the employer somehow makes room for a minimum of baksheesh on his balance sheet.

The fact that the conflict of values remains unresolved in this relationship does not vitally threaten plantation development, but similar conflicts are not so easily sidestepped in the Orokaiva's relationship with government and the mission. Neither community development nor religious conversion will be successful without some ideological commitment on the part of the receivers of the message. Obvious though this statement is, it is worth while to spell out its implications here, as it applies to the implementation of government policy.

Policy is formulated in Port Moresby and promulgated by the Administrator in the form of ordinances and regulations. Instructions on the enforcement of these are prepared by the Department of District Administration in Port Moresby and interpreted, in the light of local conditions, by the Department's officers in Popondetta, the administrative centre of the Northern District. But how can these ordinances and regulations be enforced in the jungle by a very limited number of patrol officers? Until 1956, a rather simple procedure was used. The patrol officers appointed a large number of suitable Orokaiva as village

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4.10.1898 (quoted in Healy 1962 : 84).

Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

[131]

(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P.A.R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture. 657 241

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with. 248 245 [249] [243]

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres. 245

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60 245 466 [651]

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

466 days per year on the plantation of his village.(1) Those who worked 60 days or over were thereby exempted from head tax (then ten shillings per year). Those who did not were liable not only to head tax but also to a fine of £2 or imprisonment with hard labour for a period of three months.

245 466 Evidence is inconclusive as to how much work was required in practice. Despite the reference to sixty days' work per year, crops like coffee needed constant attention and if only sixty days per year were to be performed by each man, either work days would need to be staggered or workers rostered. At first government officers required 120 half-days, but in most villages once the crops were in bearing all men were required to attend every morning from Monday to Friday throughout the year.(2) None of the foremen had watches and it is impossible to know how long men worked in fact, but informants in widely separated parts of the area claim that they were required to work until noon in the coffee gardens. In addition, men took turns to carry the produce on foot to the government base at Higaturu every Saturday. This involved a walk of about fifteen miles in each direction from the Ongoho (Asigi) community block.

462 Women took no part in cash cropping, but they did most of the gardening. Men sometimes helped in the food gardens in the afternoons.

657 245 466 Reports of the period contain many references to the peoples' lack of enthusiasm for the scheme and heavy sanctions were applied by government officers to have their programme enforced. In 1925 the Resident Magistrate tried to extend the

(1) Men who had been away as indentured labourers were exempt from this requirement for three months after their return to the village.

(2) At several places near Higaturu people claimed that they were required to work afternoons also during busy periods. After such periods they would be allowed a week or more off with no plantation work. It seems likely that this was done in the villages close to Higaturu which were under closer supervision by the officer in charge of the plantations. In the more distant areas the officer seems not to have delegated any authority to vary the regular pattern. Humphries (1944 : 3) notes that the specified period of 60 days (he says three months) was not observed in practice and that "in fact men were called upon to work whenever circumstances required them".

scheme to Ioma and other areas. At Ioma "it was only when faced with the alternative of going to gaol for failure to pay tax that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

The standard penalty for failure to work was three months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

Daily work on the community coffee gardens was supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

Such was the difficulty of getting labour to carry the produce from the factory at Higaturu to the port of Sanananda (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

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(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the or-
[492] dinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the
[493] port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol". (1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, producers were required to deliver all produce to the government
[65] depots at Higaturu, Popondetta and Buna. (2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

Production and income

433 241 While official reports give laziness or misunderstanding as the reason for the lack of willing co-operation with the scheme, the reason given today by the people themselves is that the income was inadequate for the effort required.

Table 1 shows the total production of coffee from plantations established under the ordinance in the Orokaiva area for the ten year period 1931-40, and the amounts paid to producers for it. [435] The price per pound has been calculated and ranged from 4.5 pence (in 1932) at the highest to 2.1 pence (in 1938) at the lowest. The average price for the period was 2.6 pence per pound.(1)

433 434 245 [465] Table 2 shows that output per acre of land planted in coffee under the scheme averaged 681 pounds, which is a relatively high yield. At 2.6 pence per pound this would have given an income of £7.7.5 per acre. The total work force on all the plantations is estimated to have been about 700, so payment would have averaged £1.11.0 per worker per year, or less than 2 pence per day worked. The 15½ acres of coffee in the Ongoho block(2) would, assuming average yields, have given an annual income of £114.5.0, or just over £1.0.0 per worker, but informants today maintain that payment at Ongoho was usually 8/- to 12/- per man per year with young lads being paid 5/-. [464] Only on one or two occasions did the payout exceed £1. The total labour force in the nine villages which participated in the Ongoho block was probably close on 100 and yields per acre 465 were apparently lower than average. Enquiries at other communal plantations show that higher prices were paid in places where a smaller labour force was working an equally large area. [466] In Hohota, for example, £6 to £9 was paid per man in some years, but there the hours of work are said to have been 6 a.m. to noon six days a week, plus afternoon work at harvest-

[439] (1) The world trade depression had begun about the time the first coffee was coming into full production. The crop was marketed in Australia where it met strong competition from Java coffee.

(2) Our measurement of the planted area shows it to have been just over 15½ acres, though the area gazetted was only 15 acres.

[TEXT CONTINUED ON PAGE 17]

ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

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(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

taken as much time as the work itself for some of them.(1) 245

Under ideal conditions each worker could probably have handled one to two acres working mornings only. Such, however, was the government's enthusiasm for instilling regular work habits (or at least regular attendance at the place of work) that no roster system seems to have been worked out to ensure that workers attended for the minimum time necessary to complete their tasks. It is not difficult to understand that, though fear of imprisonment kept the project going, there was little enthusiasm for it in the villages. [466] [461]

(1) Girigirita and Oere were about an hour's walk each way from the coffee block.

Post-war community plantations (1945 - 62)

177 65 [241] Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to [461] get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth considerably more than pre-war rates. However the military [466] administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

245 466 The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

465 [434] Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

foodstuffs and for ceremonial exchanges and some urged the people to deposit their compensation money in a central fund for use by the community as a whole. Many leaders took this advice and collected large sums for the co-operatives. Some of the money was kept in the villages, but some was contributed to central funds which were held on a tribal or sub-tribal basis.

Few of the leaders had the technical knowledge to know how to handle the funds or to apply them to productive projects, and much of the money was dissipated in unproductive activities. About 1950 government Co-operative Officers were sent to assist the establishment of formal co-operatives and to save the many existing informal co-operatives from disintegration with consequent public loss of faith. The officers were able to make headway in some instances, but in other cases the funds were already exhausted and the people disillusioned. In cases where the funds remained, the government insisted on their being handed back to the original contributors before any official co-operative was formed (Belshaw, 1951 : 250).

Efforts to increase indigenous participation in commercial agriculture in the Northern District in the post-war decade had met with little success and in 1954 the Department of Native Affairs resumed pre-war patterns of promoting commercial agriculture. Additional police were stationed in the area, particularly on the inland side of the Kumusi River but to a lesser extent among the Orokaiva also. One policeman was based at each of a number of villages and each village was required to clear a community garden for cocoa planting.

The Department of Agriculture staff did not favour any extension of community planting and put its emphasis on individual cash crop gardens but, in the early stages at least, this action was strongly opposed by both the mission and the patrol staff. Missionaries who were involved feared that individual cash cropping would lead to abandonment of the villages as each individual would probably want to live near his own cash crop garden. They felt that this would result in a reduction of religious and educational activity and may lead to a resurgence of non-Christian practices. Patrol staff too opposed individual plantings at that time, in some instances it seems because of an erroneous notion that traditional agriculture was

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1)

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it.

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2)

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group.

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951.

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Appendix D

Native Regulation No. 121(1)
(Providing for compulsory planting of economic trees)

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Coconuts and other useful trees and plants

(1) It is a good thing to plant coconuts and other useful fruits and trees, and all coconuts and trees planted under this regulation shall belong to the person that plants them and to his heirs, and every able-bodied man shall from time to time plant coconuts and other useful trees and plants. The Magistrate shall fix the number of trees or the area of land as the case may be that the able-bodied men of each district or village shall plant, and coconuts shall be properly planted at a distance not less than five fathoms from tree to tree.

(2) All men will not have to plant the same number of coconuts and other useful trees, on the same area of land because some men have little land and some have much and some places are not good for planting trees.

(3) It shall be the duty of the village constable to see that this regulation is obeyed in such villages as the Magistrate directs, and if he fails or neglects to do so he shall on conviction be liable to a fine not exceeding Two shillings and sixpence or in default of payment to imprisonment for any period not exceeding Seven days, or to imprisonment in the first instance for any period not exceeding Seven days.

(4) The Magistrate shall also, where deemed desirable, order the people to plant and cultivate useful food trees along the village road so that they may all enjoy the shade and eat of the fruit.

(5) The Government may provide the people from time to time with young trees or seeds to plant, and the Magistrate will direct the people where to plant them.

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(1) Native Regulation Ordinance 1908-30.

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(6) If any native who has been ordered to plant and cultivate a certain number of trees or a certain area of land by the Magistrate wilfully neglects or refuses to do so he shall on conviction for a first offence be liable to a fine not exceeding Five shillings or in default of payment to imprisonment for any period not exceeding Six weeks, or to such imprisonment in the first instance; or, for a second or any subsequent offence to imprisonment in the first instance for any period not exceeding Three months.

Sub-clauses (7) to (9) cover minor points of detail and have been omitted.

This regulation was amended in 1946 such that planting could be forced thereafter only in the event of serious food shortages.

Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation ....

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed ....

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ...

1. Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

2. Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

3. No proportion was ever gazetted but it is understood that one half was invariably taken.

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ...

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

464 The older men in the sample were restricted in employment
166 opportunities to indentured labour usually outside the Northern
District. The young men on the other hand readily leave village
466 life temporarily to take casual work on European plantations in
the district where there is now a greater demand for labour. They
may leave their wives and children to be provided for in the mean-
time by the other side of the family or may have them accompany
them to the area where they are employed. These absences interrupt
the routine of subsistence activities for the family but the possi-
bility of this course of action is left open by local environmental
conditions and the virtual independence of the nuclear family as
a gardening unit. There is little seasonal variability and this
small group is free to resume any phase of garden activities when
and where it chooses.

431 Among the 5 able-bodied and active men of the senior group
there seems to be no consistent demand for cash which cannot be
met by gifts from their kin or affines and they have sought
temporary employment only as a means of meeting some immediate
financial requirements. With the exception of the salaried local
government councillor the older men received 78 per cent of their
total year's income of $88 as gifts.

431 By taking employment more frequently the younger men acquire
454 income which they gradually spend on the range of consumer goods
available locally as well as on kinship obligations. However,
not all income is spent in this way and, as Belshaw found in this
area (1951:11) there is both some capital available for investment
and a willingness to contribute money to funds for this purpose if
they can be organized.

The men who have spent most years in paid employment also
supplement their income by producing rubber and coffee, sometimes
with the assistance of their fathers. However, no one has invested
heavily in these crops and they provided only $52 or 15.8 per cent
of the sample's income for the year.

245 c. Commercial agriculture

(1) Coffee. Four householders in the sample have individual
coffee plots with a total of 503[1] trees on 1 acre of land. One of
these plots is a section of a former village or 'company' coffee
plot. About the time of the opening of the Higaturu Council in
1956 members of Jegase, Timumu and other groups in Sivepa
and Binduta villages participated in the planting of 2 'company'

[1] The agricultural census of 1964 recorded 1,100 trees held by 3
growers in Sivepa as a whole (162 were not yet 6 years old and 491
of the trees had been planted more than 10 years before).

249 planting was still being encouraged. The trees planted in the district were for long the only Papuan-owned rubber plots.

249 657 These trees had been planted under Native Regulation No.121, first passed in 1903 but not enforced in this division until the first world war. The legislation states that 'it is a good thing to plant coconuts and other useful fruits and trees.... The Magistrate shall fix the number of trees or the area of land, as the case may be, that the able-bodied men of each district shall plant' (Native Regulation Ordinance 1908-30).

46 249 657 [245] We could not determine how much compulsion was involved in establishing each of these 'plantations' but in 1921 the Assistant Resident Magistrate reported that planting in the district needed more supervision than one officer could provide and in 1922 the Lieutenant-Governor said that the threat of force was necessary to ensure the success of the policy of agricultural expansion under the regulation (Territory of Papua 1921-2). A particular reason for resistance in this district may have been the official priority given to rubber whereas it was reported ' the natives prefer coconuts due to their food value' (Territory of Papua 1920-1). A person who refused to plant was liable to a fine of 3 shillings or 6 weeks' imprisonment or to 3 months' imprisonment for a second offence.

249 The people of 3 villages, Pusahambo, Euru and Asina, were directed to co-operate in the planting of one of the stands near Sivepe. After the people of Asina had declined to provide land it was agreed that the plantation should be established on a parcel already partly cleared near Pusahambo. Part of this land belongs to Timumu people and part to Jegase; and although 1 Timumu lineage sometimes assert that they also hold residual rights in the Jegase section of the land, they appear never to have questioned the rights of the members of Jegase and Seho clan branches to the trees.

The only other plantation to which any member of the sample has rights is Korinasusu. This also is on land divided between members of 2 different clans, Jegase (Bebehupa lineage) and Usohu, who disputed the exact boundary when we enquired about it, but have generally been able to agree on the rights to tap the trees.

249 657 It seems that the rubber project in the district was designed so that, from the start, the owners of the rubber should themselves handle much of the production and processing. They were encouraged to plant lime trees 'so that they can coagulate latex with lime-juice and smoke a fair sheet of rubber for market' (Territory of Papua 1920-1). However, no facilities for the manufacture or processing of latex or rubber were introduced. The people claim that after the planting regulation had been enforced, the trees

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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1 Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

2 Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some 1,000 cocoa trees were also planted in the pre-war period, although only the copra and coffee were worked during this time. All commercial agriculture ceased with the Japanese invasion in the second world war and was again interrupted by the eruption of Mt Lamington in 1951. The principle of compulsion was withdrawn in the same year and community enterprise largely ceased in the mid 1950s with an increasing trend towards individual plantings. The whole scheme was characterised not only by low returns to labour, delays in payment,[2] frequent disputed claims to plantings and serious problems in work organisation, but also by a definite feeling of resentment on the part of the indigenous participants.

(c) War and natural disaster

The Orokaiva view of the government was no doubt influenced by the second world war, which led to the Japanese occupation of the Northern District from July 1942 to January 1943, and by the eruption of Mt Lamington in January 1951, causing the death of over 4,000 people and the destruction of the district headquarters and staff at Higaturu.

The impact of the Japanese invasion and subsequent Allied re-advance has never been assessed but must be considered profound. All Australian administration ceased and, when resumed, was vested in the Australian New Guinea Administrative Unit (ANGAU), a military authority. Several thousand men co-opted as carriers by both Australians and Japanese worked under very arduous conditions.[3] Since the Orokaiva lay athwart the main Buna-Kokoda route which was the scene of fierce fighting, many villagers retreated into the surrounding hills where they were obliged to subsist on very limited resources because of the absence of much of the potential labour force.[4] Others sided with the Japanese or profited by the power vacuum to attack or betray Allied troops and civilians or to assert their authority over other Orokaiva. On resumption of Australian rule, twenty-two men were sentenced for such deeds by a military tribunal and publicly hanged at Sangara and Higaturu.[5]

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[1] An estimated 111,000 trees at a spacing of 10 by 10 feet.

[2] As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

[3] For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[4] A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

[5] A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

461 Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people [464] because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 (iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are 177 the most time-consuming: 5.8 hours per man-week are devoted to the [797] external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] The local government council dictates that one day per week be [651] spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

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the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Mosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Table 13:2

Some returns to labour from cash-producing activities other than cash cropping

Activity	Village	No. of payments	Total hours worked	Return	
				Total ($)	Per hour ($)
'Marketing' pig	Sivepe	1	4.8	8.15	1.70
Contracting	Inonda*	1	54.2	36.00	0.66
Sale of timber	" *	2	56.8	20.00	0.35
Labouring, for army	"	6	7.2	2.40	0.33
Operation of trade store	" *	0	6.2 per week**	1.59 per week	0.26
Election work	" *	1	21.8	4.00	0.18
Gambling	"	8	95.0	11.30	0.12
Labouring, for contractor	"	6	323.1	36.00	0.11
Marketing fish and meat	"	19	272.7	25.70	0.09
Marketing produce	Sivepe	11	100.3	9.45	0.09
Labouring, for settler	Inonda	2	199.7	9.00	0.05***
Labouring, for road construction	"	2	157.5	8.40	0.05
Contracting	Sivepe	1	271.2	6.00	0.02
Medical work	"	1	53.7 per week	0.26 per week	0.05

* Indicates activities only undertaken by the entrepreneur at Inonda.
** All rates per week are expressed as means.
*** In addition to cash, the labourer received at least one meal of taro or rice a day.

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accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blockholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

245 434 half acres of coffee or cocoa. This would yield no income for the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available [464] [465] to a limited extent at a rate of £150 per year in town areas and about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

471 245 [654] [494] Capital: Almost no capital is used in primary production in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the Department of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 461 Health: During the period of the survey about 7% of time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

[466] [511] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in town.

472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had held posts involving considerable responsibility over people and property.[2] [466] [463]

472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepe six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur. [177]

241 472 592 423 Later again, in line with an agricultural officer's recommendation, he encouraged each son to plant individually. He proposes that his gardens should be inherited by his sons jointly, with work and profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [518] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 241 464 [654] D has no younger brothers, but he did have a government loan (though it was not intended for hiring labour). With the loan and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with its clear-cut subordination, has no traditional precedent and is [591] incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 654 The entrepreneurs have all benefited from assistance given by government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 602 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings No.	Period	Payment	Non-relatives from same village	Non-relatives from difference village No.	Period	Payment
A	-			-	1 1	1 month 2 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establish-ment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3. Abandoned as unsatisfactory.	3	occasional	$2.50 per week

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and hornbill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

137 The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

132 replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this time until the outbreak of World War II,

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Yega men began leaving their villages to work

466 [P.5-A)

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14-B]

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

424 The first such experiment was an agricul-
241 tural co-operative, originated by a returned
177 soldier who got the idea from one of his
179 wartime Australian friends. Anglican Mis-
sionaries sponsored and directed the scheme
and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in

[P.14-B]

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177 b) The production of crops specifically for sale.

(654) c) The acceptance by the indigenes of
(657) supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

(423) d) The location of houses on the blocks.
e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
(43) cash from commercial agriculture. From the time of earliest contact with Europeans some
066) of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accom-
592 panied in almost every instance by their wives
166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
(44) work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
(799) those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. This educational background has
(464) enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

659 such as his threat to chain some recalcitants to corpses they had
177 refused to bury, never entered his official despatches; other exploits led to a series of inquiries and finally to his being edged out of the service.

While Monckton's methods were never practised again by senior officers in the Northern District, the tendency for the field men to become involved with Orokaiva ways of thought and thus incur the displeasure of Port Moresby has persisted. The Higaturu Council's land registration scheme, dreamed up by Popondetta public servants, is a case of that tendency. In this case land title deeds were issued which had no validity in law but which the district commissioner would protect with his strong right arm, such as Monckton would have done most efficiently. The arrangement was repudiated by higher authority in Port Moresby. Very often relationships between white employers and Orokaiva exist on two levels: an official level where wages are paid for work done and an unofficial level where the Orokaiva receives some small extra gifts and rewards his employer with some special loyalty. These "buckshees" are a regular pattern for which some allowance is made when calculating labour costs.

659 A second and completely different type of expatriate was Mr.
731 Kaad, who was in charge of the Ilimo evacuation camp. He neither relied on threats of dire punishment nor on the Orokaiva system of exchange bargaining. He came to the Territory in 1942 with the Army and stayed to become a patrol officer. He was soon seconded with the
● [466] Department of Labour. It became his task to educate expatriate employers whose methods of treating their labour conflicted with the government's plan of improving relations between Australia and the Papuans. In particular his task was to advocate better methods of labour control than corporal punishment which had been extremely prevalent. Orokaiva informants told me that in fact corporal punishment on plantations ceased after the second world war. Mr. Kaad later became an Assistant District Officer. At the time of the eruption he had just come back from leave to move to a new post, when he was chosen for the delicate job of looking after the evacuation camp.

His task at Ilimo, as he saw it, was to help the recovery of people who "had their world shattered." He was greatly in sympathy with the new policy of promoting Papuan economic development and tried hard to make the resettlement villages he set up into foci for development. At the same time he was always flexible and ready to place the interests of recovery from shock above the interests of reorganisation. Shortly after, he was crippled in an accident. In 1967, he was teaching at the School for Pacific Administration in Sydney, training future generations of patrol officers in techniques of social and economic development which he practised before he knew them theoretically.

659 Most of the other expatriates who had dealings with Sivepe and
177 Inonda moved quickly into anonymity. The roles played by a succession of government and mission servants were undoubtedly key roles, but their contact with the particular villages was too casual for their

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434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily dis-
[464] counted because of its uncertainty. Wage labour is now available
[465] to a limited extent at a rate of £150 per year in town areas and about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

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245 duction in Inonda. The few tools needed for small scale produc-
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461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

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Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocos garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocos fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocos trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

Table 3

Replacement value of tools and equipment owned by entrepreneurs*

	A		B		C		D	
	No.	Value $	No.	Value $	No.	Value $	No.	Value $
Tools								
Axes	2	3.35	2	3.90	3	5.85	2	5.00
Bush knives	5	7.25	3	4.35	5	7.40	2	2.40
Grass knives	5	1.25	4	1.00	3	0.75	-	-
Picks	1	2.90	1	2.90	-	-	-	-
Shovels	1	3.20	1	2.40	1	2.40	-	-
Spades	-	-	3	6.15	1	2.05	2	2.40
Forks	-	-	1	2.92	1	1.70	-	-
Rakes	-	-	-	-	-	-	1	0.85
Hoes	-	-	1	1.25	-	-	-	-
Adze	1	2.35	1	2.35	-	-	1	1.50
Saws	2	7.45	-	-	1	2.40	1	4.50
Hammers	1	1.65	1	1.65	1	0.80	2	2.05
Pinch bars	1	1.50	-	-	-	-	-	-
Planes	-	-	-	-	-	-	2	8.75
Levels	-	-	-	-	-	-	3	7.20
Shears	-	-	-	-	-	-	1	0.85
Rulers	-	-	-	-	-	-	1	0.80
Total tools		30.90		28.87		23.35		36.30
Equipment								
Shotguns	1	56.00	1	56.00	1	56.00	1	43.00
Coffee hullers	1	28.00	2	50.00	-	-	-	-
Coffee pulpers	1	64.00	1	58.00	-	-	-	-
Coffee grinders	1	4.15	-	-	-	-	-	-
Pulping troughs	-	-	3	6.00	-	-	-	-
Rice hullers	1	31.00	-	-	-	-	-	-
Knapsack sprays	1	26.50	-	-	-	-	-	-
Counter scales	1	3.50	1	6.00	-	-	1	3.00
Produce scales	1	8.50	1	12.00	-	-	-	-
Water hoses	-	-	1	4.72	-	-	-	-
Buckets	-	-	-	-	-	-	2	3.70
Iron	-	-	-	-	-	-	1	9.00
Sewing machine	-	-	-	-	-	-	1	192.00
Total equipment		221.65		192.72		56.00		250.70
Total tools and equipment		252.55		221.59		79.35		287.00

* These were retail replacement values in Popondetta stores at the time the inventories were made.

474 177 241 share to the owner of the land. This activity started some time after 1947 and ceased with the eruption of Mount Lamington. It involved "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 241 [427] The pattern of production of the Sivepe rice resembles that of the communal yam gardens. There also, several men may plant together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of the Europeans. It would be unfair to say, with Kleekham, that the [829] "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

● 471 [516] Today, Sivepe has three forms of economic organisation. The dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

471 well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

471 241 621 The second type of organisation is that brought about by the Australian government's insistence on the planting of village quota's of rubber and coconut. Here, as I explained, an undivided area was planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. There is no traditional precedent for this kind of arrangement.

471 241 427 The third type is that described on the preceding page. For this system, the selected plot of land is divided into sections called tane. This is common procedure also when subsistence crops are planted. Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepa (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepa for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

474 245 In the neighbouring village of Sasembata, where a rubber cooperative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepa men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

474 443 Cooperative principles were also not infrequently followed in the setting up of trade stores. Rimoldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

his powers of black magic would be undermined by the church if he joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

One of his sons, however, did leave the village to join the A.P.C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

This son, baptised under the name of Lawrence in 1963, is now about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepe. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepe to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepe, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepe. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

Lawrence was comparatively well off, largely because he was a good coffee producer, but also because he received bridewealth from three daughters, continuing gifts from his sons in law and from the

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
● 471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader.
177 A leader, he said, must be very smart and understanding, have a lot
623 of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[157] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegase. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence
[559] disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Safho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timumu clan cut it up and sold it, giving all the proceeds to Linton's mother.

[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

• 472 224 Linton faced a similar conflict between custom and cash in his hunting activities. As the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would hunt on their behalf if they provided the cartridges and a cash payment of 10c with each

[571] cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 52.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-35. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Sasembata clinic.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 infant children, partly because he suffered from a leg ulcer for some weeks, but also
512 partly because of the social aspect of such visits.

In all, productive tasks account for 32 hours, or 65 per cent of the total for the week, and two-thirds of this amount is spent in activities in the subsistence sector. Of the weekly total of 49.5 hours, 11.3 hours or 23 per cent are related to the monetary sector and external agencies such as the mission.

472 Lawrence. Aged 36, Lawrence is the leading man and entrepreneur. He is married
159 and has four children, the eldest being a boy of twelve. Although he only reached standard IV at the mission school, he became a mission teacher and spent four of his five and a half years in this occupation in New Britain. He subsequently spent periods while resident in the village as a labourer and carpenter's assistant and served for two years as elected local government councillor for the villages of Inonda, Hohota, Mosou, Ajoro and Sewa. Lawrence acquired 230 coffee trees from his classificatory father and has rights to over 100 mature coconut palms. In 1963 he opened the trade store in the village. In November 1964 he had a total cultivated area of 1.23 acres, of which 0.9 acres were under taro. Unlike most other households, he has no sweet potato garden and only a token number of yam vines, cultivating banana, corn and Xanthosoma instead as subsidiary crops.[1] His household has a lower area of food garden per member than all but one other household and he spends less time in subsistence gardening than all the six selected individuals apart from Hemba.[2] Like most household heads, he is rarely absent from the village. During the survey he spent two days at a feast which almost everyone in the village attended, two days visiting his wife's father in hospital, two in Port Moresby with the researchers, one on work for the Administration during the national elections and one caring for his sick daughter. In addition, he was inactive through sickness - mainly influenza - for nine days.

Through a combination of several factors, including his position as senior resident member of the Andiriha clan, and the knowledge and experience gained during his periods as teacher and councillor, Lawrence is developing his entrepreneurial skills towards the

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1 The same pattern was evident for this household in 1962 (G. Hogbin: personal communication).

2 However, Lawrence's household is above average in terms of cultivated area per able-bodied person.

472 achievement of several ambitions, including the acquisition of a carpenter-built house. He spends more time on cash-producing activities than any other villager and is the recognised spokesman in all village-level contacts with the external agencies. Through his experience he was able to win and fulfil the construction contract at the airstrip, as well as arranging for the sale of hardwood trees to the Administration, which others could, but did not do. Half of the time spent on entrepreneurial activities is on the trade store and the rest mainly on the contract. As will be shown in Chapter 12, these activities are more rewarding than cash cropping, and the entrepreneur spends less than 0.5 hours a week on his coffee holding and 1.0 hour a week on copra. Paid work and the other main source of cash, marketing, account for only 1 hour a week. Altogether, involvement with the monetary sector and external agencies occupies about 19 hours a week, or 37 per cent of the total - a higher proportion than for any other villager.

[512] [461]

461 The most time-consuming activity after entrepreneurial activities is hunting, although prior to his purchase of a shotgun in July Lawrence spent very little time this way. This and other food-producing activities occupy as much time as paid work and entrepreneurial activities and double the amount spent on subsistence gardening. Productive activities in both sectors account for almost 42 hours, 80 per cent of the weekly total.

It is clear that for the entrepreneur cash-producing activities have the highest priority once subsistence is assured. In this connection, it is noteworthy that during the dry season, the intensive labour by all the men on construction of the copra-drier took precedence over other activities, but when a pig invaded his garden Lawrence spent two days in fencing and only then resumed construction of the drier.

512 [527] Marjorie. This woman is aged 21 and is married to Embogi's eldest son, who began establishing a coffee garden during the survey. They have one son, and held a party to mark his first birthday in March. Marjorie was born in Hohorita village, as were four other Inonda residents, and she was educated to standard V. Her father's brother is a teacher at Popondetta mission school, where several other relatives also work and she spent a considerable amount of time visiting these and other kin, usually taking gifts of garden produce and receiving in return storebought foods and cash. In addition to the average 2.7 hours a week spent in this way, she was absent for 13 days on visits and for another 6 days on mourning and funeral obligations when her father and her husband's mother's brother died within a week of each other. Her frequent visits and gifts to her kin were

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[TEXT CONTINUED ON PAGE 164]

444 it was not only the closest store for some 100 people, but it was also regularly patronised by passers-by and labourers on the main road.[1] For this reason, during the first 13 weeks of the survey sales averaged $10.70 a week, but over the whole period, from February 1964 to January 1965, the average was only $4.20.

472 434 The head of household 23 engaged in a number of other profitable entrepreneurial activities during the survey and the income from these is included in Table 11:13. He received $42 for organising the construction of the researchers' house; this sum was immediately used in the purchase of a shotgun. During period III, the same man organised a labour gang of fellow villagers to construct a shelter at the airstrip on contract from the Administration. For this, he received $72, of which he paid $36 to the other six men. At other times during the year, he received $20 for hardwood trees sold to the Administration, $4 for interpreting at polling booths during the House of Assembly elections and $10 from the Electricity Commission for locating steel pipes and oxy-acetylene cylinders abandoned in the grasslands after the war. (Two other men found and carried the pipes to the road at the entrepreneur's suggestion. They received $3 each and he received $8!) In addition to these sources not open to people with less experience and self-confidence, the same man acquired significant sums from sales of meat, coffee and copra and from gambling. Two fellow villagers gave $2 each and another gave coffee worth $3.32 as contributions towards the purchase of his shotgun. The wife's contribution to the household income was comparatively small at $6.90, of which $4 comprised remittances from kinsmen in Port Moresby.

511 About 62 per cent of this household's expenditure was in retail purchases from trade stores - one-third of this figure being represented by the shotgun and the rest mostly by food and clothing. The bulk of the other expenditure was in payments to the villagers who formed the labour gang. Eight dollars was spent on gun and trading licences and $2 on a fine for taking sago leaves without the owner's permission. Only about $12 (5 per cent) was disposed of in gifts to relatives. Overall, income exceeded expenditure by only $5.04, more than $3 below the village mean.

434 Household 24 has the greatest excess of income over expenditure with $56.54. Its gross income was $76.90, of which $32 were remittances from kin working outside the district, $10 was a teacher's pension from the Anglican mission and $10 was a belated payment from the Administration as a share of rice sales by Hohorita village co-operative society in 1949 and 1950. Seventy per cent of the household's expenditure was in trade stores and almost 10 per cent was in casual purchases from hawkers. The surplus cash was not

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[1] See p.61.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments, lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or marketing. With the advent of Europeans the Orokaiva became 177 familiar with the full-time entrepreneur who earned his living by 472 selling wares produced by others, by providing services such as 438 transport or the recruiting of labour, or by producing cash crops using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past 422 two generations most Orokaiva men have had some direct contact 438 with commercial enterprise, both as customers and as employees, but until recently few have had the capital or training to engage in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during 114 1962-65, as a sideline to other studies, by the writer, assisted by Mr Cromwell Burau and Mr Edric Eupu. Information was collected 126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

●492 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogerem who was not himself an Orokaiva man. He was born about 1910 in Bako village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kavamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo [443] after the invasion was repulsed, he did not remain long before returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [871] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

472 to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

472 464 The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

472 The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had [466] [463] held posts involving considerable responsibility over people and property.[2]

472 554 153 A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepe six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of [197] Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

472 554 153 marketing or the more intricate techniques of production. It does suggest, however, that they have a sufficiently clear conception of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 423 [428] [472] Most Orokaiva men established their cash crops on customary land to which they have acquired rights by inheritance from their fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 423 472 A had cleared bush land and planted coffee at Garara where his close kin had been permitted to resettle in the late 1920s. Though the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for registration of his land under the Land (Tenure Conversion) Ordinance 1963. [656]

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation. [656]

C has rights to hundreds of acres of customary lands. For his cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally [432]

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[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a [654] resettlement block with a development loan of $1,500 that he [426] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6)[A] they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet comprising himself, his brothers and some of his married children. [592] The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four [361] entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

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422 Later again, in line with an agricultural officer's recommendation,
592 he encouraged each son to plant individually. He proposes that his
423 gardens should be inherited by his sons jointly, with work and profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

422 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour
[654] occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [571] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

422 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

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441 C visits every few days and counts cash, takes stock and places
212 orders for supplies. D. manages his own store.

[592] Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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[452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of
[626] the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

At the request of the entrepreneurs, details of their individual holdings of cash are not included in this paper and can only be made available to researchers or to others with the permission of the entrepreneurs. All four have savings accounts, the average

[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

Table 3

Replacement value of tools and equipment owned by entrepreneurs*

	A		B		C		D	
	No.	Value $	No.	Value $	No.	Value $	No.	Value $
Tools								
Axes	2	3.35	2	3.90	3	5.85	2	5.00
Bush knives	5	7.25	3	4.35	5	7.40	2	2.40
Grass knives	5	1.25	4	1.00	3	0.75	-	-
Picks	1	2.90	1	2.90	-	-	-	-
Shovels	1	3.20	1	2.40	1	2.40	-	-
Spades	-	-	3	6.15	1	2.05	2	2.40
Forks	-	-	1	2.92	1	1.70	-	-
Rakes	-	-	-	-	-	-	1	0.85
Hoes	-	-	1	1.25	-	-	-	-
Adze	1	2.35	1	2.35	-	-	1	1.50
Saws	2	7.45	-	-	1	2.40	1	4.50
Hammers	1	1.65	1	1.65	1	0.80	2	2.05
Pinch bars	1	1.50	-	-	-	-	-	-
Planes	-	-	-	-	-	-	2	8.75
Levels	-	-	-	-	-	-	3	7.20
Shears	-	-	-	-	-	-	1	0.85
Rulers	-	-	-	-	-	-	1	0.80
Total tools		30.90		28.87		23.35		36.30
Equipment								
Shotguns	1	56.00	1	56.00	1	56.00	1	43.00
Coffee hullers	1	28.00	2	50.00	-	-	-	-
Coffee pulpers	1	64.00	1	58.00	-	-	-	-
Coffee grinders	1	4.15	-	-	-	-	-	-
Pulping troughs	-	-	3	6.00	-	-	-	-
Rice hullers	1	31.00	-	-	-	-	-	-
Knapsack sprays	1	26.50	-	-	-	-	-	-
Counter scales	1	3.50	1	6.00	-	-	1	3.00
Produce scales	1	8.50	1	12.00	-	-	-	-
Water hoses	-	-	1	4.72	-	-	-	-
Buckets	-	-	-	-	-	-	2	3.70
Iron	-	-	-	-	-	-	1	9.00
Sewing machine	-	-	-	-	-	-	1	192.00
Total equipment		221.65		192.72		56.00		250.70
Total tools and equipment		252.55		221.59		79.35		287.00

* These were retail replacement values in Popondetta stores at the time the inventories were made.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

Table 4

Estimated annual income of entrepreneurs ($)*
(excluding interest on savings)

	A (1965)	B (1963)	C (Average 1963-65)	D (1965)	Household average Inconda and Sivepa** (1962-63)
Sales: coffee	320	286	-	-	3
cocoa	175	***	***	50	-
copra	-	-	244	-	-
rubber	-	-	-	-	2
vegetable	-	16	-	20)	4
hunted meat	-	64	-	-)	
Gross store profits#	91	50	199	42	-
Compensation##	-	35	-	-	6
Government loan###	-	-	-	140	-
Paid labour	-	-	-	-	23
Gifts, etc.	-	-	-	-	11
	586	451	443	252	49

* In many cases these figures are estimates only.
** Crocombe and Hogbin 1963b:53, and Rimoldi 1966:78.
*** Not yet bearing
# Assessed at 10 per cent of turnover.
Paid by government for coffee trees cut to widen road.
Under a government resettlement scheme.

Table 5

Estimated value of assets in 1965 ($)*
(not including land, domestic houses or cash savings)

	A	B	C	D	Total	Average	Village householders**
Coffee, cocoa and coconut trees***	3,440	1,320	400	1,740	6,900	1,725	60 (est.)
Buildings#	500	80	100	-	680	170	-
Tools and equipment	252	221	79	287	839	210	15
Consumers durables	240	55	75	132	502	125	10 (est.)
Livestock##	-	-	-	26	26	6	24
Traditional valuables	-	87	-	-	87	22	14
	4,432	1,763	654	2,185	9,034	2,258	123

[128] * This table is based on a series of assumptions, many of indeterminable accuracy. It should therefore be regarded as indicative of trends rather than as a precise record.

** For Inconda and Sivepa householders from Crocombe and Hogbin 1963b and Rimoldi 1966. The averages per householder for each village have been added and divided by two.

[128] *** Based on valuations for the entrepreneurs kindly supplied by the Chief Valuer, Lands Department (Mr D.D. Balfour-Ogilvy). Value for the village trees was estimated by the writer, on similar criteria.

Including only those buildings used in production (a cocoa fermentary, coffee drying trays and store, and a copra drier respectively). Domestic houses were in all cases built mainly of local materials.

Pigs assessed at $10, fowls at $2 each.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

Table 6

Average hours spent per week in various tasks - men only
(not including domestic and leisure)

	Entrepreneurs				Villagers		
	A	B	C	Average	Inonda*	Sivepe**	Average
Traditional production							
Subsistence	2.8	7.3	7.0	5.7	9.6	13.5	11.5
Hunting, fishing, foraging	0.3	4.7	3.1	2.7	4.3	1.3	2.8
Building	-	1.2	4.0***	1.7	0.1	2.7	1.4
	3.1	13.2	14.1	10.1	14.0	17.5	15.7
Production for cash							
Paid work	-	-	-	-	11.3	2.6	6.9
Cash-cropping and store	25.1	19.3	14.0	19.5	0.7	0.8	0.7
	25.1	19.3	14.0	19.5	12.0	3.4	7.7
Non-economic activity (other than domestic and leisure)							
Social obligations	0.3	0.7	2.0	1.0	12.5	4.9	8.7
Travel	-	3.7	1.0	1.6	2.8	4.1	3.4
Sickness	1.7	1.4	5.0	2.7	2.6	1.0	1.8
Council, etc.	0.5	10.7	-	3.7	0.6	0.4	0.5
Church	-	3.2	8.5	3.9			
	2.5	19.7	16.5	12.9	18.5	10.4	14.4
Total	30.7	52.2	44.6	42.5	44.5	31.3	37.9

* From Crocombe and Hogbin 1963b:63.
** From Rimoldi 1966:28.
*** C built a new house during this period.

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Table 7

Average hours spent per week in various tasks - all adults
(not including domestic and leisure)

	Entrepreneurs and families*				Villagers		
	A	B	C	Average	Inonda	Sivepe	Average
Traditional production							
Subsistence**	9.0	13.0	8.3	10.1	11.7	14.4	13.1
Hunting, fishing, foraging	1.6	5.0	1.6	2.7	2.8	1.2	2.0
Building	0.4	0.9	1.3	0.9	0.1	1.6	0.8
	11.0	18.9	11.2	13.7	14.6	17.2	15.9
Production for cash							
Paid work	-	-	3.6	1.2	5.7	1.3	3.5
Cash-cropping	9.7	21.9	4.5	12.0	0.8	0.5	0.6
	9.7	21.9	8.1	13.2	6.5	1.8	4.1
Non-economic activity (other than domestic and leisure)							
Social obligations	2.6	0.7	1.0	1.4	16.2	4.4	10.3
Travel	0.7	3.3	0.3	1.4	2.9	3.3	3.1
Sickness	4.0	1.1	2.8	2.6	2.9	2.5	2.7
Council work, etc.	1.4	4.1	-	1.9	) 0.3	0.9	0.6
Church	3.2	3.0	3.6	3.3	)		
	11.9	12.2	7.7	10.6	22.3	11.1	16.7
Total	32.6	53.0	27.0	37.5	43.4	30.1	36.7

* For A this included his two resident sons and their wives, two brothers and their wives. For B it included his wife and his brother and for C his wife and his adolescent daughter.

** B and his family averaged 17 hours weekly on food gardening, but 4 hours of this has been transferred to cash-cropping as he markets surplus vegetables in Popondetta. Most of the food gardening is done by his wife (26.8 hours weekly) and brother (16.9 hours).

156 472 554 [614] [794] [631]

Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods. [514]

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

472 554 156 It is thus understandable that though the entrepreneurs are often not acceptable in leadership roles in their own villages, they are acceptable in elective roles where the selection lies with a wider community. It is likely that the stimulus they give to economic change among the Orokaiva is considerable. When they achieve their goal of owning motor transport, which gives tremendous prestige, many will consider that their 'way' has been substantiated and the impact of their example will be multiplied.

Summary

472 156 Data are presented on the four rural entrepreneurs among the Orokaiva. Because the sample is so small few generalisations can be made. All had travelled much more widely than the average villager, had been in paid employment for longer and had held posts of greater skill and responsibility than the average villager. Whereas most Orokaiva people established their gardens on their traditional lands, the entrepreneurs have deliberately not done so. The three who had developed their enterprises without financial help were all eldest sons who benefited from the labour of junior relatives. All have attempted to employ permanent labour, but none has succeeded.

472 156 461 There were marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spent less time than villagers did on subsistence gardening, but twenty times more in cash-cropping and trading; they spent much less time on traditional social obligations and much more on community leadership.

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Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
121 engaged in retail trading with varying degrees of success.[1] With only two exceptions, each owns a cash crop also. All except one are accessible by road from Popondetta. Although the sample is reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva entrepreneurs or among the non-Orokaiva entrepreneurs in other parts of the district.

121 Each subject will be signified by an alphabetic letter according
128 to the relative success of his store. The names of subjects can be made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

124 Language was a limiting factor. English was used with those who had an adequate command of it, but in a number of cases it was necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

444 Group I comprises four traders who were not operating their
463 stores at the time of the survey. Group II comprises another four whose stores had an average monthly turnover of less than $50.00.
472 Group III comprises those with a turnover in excess of $50 a month.

[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 472 452 B started his store in 1961 with the relatively large capital of $478, of which $300 was his own money, and the remainder his younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had [474] been selling goods well below cost price. Competition from a [477] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

[426] Group III. Trader I started his store with $200 which was lent him by his younger brother-in-law, who is a clerk with a commercial firm at Lae. The brother-in-law pays all store bills, and I had repaid him $104.

[451] J's trade store was managed by his elder brother, who could neither read nor write and did not keep any store books.

444 474 [499] K started his store with $390, helped by his younger brother who works in Port Moresby. K runs the store on a quasi co-operative basis, with forty-two shareholders belonging to his own and another clan. His brother contributed $200 to the initial cost, and the value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

444 L began her store with $206; when she is away, it is managed by her father.

Background experience

463 Education. Although the most successful group of entrepreneurs
472 had all had considerable education (more than three times the
871 average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 Travel. There may be a positive correlation between travel ex-
472 perience and trading success. All the entrepreneurs had travelled
484 beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 Paid work. The number of years spent in paid employment corre-
472 lates negatively with the entrepreneurial success of the sample,
464 as under:

Table 3

Years of paid work

A	15	E	10	I	1
B	8	F	5	J	8
C	8	G	7	K	3
D	14	H	13	L	4
Average	11.25		8.75		4

When level of responsibility and status is considered, however, the position reverses: those who are most successful have held jobs requiring most responsibility.[1]

Table 4

Level of job responsibility

	A	2	E	2	I 1
	B	2	F	2	J 3
	C	3	G	3	K 1
	D	2	H	1	L 1
Average	75% at level 2		50% at level 2		75% at level 1

Social relations

Age. Average age is lowest for the most successful group but this is likely to be related to the fact that educational services were even fewer before and during the second world war than they have been since.

Table 5

Age

A	34	E	50	I	40
B	30	F	46	J	26
C	37	G	26	K	29
D	40	H	45	L	21
Average	35.25		41.75		29

[1] Level of responsibility was categorised as follows: (1) policeman, cook (pre-war), welfare assistant, medical orderly; (2) interpreter, labour recruiter, foreman; (3) storeman, clerical assistant, domestic (post-war), gardener, hunter, labourer.

463 Seniority of birth. This seemed to be of positive significance
472 for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] Traditional leadership roles. The only position of traditional
[571] leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 Non-traditional leadership roles. It is to be expected that
472 Orokaiva entrepreneurs will hold responsible and respected posi-
571 tions in their community. The table below shows a positive
621 correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that
it may.

592 Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
derives from the land and social security from the fulfilment of
[366] obligatory ties which bring reciprocal returns in times of sickness,

463 old age or other need. The system was not geared toward capital
472 accumulation, nor was the bulk of material reward retained by the
602 man who made the effort. To achieve maximum economic efficiency a
366 modern entrepreneur must disengage himself to some extent from his kinship obligations. As Table 9 shows, a number of the entrepreneurs studied have physically removed themselves from the village to live near their cash crops, or have built close to, but outside, their villages. Thus while the vast majority of Orokaiva people live within a village, most entrepreneurs among them do not, and all the most successful live outside their home villages.[1] Independence, however, may place the entrepreneur in a vulnerable position. He has reduced access to the security provided by traditional ties, reciprocal obligations and religious rites within the village community, and there are at present no alternative provisions for social security.

Table 9 suggests that there may possibly be advantages in trading away from one's own village and where one is not dependent on one's villagers as customers. All three traders within their own village have had little or no success, and all the most successful groups are outside or away from their home village.

Table 9

Location of store

Location	A	B	C	D	E	F	G	H*	I	J	K	L
Away from own village (i.e. own villagers not usual customers)	'			'				'	'			'
Close to but outside own village		'					'			'	'	
Within own village			'		'	'						

* H's village is to be shifted to the present location of his trade store. He resides within his own village.

[166] Half of the least successful traders were still living in the village of their birth, whereas 75 per cent of the traders in both groups II and III were not living in the village in which they were born.

463 Of the sixty-seven indigenes in the Northern District holding
472 trading licences, twenty-three are shown in the government records
366

[1] Likewise all four entrepreneurs studied by Crocombe (1967:5) lived outside their villages.

463 to be trading within their own village and twenty-six outside their
472 village.[1] In eighteen cases store location is not specified. The
366 only indication of success provided by the licence is the period of operation for each store. This index is not wholly reliable, because a store licence is sometimes renewed when the store is no longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 Labour. The Orokaiva commonly enlist the help of relatives to
472 establish and maintain cash crops. These relatives are rarely
476 regarded as paid labourers, and are compensated with random gifts of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

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[177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463
472
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Entrepreneur	Labour							
	Extended family or siblings			Non-relatives from same village	Non-relatives from difference village			
	No.	Period	Payment		No.	Period	Payment	
A	-			-	1 1	1 month 2 months	$3/month and food - do -	
B	-			-	-			
C	3	occasional	50c per week	-	-			
D	4	6 months establishing	food	-	-			
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight	
F	-	previous casual help	food, etc.	-	-			
G	4	occasional	store goods, food and pigs	-	-			
H	-			-	1 1	1 month 3 months	$4 per month	
I	2	occasional	food and clothing	-	-			
J	1	regular	food, no cash yet	-	-			
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight	
L	2	short period	$2.50 per week	used to employ 3. Abandoned as unsatisfactory.	3	occasional	$2.50 per week	

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash to pay hired labour, and are thus forced, willingly or not, to
465 exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
427 and government development loans of $1,500, but even when they are
657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	
C	334	88	-	422	C	?	702
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	
G	388	52	-	440	C	7	1,800
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	
K	150	-	-	150	C	9	168
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

463 Trading. Almost all entrepreneurs felt that trading provided,
472 or should have provided, more reward for the effort invested than
444 cash cropping. Even those who had lost by trading wanted to return to it and C, D and E were saving their income from cash crops in order to restock their unsuccessful stores.

Table 14

Months of store's operation

A	2 (closed in Jan. 1964)	E	26	I	3
B	36 (closed in June 1964)	F	19	J	6
C	22 (closed in Sept.1965)	G	6	K	5
D	18 (closed in June 1965)	H	20	L	15
Average	19.5		17.75		7.25

The table above shows that the most successful stores are on average the most recently opened. There is a negative correlation between length of operation and trading success for each store. It may be that there is an optimum period of satisfactory functioning for stores owned by indigenes, after which custom declines. We have no evidence on this point and there are many variables on which the more successful traders differ from the less successful. Other variables, unrelated to the traders themselves, could influence the success of stores. These include the proximity of any other types of stores and the preference of some villagers for patronising co-operative stores rather than individually owned stores (see Crocombe 1967:21). The location of the store in relation to residence of the owner (see page 30), to roads and to other sources of casual custom (e.g. a plantation, a road or other construction project) is also significant. We do not, however, have measured data on these variables.

[412] Tools and equipment. All the entrepreneurs in the sample have many more tools and equipment (current replacement value averages $148.80; range $46.40 to $376.45) than ordinary villagers.[1] There is not, however, any apparent relationship between trading success and value of tools and equipment.

[1] By contrast, average current replacement value of tools and equipment per householder in three villages was $7.58 in Ongoho (Crocombe, unpublished), $18.38 for Sivepe (Rimoldi 1966:25) and $21.06 for Inonda (Crocombe and Hogbin 1963:45).

A [See Category 463--Analyst]

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

Liquid assets. The three groups of entrepreneurs show a clear progression in average savings, group I averaging $37.32, group II $212.01 and group III $322.66. The details are given in Table 17.

Table 17

Entrepreneurs' liquid assets

Entrepreneur	Savings bank	Settlers Savings Club	Shares in co-operative or cash society	Cash	Total	Average for group
A	30.00	6.00			36.00	
B	5.30		60		65.30	$37.32
C	42.00				42.00	
D	6.00				6.00	
E	300.90			62.00	362.90	
F*	2.65				2.65	$212.01**
G	?				?	
H	320.00		12.50		332.50	
I	224.00		10.00		234.00	
J	?				?	$322.66**
K	536.00				536.00	
L	198.00				198.00	

* Savings were much higher but used on brother's wife's funeral and food to supplement garden produce during drought.

** Averaged for three persons only. G did not have his account book with him and said he did not remember the amount. J is said to have substantial savings but was not home when the data were collected and his brother did not know the extent of his savings.

The loans received by the entrepreneurs are shown in Table 18. As mentioned above in connection with cash-cropping, there is a negative correlation between extensive cash-cropping and success as an entrepreneur. This is further borne out by the fact that the only three entrepreneurs to receive loans of $1,500 from the Land Board have planted the most cash crops and are among the less successful entrepreneurs.

The receipt of a loan to assist in the establishment of a store seems to be correlated positively with entrepreneurial success. It must be remembered, however, that none of the most successful stores had been open for more than fifteen months.

Table 18

Loans received

A	$1,500	(land board)	E	-	I	$200	(from brother-in-law for store)
B	$178	(from younger brother for store)	F	-	J	-	
C	-		G	-	K	$390	(from brother and share money for store)
D	$1,500	(land board)	H	$1,500 (land board)	L	-	
	75%			25%		50%	

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

Table 19

Traders as at January 1966

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	Group I	Group II	Group III
Economic variables			
Store turnover per month	-	under $50	over $50
Store outside village	75%	50%	100%
Average no. of economic trees	702	1,800	168
Traditional valuables	$31.51	$46.16	$7.50
Liquid assets	$37.32	$212.00*	$322.66*
Months of operation of store	19.5	17.75	7.25
Tools and equipment	$124.68	$177.75	$143.97
Loans received: land	50%	25%	-
store	25%	-	50%
Social variables			
Age	35.25	41.75	29
Index of education	26.7	3.75	46.7
Years of paid work	11.25	8.75	4
Non-traditional experience	16.75	10.25	11.75
Job: level 1 responsibility	-	25%	75%
level 2 responsibility	75%	50%	-
Community leadership	50%	75%	50%
More than one leadership position	-	50%	25%
No. of co-operating adult male kin	2.25	2.75	2.5
Size of present household	6.5	5.75	5.25
Eldest son	75%	25%	-
Residence village different from village of birth	50%	75%	75%

* No information on one subject in group.

The most successful traders had the smallest households, but used the help of co-operating kinsmen more than the least successful (whose present households were the largest) and less than group II (whose households were also large). The moderately successful traders depended most on the help of kinsmen, but not nearly so extensively as cash-cropping entrepreneurs previously studied (see Crocombe 1967). [592] [602]

Appendix C

Factors associated with high cash cropping activity

121 Although this study is mainly concerned with land tenure conversion, information was also collected on factors associated with high cash cropping activity which may be of interest when compared with related findings published in earlier New Guinea Research Bulletins.

249 Blockholders resident at Ombi-Tara had planted an average of
472 348 high-yielding rubber seedlings by 1 November 1965. The nine men who had planted more than the average were compared with the remainder of the Ombi-Tara population to determine whether they differed significantly in education, non-traditional experience, age, clan, religion, number of children, sources of income, responsible positions held in the village, languages spoken, cash crops planted before conversion and attitudes as revealed in answers to the questionnaire. In most of these characteristics there was a striking similarity between the nine men and the total population. However, several differences did emerge.

While there was almost no difference between the average number of years spent in paid employment by the sample and total populations, there was a significant difference related to responsibility, skills and locality of employment. The nine above average planters included six of the eight Ombi-Tara men who had been to Port Moresby and two of the three who had been to Rabaul. Jobs held in these towns tended to be of a more skilled and responsible nature than those held by other villagers. In Port Moresby two men were employed as policemen for nine and two years, one worked for two years first as a plumber's assistant and then as a labourer, and the other three each worked for twelve months as a workshop assistant (and later as a survey assistant in Popondetta for four months), an office boy, and a labourer respectively. The two men who went to Rabaul worked as painters with an oil company for eighteen months. The man who spent nine years in Port Moresby as a policeman was also employed as a domestic servant at Kokoda for twelve months, the only Ombi-Tara man to have a job of this nature.

One of the nine men is Charles[1] and another is the clan leader of the Humu clan. A third is the joint custodian with Charles of

[1] See p.11.A

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472 the Ombi-Tara village savings account, and a fourth is a man who was frequently mentioned as having had rights to very large areas of land before conversion and who appears to hold a position of high status at Ombi.

The nine men had planted more cash crops before conversion on the average than the other Ombi-Tara blockholders. They had planted an average of 321 cocoa trees (compared with an average of 108 trees for the other Ombi-Tara blockholders) and 126 coffee trees (as compared with 83). The nine men included three of the four men who had planted their own bush rubber seedlings before conversion was introduced.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

437 Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for 476 activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

472 Now, Newton suggests this was because such money-making "was 474 seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

[799] The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they [554] would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[37]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture used to be rudimentary in comparison to their precise and detailed attention to
177 tubers, especially taro. The Australian authorities had hardly established
473 themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*anara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 251

The Department of Agriculture thereupon took over the factory and began operations. The Orokaiva raised strong objections,(1) and a public meeting of about 1,200 people was held on 6th October 1959. Government officers are said to have informed the meeting that the factory was being run at a loss which was being borne by the government. Nevertheless, negotiations were then held with the council and it was agreed that in future the processing and marketing would be run by a committee to be known as the Higaturu Council Coffee Factory Committee which was to consist of the District Agricultural Officer, the Assistant District Officer (Local Government), a representative of the Higaturu council and a representative of the growers (who was not necessarily a member of the council). The committee held its first meeting on 25th February 1960 and met at monthly intervals thereafter. The day to day operation of the factory was controlled by the Department of Agriculture.

Early in 1962 it was decided that a new body to be known as the Orokaiva Coffee Growers Society would be set up to handle the processing and marketing of coffee. The society serves a wider area than the council and is independent of the council. It is run by a board of directors with an officer of the Department of Agriculture as adviser, and replaces the former Higaturu Council Coffee Factory Committee. The society is raising capital by selling shares at £5 each to indigenous coffee growers and by the end of 1962 it had a membership of 470 and a share capital of £2,350.(2) It is intended that the society should buy out the council's investment in the coffee factory. Six coffee buying centres have been set up by the society, and all coffee in the area (35 to 40 tons in parchment per year) is now bought through them and processed at the factory. The processed coffee is marketed in Australia through the Territory Department

(1) These were undoubtedly aggravated by a drop in overseas prices soon after the Department took over, and by the fact that the Department several times ran out of funds for buying the coffee and had to send growers home without payment.

(2) Late in 1962 a European planter applied to join the society but his application was disallowed on the ground that the legislation under which the society operates (the Native Economic Development Ordinance 1951-2) does not permit of non-indigenous participation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/9

657 **REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966–JUNE 1967 (*abridged*)**

Revenues		*Expenditures*	
Tax: 2000 males	$16,000	*A. Personal Emolument*	
1000 females	1,000	Council President	$ 156
Truck Hire	13,000	Council Vice-President	108
		Councillors	1,560
Aid Post Orderlies Subsidy	1,250	Exec., Fin. Ctee	108
		Council Clerk	1,170
Water Supply Subsidy	3,320	Messenger	390
Aid Post Subsidy	240	Landrover Driver	500
		Truck Drivers	1,450
Adult Education Subsidy	780	Agric. Fieldworker	234
		Market Manager	260
Miscellaneous	2,900	Aid Post Orderlies	2,500
Total	$38,490	*Total*	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		Total	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health, Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 villages)	900
		Roading (3 projects)	6,070
		Other Items	2,099
		Total	$21,434
		Grand Total	$39,212

Council were road building, improvement of water supplies, building medical aid posts, maintaining produce markets at Popondetta and Saiho and the operation [651] of trucks to provide extra revenue. Most revenue was derived from a head tax of $8 per annum for every adult male and $2 per annum for every adult female. The central government paid a 50 per cent subsidy on certain Council projects. [474] [245] Between 1959 and 1962, the Council also ran the coffee processing factory operated for Orokaiva producers, but this was transferred to the control of an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

Community rice and cocoa projects

In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally linked to the mission.(1) The main activity of the co-operatives was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

In most instances the village worked as the unit of production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary.(1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

474 foodstuffs and for ceremonial exchanges and some urged the people to deposit their compensation money in a central fund for use by the community as a whole. Many leaders took this advice and collected large sums for the co-operatives. Some of the money was kept in the villages, but some was contributed to central funds which were held on a tribal or sub-tribal basis.

Few of the leaders had the technical knowledge to know how to handle the funds or to apply them to productive projects, and much of the money was dissipated in unproductive [657] activities. About 1950 government Co-operative Officers were sent to assist the establishment of formal co-operatives and to save the many existing informal co-operatives from disintegration with consequent public loss of faith. The officers were able to make headway in some instances, but in other cases the funds were already exhausted and the people disillusioned. In cases where the funds remained, the government insisted on their being handed back to the original contributors before any official co-operative was formed (Belshaw, 1951 : 250).

657 24 Efforts to increase indigenous participation in commercial agriculture in the Northern District in the post-war decade had met with little success and in 1954 the Department of Native Affairs resumed pre-war patterns of promoting commercial agriculture. Additional police were stationed in the area, particularly on the inland side of the Kumusi River but to [466] a lesser extent among the Orokaiva also. One policeman was based at each of a number of villages and each village was required to clear a community garden for cocoa planting.

The Department of Agriculture staff did not favour any extension of community planting and put its emphasis on individual cash crop gardens but, in the early stages at least, this action was strongly opposed by both the mission and the [777] patrol staff. Missionaries who were involved feared that individual cash cropping would lead to abandonment of the villages as each individual would probably want to live near his own cash crop garden. They felt that this would result in a reduction of religious and educational activity and may lead to a resurgence of non-Christian practices. Patrol staff too opposed individual plantings at that time, in some instances it seems because of an erroneous notion that traditional agriculture was

Appendix B

The local co-operative venture

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The 3 clan branches in Sivepe have contributed to 2 joint savings accounts; one is shared by Seho and Jegase members and the other belongs to Timumu clansmen. These accounts were opened as part of a scheme involving several neighbouring villages.

In 1960 an officer of the Department of District Administration had recommended that the people in Sivepe and other villages consider opening savings accounts but they claim it was their own wish to pool their money for savings certificates in order to invest in some form of local amenity for which they had for some time been looking to the local government council.

[m]

The members of 2 clan branches at Hamburata village were the first to collect contributions under the leadership of an ex-medical orderly with 6 years' mission education, and others quickly followed their example. Soon most members of 12 clans in 7 villages, Hamburata, Sasembata, Torogata, Sivepe, Singi, Duve and Garombi had deposited money in a 'clan' account and scattered kinsmen in at least 4 other villages had contributed. Either following advice that a given figure should be the target for the first purchase of savings certificates or following an initial example, each of the 12 clans claimed to have collected £30 at first. Ten of them made a second collection of smaller amounts.

In June 1961 the Seho and Jegase people collected £30 and, as the others had already done, bought savings certificates to mature in 5 years. In July another £26 was collected and deposited but no further money has been collected since then.

Once the money had been collected advice was sought from the District Office as to how it might be invested. The plan eventually formulated was that the savings of all clans should be used to establish a trade store and later to acquire a vehicle to supply it. They were advised to arrange to have only an experienced man to manage the enterprise in its first stages and a Sasembata mission

454 teacher who had undertaken part of a co-operatives storeman's
474 course was approached for advice. They decided to attempt to finance training for co-operatives for 2 men, but it was over a year before agreement could be reached on the selection of the trainees, 2 Administration Servants employed in Popondetta.

By this time the teacher had disassociated himself from the scheme and advised the participants to discontinue it on the grounds that they had proved themselves incapable of organizing properly constituted meetings, that the villages had failed to co-operate with one another and that they would not seek the assistance of government officers. He told them that the joint accounts were unworkable and that they would need to buy individual £5 shares if they were to proceed with the scheme.

578 The development of the enterprise up to the date of our survey had been impeded by the failure to agree upon a name, an issue which those involved feel to be fundamental, and by the absence of widely accepted leadership. Meetings have been marked by disputes between local government councillors, teachers and leaders of the various descent groups participating and some decisions arrived at during meetings have not been supported by villagers who did not attend.

However, we have received some indication since leaving Sivepe that more positive co-ordination in the neighbourhood has been achieved in the meantime and concrete plans have been put forward with a view to establishing and operating a co-operative store on the main road to Popondetta (E. Waddell: personal communication). [366] There are at present at least 3 trade stores within easier reach of Sivepe than this.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

An important factor in the growth of interest in cash cropping has been the implementation of a variety of land tenure and marketing schemes, directed entirely towards the indigenous producers and in part initiated by them. Since 1957 the Higaturu council has been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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[1] See Howlett 1965, for a detailed description.

[2] See Crocombe and Hogbin 1963:89-93.

[3] Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

[4] See Crocombe and Hogbin 1963:94-6.

24 [433] holdings of commercial trees are not fully, and sometimes not at all, exploited by the owners.[1]

Most have been established on land cleared for the purpose and are seldom interplanted with subsistence crops. However, a 'catch crop' of taro, sweet potato or corn may be taken from the newly cleared land before planting coffee or cocoa and it is only now becoming common to plant commercial trees in subsistence gardens after the food crops have been harvested.[2]

245 The techniques of cultivating and processing cash crops within the village are simple. Coffee is sold in parchment form. In most cases the cherries are pulped by stamping in a creek to split them open, and then the beans are removed by hand and washed. Some villages possess pulping machines. After fermenting for about twenty-four hours in wooden containers, the beans are washed again and sun-dried. A few people erect drying platforms but most simply spread the beans on sleeping-mats in the village square. The buying agency rejects parchment that has not been adequately dried but no price differentials are applied. The coffee season extends from about March to October and people may begin weeding some weeks beforehand. OCGS announces the season's coffee price (as determined by world market conditions) some weeks before buying commences, but few producers learn it in advance and, since they need to begin harvesting a month or two before the time of sale, the element of uncertainty may deter them from maintenance and harvesting even in years of high prices. All coffee is purchased by the society, which is sometimes prevented from buying by lack of funds, lack of transport, or by the poor state of the roads. Buyers may visit only once a month or less.[3] There is scope for an immediate quadrupling of production from existing trees,[4] and more active campaigns and perhaps additional buyers might help achieve this.

474 245

245 Cocoa, like coffee, is maintained, if at all, by occasional clearing of grass and weeds from around the trees. Harvesting is carried out immediately before sale - if possible, on the same day.

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[1] The coffee trees in Popondetta sub-district in 1963 should have yielded about 200 tons of polished coffee, but the actual level of output was only 41 tons (DASF, Popondetta, File 1-6-A(4)).

[171] [2] This practice was followed by indigenous smallholders in Malaysia and Indonesia for two decades and resulted in the planting of millions of acres of rubber by the 1930s. See, for instance, Thomas 1965:101.

[3] In marked contrast to the more densely populated and more accessible parts of the highlands where competition among buyers is keen and some routes are visited daily.

[4] See footnote 1 on this page.

Introduction

Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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[1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

474 241 of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', [628] between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two [439] years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to [454] the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[423] [464] [2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[768] [3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

474 241 support, a peak number of 19 households being engaged during 1949. In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocoa pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-[731] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 241 177 797 The mission-sponsored Christian co-operative embraced more people and a much greater area than the Gombe Co-operative. The Anglican Mission at Gona is responsible for an area that stretches approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[659] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

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[1] The eight societies within the association were to be centred at Gona, Garara, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

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[1] Unfortunately no written records of the co-operative were located.

474 worked for eight. This became an important basis for resentment
241 and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of
474 dynamic growth in the co-operative movement in the district. He
241 had a deep interest in co-operatives, and had been associated in
177 Australia with the Christian Socialist Movement. He was speci-
797 fically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural
[657] Officer, Mr Cockshott. In mid-May he commenced a weekly co-
[191] operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

[782] Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed
[795] in the gardens. This aspect of the co-operative movement was
[178] regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

474 In August 1949 the first four co-operatives in the Territory
241 were registered.[1] They were, in order: Yega, Gona, Garara and
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[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognize that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income
[242] received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[659] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

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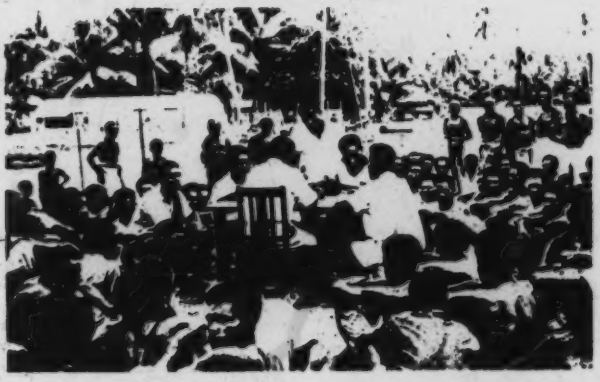

Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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Gona villages co-operative store at Cape Killerton.

roof, the store had to be rebuilt by the co-operative in 1954, on a site adjacent to the original one; it was replaced by a permanent building, constructed on a new site only 100 yards from the wharf at Cape Killerton.

Marketing was of minor importance for the first ten years of the store's operation. Although there were numerous coconut palms in the shareholders' villages, the subsistence demands on them were heavy. Very little copra was offered for sale at the store before 1962 but production increased following a renewed emphasis on the crop by the Department of Agriculture's Extension Service. Copra turnover increased from nil in 1961-2 to $254 in 1962-3 and $1104 in 1963-4. There were at the time of this study few other cash crops in production but labour was an important source of cash.[1]

By contrast the store's retail function was rapidly established. It was for 11 years under the competent control of its first appointed manager, Mr Hankin Kombega, a local Yega man who was also secretary of the society. Within two and a half years from the start of retail trading, a net profit of over $2000 was disbursed to shareholders at the rate of $0.25 for every $2 spent. Only two other rebates were paid - in November 1960 and December 1962; the rebate which would normally have been paid about the end of 1957 or early 1958 was diverted to the construction of the new store. The average rebate paid to shareholders in December 1962 was approximately $3 per head and for Yega shareholders the average was $5.10 per head. Although these amounts may sound small, it should be borne in mind that the share basis was only $10 per head. In addition, the rate of rebate (in 1964, $0.10 per $1) was much higher than that paid by co-operative societies in Australia. The inducement offered by the rebate system did influence Yega purchasers in their choice of a retail store. Of a sample group of eight men questioned, two claimed that all their purchases were made at the co-operative store, four others estimated that over half their purchases were made there, one estimated less than half and one was uncertain.

The Gona Villages Native Society Ltd was managed by a chairman, secretary and board of nine directors, all Papuans, elected by the shareholders. The board met each month and its minutes were sent to the Co-operatives Inspector in Popondetta for approval or veto. If decisions were vetoed, adequate explanation was given.[2]

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[1] See p.65.

[2] An example was the rejection of a board decision to increase the purchase price of copra from 3½ d. to 4 d. per lb. Detailed costs were calculated to show the board that at 4 d. (3 cents) per lb. they would make too small a profit margin.

474 The finances of the store were under continual surveillance
443 both by the local inspector and by the Assistant Registrar of
[657] Co-operatives in Port Moresby to whom regular reports were submitted
[454] by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 The Yega had since the early 1930s been within walking distance
167 of one of the best mission schools in the Northern District, with
[568] a European teacher permanently on the staff. In consequence young
[871] Yega men, who almost without exception left the villages to enter
[799] paid employment, were able to obtain skilled and semi-skilled jobs.
[434] In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 Expansion of membership in the G.V.N.S. Co-operative had almost
443 ceased in 1964: 561 members in 1958 increased to 578 in 1961. As
438 a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

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[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

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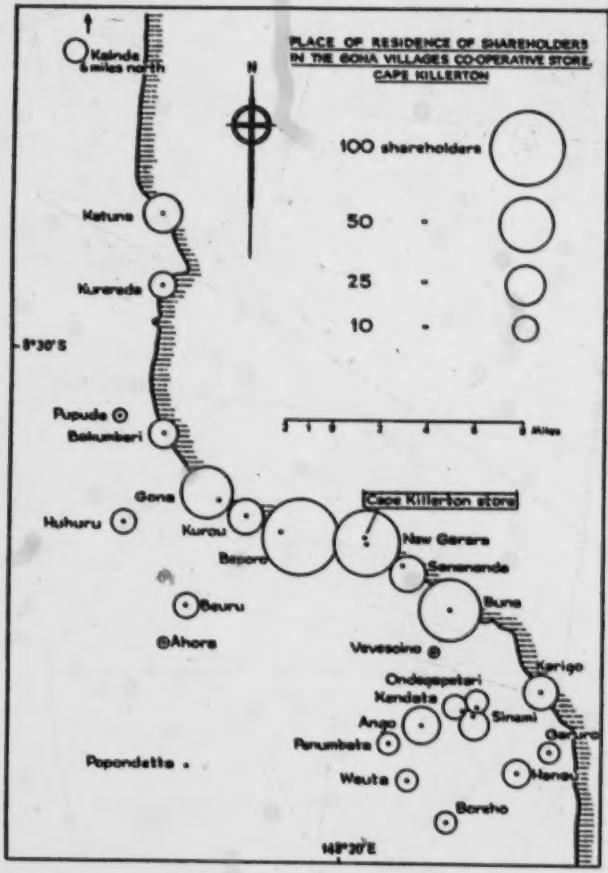

Note. At the time of joining the society Yega members lived in eight small villages but total Yega membership is shown as Beporo. In 1964 the Yega were dispersed throughout their territory in 17 localities varying in size from 30 houses to single homesteads.

474 443 438 purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

[432] Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about [521] prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

474 438 511 An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

[262] [493] [412] The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

[291] Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

474 443 [366] Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available [464] to a limited extent at a rate of £150 per year in town areas and [465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

411 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an [654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De-[474] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

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[466] [511] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 B started his store in 1961 with the relatively large capital
472 of $478, of which $300 was his own money, and the remainder his
452 younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had
[474] been selling goods well below cost price. Competition from a
[471] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

[426] Group III. Trader I started his store with $200 which was lent him by his younger brother-in-law, who is a clerk with a commercial firm at Lae. The brother-in-law pays all store bills, and I had repaid him $104.

[451] J's trade store was managed by his elder brother, who could neither read nor write and did not keep any store books.

444 K started his store with $390, helped by his younger brother
474 who works in Port Moresby. K runs the store on a quasi co-operative basis, with forty-two shareholders belonging to his own and another clan. His brother contributed $200 to the initial cost, and the
[499] value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

444 L began her store with $206; when she is away, it is managed by her father.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

(439) An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was
[654] provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

The first such experiment was an agricul-
474 tural co-operative, originated by a returned
241 soldier who got the idea from one of his
[177] wartime Australian friends. Anglican Mis-
sionaries sponsored and directed the scheme
[799] and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in
[P.14-B]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949, "Co-operative Rumours Kokoda Sub-District."

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

657 a Co-operative Officer was posted to the Northern Division. His later reports cast
474 further light on the nature of the movement.[8]

When the movement first appeared in Kokoda its apparent objects were to produce rice, as did the more regular co-operatives of the coast, and to build a store at Killerton, the port, apparently with the object of cutting costs. The rumours held that it was an order from the King that co-operatives should be formed, and that there had hitherto been no co-operatives in the area because the Government was angry with the natives for killing some Europeans during the war. Further, the co-operatives would have " bosses " appointed by the mission teacher who led the movement, and as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs. At this point the movement seems to be very similar to a watered-down version of the " Masinga Rule " movement of the Solomons; but there is no clear evidence that there was actually a cargo cult.

The first duty of the Co-operative Officer was to regularize the position of these people, and to do this he visited the villages to obtain lists of contributors of money. He met with some resistance as a government agent, but seems to have been very successful in obtaining public confidence and in most cases lists were made. In accordance with official policy, the money was then handed back to the contributors, with the promise that regular co-operative activity would be supported and that contributions could be collected again when the people were ready for it. The Officer then moved to the Periho area, where the same situation obtained, and began to hull rice. At this stage the volcano erupted.

The reports of the Co-operative Officer at this time were frankly pessimistic. Many people refused to allow him to hull the rice when it was grown, though demonstration hulling tended to alter their viewpoint. The Officer interpreted this as showing that the people did not understand the objects of their activity, and that
[777] they were not ready for co-operation. In fact, however, the position was complicated by the way in which the co-operatives had grown up as Mission-sponsored organizations, and the resistance seems to have been not so much to the idea of production, but to the intrusion of Government in a field the people wanted to keep for themselves, with Mission assistance. Government assistance was nevertheless very necessary, as the Mission had allowed crops to ripen without hulling and in general took an unrealistic view of business aspects of the movement.

At the same time it is true that the people were vague and mystical about their activity. Co-operative gardens and co-operative houses were made. The gardens were to produce rice and vegetables for sale. The principal feature of the activity seems, however, to have been religious rather than agricultural. A cross was erected overlooking the garden, and prayers were said before activity took place. The gardens were far too small to be economical—smaller indeed than many gardens of

[8] Co-operative Inspection Reports 1950-51, Co-operative Officer Northern Division to Registrar of Co-operative Societies.

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

individual villagers. The houses were built on a standard pattern, not, as might be thought, to act as warehouses or storehouses or as offices, but as eating places for the co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timbeki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

241 villages had to be abandoned at the time of the eruption and rice
177 growing was never resumed. The growing of rubber by Orokaiva in
the Northern District has a long and somewhat unhappy history which
[243] will be referred to later; at the time of the eruption, just before
the Korean War drove up the prices, the rubber trees planted by
249 the Orokaiva were hardly harvested at all; Rimoldi reports that
311 in 1963 the existing stands at Sivepa were tapped to some extent
and the coagulum sold to a factory at Awala. There were six tappers
177 in his population sample of 50, who together earned $70 in one year.
[434] When I began my field work, the tapping had ceased as the factory
was no longer buying indigenously grown rubber, but a rubber
[474] cooperative was set up early in 1967, with the encouragement of
the Department of Agriculture, in a village about one mile from
Sivepa. The Department of Agriculture was also encouraging the
people to plant superior Malayan rubber trees and two men had
planted 250 and 72 trees respectively. Rimoldi reports that
"members of the clans now represented in Sivepa and Binduta"
owned four plots ranging from less than half an acre to about
three acres in area.

Since that time, however, a new plot has been established,
four and one-half acres in size, on which theoretically seven
men were to establish rubber stands. The Malayan trees were
planted here, as well as self-sown trees from the other plots
which were dug up and replanted. These plantings occurred shortly
after Rimoldi left. If the new cooperative venture succeeds, it
is likely that the new plot--most of which still remains unplanted--
will be exploited, but people were clearly waiting to see whether
sales at attractive prices would eventuate.

Orokaiva coffee plantations are wholly a post-eruption
245 development, inaugurated by the Agriculture Department shortly
177 after it was set up in Popondetta and greatly strengthened by the
311 setting up of a coffee cooperative, first under the Higaturu Local
Government Council and later independently. First plantings in
Sivepa were before 1954, in Inonda in 1955. Rimoldi reported that
in 1964, there were 1,100 coffee trees in Sivepa, owned by five
growers. Crocombe and Hogbin reported 801 trees in Inonda in
1962, owned by three households. Since that time, Inonda has not
added to its plantings, but Sivepa, along with the whole of the
Saiho Division, has greatly increased its cash-cropping activities
[434] since the 1964 census. The number of growers has increased from
five to 14--every able-bodied man in the vigor of life has his
coffee garden from which he derives an annual income of between
$50 and $100. This increase is the result of vigorous encouragement
of plantings by the Agriculture Department, a change of ideology
under the impact of the Local Government Councils and a great
improvement in the marketing arrangements. In 1966, Sivepa coffee
was collected and promptly paid for in Garombi village, about 15
minutes' walk from Sivepa. I did not take another coffee census

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepe and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245] [994] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

654 The rubber plantings followed a quota established for each village;
177 in practise, a village man would make one of his garden plots available
571 to the community at large and all the village trees would be planted
476 there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

474 It is paradoxical that the Australians, after first encouraging
177 this group orientation, soon found themselves fighting against it, in
241 the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966).
[777] It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 50)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers" consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Waseta and each man took his own rice back home, giving a

474 share to the owner of the land. This activity started some time after
197 1947 and ceased with the eruption of Mount Lamington. It involved
241 "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 The pattern of production of the Sivepe rice resembles that
241 of the communal yam gardens. There also, several men may plant
[427] together in the garden of one of them; the users are then expected to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of
[829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 Today, Sivepe has three forms of economic organisation. The
[596] dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

471 well as cash crops. The clan or village has overriding rights to the product only when a feast is being held; at such a time, people are encouraged to make extra plantings and are expected to donate what has been grown in excess to their own requirements. Such donations are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the
241 Australian government's insistence on the planting of village quota's
621 of rubber and coconut. Here, as I explained, an undivided area was planted by "all" members of the community, and the product appropriated by individuals on a sort of roster system. The land remains owned by the individual who made it available and it will revert to him when the trees die off. It is only the trees that are "communally" owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called
427 tane. This is common procedure also when subsistence crops are planted. Each tane is then lent to a person who will plant coffee or rubber there. This lending of tane is likewise traditional; a man described how his sister, after a quarrel, came back to Sivepe (she had married out) and he at once gave her a tane from his new garden to look after. The only difference, in the case of tree crops, is that the tane is lent out for a longer period, in fact as long as the borrower continues to harvest the trees (regularly). No new "communal" coffee plots of this sort have been established in Sivepe for many years; there was, however, such a plot allocated to rubber around 1964, as I have described. It was called a "company" and the agricultural officer told me that the government did not like supporting these "companies," preferring development of "individual holdings."

479 In the neighbouring village of Sasembata, where a rubber cooper-
245 ative was set up, a new variant developed in 1967. This was also called a "company;" its main asset was a small factory for processing the rubber. The "company" was also allocated a plot of land, owned by a village man, where trees were planted by a work group, with the intention of tapping and selling the rubber for the benefit of the company--there was some talk of saving up for a truck to cart the rubber and other village products. In addition, villagers planted trees on their individual land and rubber harvested from that land would be processed at the factory and proceeds would go to the grower. This scheme met with some sturdy opposition from the agricultural officer. The fear of the administration was always: cargo cults, communism, fraudulent accounting. Four Sivepe men were actively occupied for some weeks on helping to build the rubber factory. They also contributed $10 membership fee. Members were drawn from all villages closely related to Sasembata.

474 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such venture, involving 11 villages and centred on the Sasembata mission station. The savings seem to have totalled $60 from each of 12 clans,

474 plus other amounts of unknown size--enough for the projected establish-
443 ment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuma clan, to which Rimoldi refers, were lost along with the Jegase savings.

454 In 1966, two group savings accounts were in operation. People
621 had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

479 The only cooperative effort known to me at Inonda was a regular
439 arrangement by which vegetables grown at Inonda were carted to the Bubi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

571 Finally, a notable aspect of social organisation in the post-
[554] eruption period is the emergence of leaders whose authority rests on
[177] two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted)
654 but only to recognise them as an effective source of compulsion. The
571 people of Sivepe, as well as Hohorita were very much aware that the
623 position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

731 657 the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

452 657 Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepe and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

245 652 The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself 245 purchase coffee but when the Higaturu Local Government Council was 474 formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later [654] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold [439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepe coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

654 242 The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

622 orderly. This man, like the "committee" in Sivepa, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hohorita pursued ends likewise
● 474 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
952 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 The composition of this committee was interesting: it did not
452 include the councillor, but consisted of the head teacher at Hohorita, and a priest and a public servant both resident in Popondetta. All three belonged to the Hiveopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmovers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made much difference here. For instance, nobody in Sivepe, discussing [478] savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant
[161] clans of the front village section were Horsopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found.
[597] Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages
[423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[37]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

appears to be the standard response to lack of time, rather than foregoing coffee.

22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to tubers, especially taro. The Australian authorities had hardly established
473 themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

[TEXT CONTINUED ON PAGE 25]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[946] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

241 rodent attack. A hardwood planting stick (ti) is used to loosen the soil, though occasionally shovels are used to make mounds for sweet potato runners and tubers, or for yams. Sugar cane and pitpit are planted either in clumps of suckers or in lengths or 3 nodes but bananas are propagated only from suckers.

Maize, cucurbits and tobacco are planted before or with the main crop of taro. They usually grow best near stumps or logs, perhaps because they benefit from extra potash and humus.[1] Tobacco seeds are thrown near stumps and when seedlings are about 6 inches high they are transplanted throughout the garden. Numerous varieties of taro (Colocasia spp.), distinguished by their colour and stem and leaf shape, are propagated by suckers. The suckers are placed in holes 6-8 inches deep and spaced about 2 feet apart. A small amount of Xanthosoma taro is planted, usually on sloping ground, and not necessarily in the main gardens. Yams are planted in separate areas if planting material is plentiful. Otherwise they are planted at random through the garden. Two common varieties are recognized.

Sweet potato is grown only in small quantities as a supplementary diet to the taro. If it is planted among the taro, the planting is delayed until the taro is suckering. Small plots are often made in a taro garden after most of the taro has been extracted. Minor crops found in the gardens are cabbage, manioc, beans, tomatoes, ginger, shallots, pineapple and pawpaws. (Table 1.)

Gardens are usually weeded 3 times. Weed infestation becomes too heavy to handle at this stage, but crops are mature enough to compete successfully and shade from the weeds is claimed to benefit the taro.

417 [136] Fencing is not as extensive or elaborate as in many Orokaiva areas, due to a scarcity of wild pigs. Gardens are usually made on sites at a distance from the village which is considered too far for domestic pigs to wander. Despite this precaution, 2 men had their gardens spoiled by village pigs just before our visit.

Fences are raised to a height of about 4 feet by piling logs horizontally on a broad base and securing them with perpendicular stakes. In most cases the fence is erected only on the garden border which is considered most accessible to pigs. This is often done after the area has been planted. The barrier may be extended later if another side is found to need protection.

[241] [476] A virtual absence of wild pigs is partly responsible for the tendency for the gardens to be scattered. In other parts of

[1] Cf. Vicary 1960:188.

241 476 417 Orokaiva territory where more effort is devoted to fence construction it is more common for the members of a village or a local patrilineal group to cultivate contiguous plots and to co-operate in the construction of one fence to protect several gardens. This reduces the total labour required for the task.

Table 1

Food plants per household*

Crop	Average	Range
Taro (Col)	0.97 acres	0.39 - 2.30 acres
Sweet potato	0.07 acres	0 - 0.20 acres
Corn	223 plants	0 - 442 plants
Bananas	71 trees	35 - 126 trees
Pitpit	88 clumps	0 - 400 clumps
Sugar	34 stools	11 - 54 stools
Yams	65 vines	0 - 136 vines
Taro (Xanthosoma)	28 plants	0 - 91 plants
Native cabbage	22 plants	0 - 100 plants
Pawpaw	17 trees	5 - 32 trees
Beans	17 plants	0 - 110 plants
Cucurbits	13 vines	9 - 28 vines
Shallots)		
Manioc)	a few plants	
Ginger)		
Tobacco	18 plants	0 - 59 plants

*12 households.

On the other hand, a total of 1 acre of taro planted in scattered plots involves more clearing than the same area planted in a continuous block of gardens. Several gardens in 1 block would have a smaller total perimeter adjoining the bush where there is usually a margin of cleared land which is never planted. The dispersal of garden sites facilitates natural reseeding of fallow land from the surrounding bush.[1]

It is difficult to arrive at an average figure for the length of the cultivation - bush fallow cycle. One particular difficulty is the fact that the clearing of a plot is often done progressively. As one section of the garden plot is cleared by a household, it is planted and then adjoining sections are cleared and planted. In some but not all cases the successive areas may then be allocated to different members in the household, such as a woman - a married sister or a brother's wife - whose husband is absent. Since few vegetables can be stored for long, this method of clearing the

[1] Conklin 1957:145.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments are small and communities composed of several, permitting local endogamy and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
[164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them.
[797] The amount of time devoted to subsistence and cash crop gardening was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

614 clan branch claim that in the years before contact Jegase men extended their control over areas of land northward from this area toward the territory of the hostile Togahau and Divinikovari. They claim that this expansion was restricted by pressure from enemies but it is difficult to determine how often open conflicts preceded settlement in these outlying areas or how much it was limited rather by expansion of descent groups within the tribe or of other local groups.

The pattern of fragmented landholdings of local clan branches is said to be due to the fact that members of allied clans would move into an area of unoccupied land about the same time to clear contiguous areas. Any descent group which later found its holding no longer adequate for immediate needs and wished to open up new land would often find the surrounding land already settled and would move to the edge of the area so far appropriated as gardening land by the members of these groups. The explanation sometimes given for the existence of an enclave of one clan branch's land within another's is that a Jegase man, for instance, had lived with the Seho people holding the larger area and had cleared virgin land near them.

[476] The men exploiting new land often worked in association with some of their co-resident clansmen but the apparent lack of regular co-operation between members of patrilineal groups larger than the expanded family in opening up unoccupied land may account for some of the present scattering of clan branch land or even of the areas occupied by separate branches of 1 clan.[1]

[425] Informants stated that the initiative in establishing rights to previously unoccupied land was taken by individual cultivators and that the land which they acquired was retained by their lineal descendants.

[613] Some people suggested in answer to our questions that subdivision and further fragmentation of areas of Jegase territory, now identified with one or other of the lineages, occurred where large numbers in successive generations settled within, and made more extensive use of, one after another of the areas where an ancestor had been first to claim land or had at some stage effectively occupied it.

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[1] Norton (1962:6) gives a similar explanation of fragmentation and suggests that it occurred more often after the extension of administration control when the co-operation between members of separate clans formerly residing together for mutual protection was carried over into the activity of opening up areas further afield from their village.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
[611] clan of his or her father. All members of a clan claim, but cannot
necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which
trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[592] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. [476] For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and '<u>hingi</u>' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach maturity. [417] In the less densely settled areas where wild pigs are common, such as Inonda, most gardens need to be fenced; when [136] separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (<u>Colocasia</u>) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (<u>Xanthosoma</u>) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4). A A

[2] See p.23.

A, [See Category 102, p. 38--Analyst]

461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] [592] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait is clearly reflected in their work patterns. The household, comprising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]

Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site, and as such they are normally seen to comprise less than two adults. [476] The main exceptions are activities where collaboration is specifically

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[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 116]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

[461] required, in particular sago-making and house construction.[1] In the case of the former about eighty man-hours per day should be [476] expended on a mature tree if the sago is to be produced before spoiling,[2] while in the latter assistance is specifically needed to erect the timber frame and put the roof in place.

Some social significance can probably be ascribed to other activities with a mean size of work group exceeding 2.0 persons. This applies particularly to the preparation of roofing sections and to fishing, both of which have an important recreational component either in the form of conversation or 'picnicking'. In the case of yams, where the mean size of work group is 2.5 persons, the tuber is considered harder to harvest than taro because it develops at a greater depth, and larger quantities are harvested at a single time for storage. However, as with sago-making, an important consideration in rendering assistance is undoubtedly that the service will be reciprocated either immediately or subsequently with a quantity of the foodstuff involved. Both are perceived as 'hard' work and the question of cost-benefit is therefore seriously considered in deciding whether to render assistance. The difficulty experienced in mobilising a sago-making work group when there is no widespread shortage of food is evidence of this.

The large work groups associated with the marketing of the two main subsistence crops, taro and sweet potato (4.3 and 2.6 persons [462] respectively), are to some extent misleading. In virtually all cases the marketing was done at Saiho by women, each selling her own produce. The approach to marketing these crops is very different from that of cash crops - one woman decides she will take some produce to Saiho and a number of others then decide, very much on impulse, to follow suit.

Relatively large work groups are associated with a number of cash cropping activities. This is particularly true of coffee,

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[1] In fact these activities comprise a number of distinct tasks and if we are to be consistent in our categorisation we should therefore speak of 'taro-producing' rather than isolate the several tasks involved. Then, given the type of work allocation and sequence described above, the work groups associated with taro-production approach those of sago-making and house construction. In spite of these apparent inconsistencies in the method of categorisation, the fact remains that taro-producing activities are not necessarily collaborative and they are distributed over an extended period, while collaboration is actively sought (and required) in the other cases and the activities are restricted to a much shorter time span.

[2] If a household decides to extract sago without outside assistance an immature tree is normally felled.

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most [224] successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

Because of relative unfamiliarity with most forms of co-operative [476] effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

128 The activity patterns of selected individuals

The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 35 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village.

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1 See p.292. A, [See Category 433, p.292--Analyst]

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his position being acknowledged by the widest range of people. Although in no sense a 'director' of village affairs he was the last villager to receive an otohu[1] and the first to obtain any formal education.[2] His position is therefore derived from his apparent ability to encompass both the 'old' and the 'new' ways, thereby gaining the respect of most members of the community. This elevation in his status is a recent development, not evident during Rimoldi's stay in the village, and in all probability influenced by the fact that he is an adopted member of Timumu clan and only 38 years old.

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A married man with five children, he lives next door to his ageing step-father and mother giving them, as well as other older villagers, considerable gifts of food and assistance with such customary group enterprises as clearing garden sites, harvesting yams and house construction. Further, with an age mate from Saho clan, he accepted full responsibility for the organisation of the major sago-making venture during the dry season, at the request of his mother's brother. Among younger members of the village his stature is derived from extensive experience in paid employment[3] and his active interest in and responsible approach to cash-producing activities within the village.

Linton has the largest cultivated area of those surveyed and the largest holding of yams. Also, being the owner of a shotgun, an active coffee grower,[4] an OCGS shareholder and, during the survey, erecting a house of local materials under contract for Saiho hospital, his commitment to the external economy is both varied and substantial.

1

The otohu was an ornament presented to selected initiates which conferred on them important social obligations. In a discussion of the nature and purpose of the otohu Williams (1930:204-5) states: 'Adjectivally, the word seems to indicate "well-behaved" in the widest sense of the term. It was applied to a law-abiding and amenable member of society, and perhaps the nearest equivalent in our language would be "decent" or "respectable". The emphasis is certainly laid on the milder virtues rather than the more heroic. Thus a man was otohu or otohu-emho who did not quarrel, who did not beat his wife or children, who did not ill-treat his dogs and pigs, and who did not steal.... Diligence bears some part of this rather complex ideal, and so certainly does generosity....

We may conclude, therefore, that the possession of an otohu does involve a social obligation. It is an honour and a privilege bestowed by society, but it means that the recipient should settle down as a thoroughly amenable member of that society.' In Linton's case the otohu was presented at a specially arranged ceremony, apparently in acknowledgement of his upholding of traditional Orokaiva values.

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He spent a year at Isivita school prior to the second world war.

3

A total of 9½ years spent, largely in an unskilled capacity, in Port Moresby, Lae, Salamaua and elsewhere in the Northern District.

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Although without a coffee garden of his own, he has successfully asserted a claim to trees acquired by another Timumu man following the subdivision of a communal planting established about 1956. See Rimoldi 1966:83-4 for a description of this planting.

The organisation of work by households

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

[TEXT CONTINUED ON PAGE 143]

ancillary tasks, other tasks unrelated to the main task, cooking and washing. 461

The activity observed most frequently was forest clearance. Over twelve occasions, the main task occupied 44 per cent of the total time. Due to the intensive and exhausting nature of the work, resting and eating occupies one-quarter of the time. For the same reason, almost one-third of the time spent on sago-making is in resting. Sago-making is the most intensive of all the activities practised by Inonda people: the observed occasions have a mean duration of over eight hours, 50 per cent of which is spent on the main task of producing the starch. Subsistence gardening tasks are in general less intensive than sago-making or clearing: travelling to the place of activity accounts for a higher proportion of the time, and work on the main task and other tasks amounts to less than half the total. Resting, however, accounts for less of the total than it does with sago-making. The planting and harvesting of taro appear to involve the most intensive work in gardening.

Overall, time spent working on all tasks as opposed to time spent resting or travelling appears to be between 50 and 60 per cent of the total. There is no significant difference between cash croppers and non-cash croppers. The latter tend to spend a greater proportion of their time in travelling - perhaps because they are mostly older people. Time saved in travelling by cash croppers seems to be used as much for leisure as for productive work.

The nature and size of work groups

Most activities are carried out by individuals working alone (see Table 7:15), although husband and wife often perform separate tasks in the same garden. Tasks in food gardens are rarely performed jointly: only in harvesting yams and fencing does the mean size of work group reach even 1.5 individuals. However, certain other subsistence activities do involve larger work groups. Of these, sago-making involves the largest mean number of people, since a sago-palm contains enough food to maintain several families for some weeks and it requires intensive labour to extract the starch before it spoils. Thus, those who decide to harvest a palm almost invariably call on others for assistance.[1] Spear-fishing is often undertaken by individuals alone, but groups of men or a number of households may fish together at a particular place. The largest fishing groups occur on the rare occasions (twice during the survey) when large nets are used. At such times people from several villages (Inonda, Mosou and Ijika) may collaborate to spread the nets (one from each village) across the river, to construct temporary dams of

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[1] See p.260. A A

[TEXT CONTINUED ON PAGE 157]

A, [See Category 476, p.260--Analyst]

226 branches and to drive the fish into the nets. On both occasions
476 during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

342 Construction of houses generally involves some collaboration in
461 erecting the timber frame and in preparing roofing sheets from sago-
476 palm leaves, but much of the construction is carried out by the householder alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

461 It is worthy of note that, except for fishing and sago-making,
178 all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was
[245] initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

166 Iremba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Iremba was absent for 85 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Habema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

[461] Iremba's observed activity patterns seem fairly representative of the behaviour of young
[464] unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of 461 few diseases or pests. In Sivepe, work groups in cash cropping are 184 no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

433 184 166 464 In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether <u>given the existing technology, socio-economic matrix and level of productivity</u> the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed osisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A.[See Category 574, p.26--Analyn]

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The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two [222] main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a single tree is distributed by the rightholder(s) particularly to [462] those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods [342] I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof- [824] sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

[1] See pp.235-44.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 11:15

Inconda: the type and volume of labour services transacted during each recording period
(hours)

	Period I (12 weeks)	Period II (6 weeks)	Period III (8 weeks)	Total (26 weeks)
Acquisition				
Clearing	4.0	12.5	19.8	36.3
Fencing	10.0	34.4	-	44.4
Planting	10.1	14.0	22.9	47.0
Weeding	3.0	4.2	2.2	9.4
Harvesting and collecting forest products	-	3.0	7.6	10.6
Sago-making	-	263.7	-	263.7
Hunting and butchering	35.4	2.0	7.3	44.7
Construction	17.3	72.1	3.4	92.8
Household	8.8	-	21.7	30.5
Sub-total: subsistence	88.6	405.9	84.9	579.4
Coffee cultivation	10.0	17.7	6.5	34.2
Cocoa cultivation	-	-	-	-
Marketing	0.2	6.0	1.2	7.4
Purchasing	-	-	4.2	4.2
Entrepreneurial, incl. storework	7.0	-	-	7.0
Sub-total: cash	17.2	23.7	11.9	52.8
Total	105.8	429.6	96.8	632.2
Disposal				
Clearing	12.0	0.5	4.0	16.5
Fencing	10.0	22.4	-	32.4
Planting	8.0	4.5	18.1	30.6
Weeding	3.0	10.2	-	13.2
Harvesting and collecting forest products	-	3.0	2.5	5.5
Sago-making	-	170.3	-	170.3
Hunting and butchering	61.4	2.0	1.3	64.7
Construction	17.3	19.7	3.4	40.4
Household	4.6	-	8.6	13.2
Sub-total: subsistence	116.3	232.6	37.9	386.8
Coffee cultivation	10.0	6.5	15.2	31.7
Cocoa cultivation	11.0	-	-	11.0
Marketing	0.2	-	-	0.2
Purchasing	-	3.3	5.4	8.7
Entrepreneurial, incl. storework	1.5	-	-	1.5
Sub-total: cash	22.7	9.8	20.6	53.1
Total	139.0	242.4	58.5	439.9

437 476 again reflecting assistance given by young people from outside the village. In addition to the two Sewa men, whose help was requested by the entrepreneur, a young married couple came from Kendata village to assist household 17. These were the children of the sister of the household head's wife, who is also from Kendata.

Assistance in hunting and butchering of game shows marked seasonality, falling almost entirely into period I. This reflects the concentration of feasting in the same period, when men will request the help of those noted for their skill in hunting to provide the necessary meat.

Assistance in household tasks such as collecting water and cooking is mostly given by visitors, particularly women, from outside the village (see Table 11:16). The widow, however, received considerable help from two villagers when she made about 20 tapa cloths. Household assistance accounts for only 5 per cent of the subsistence services.

437 Most cash sector services are given in establishing or tending commercial crops, particularly the pruning and weeding of coffee gardens, which accounts for 55 per cent of the time disposed and 39 per cent of the time acquired. One man received assistance from close kin (his mother and sister) in clearing and staking out a new coffee garden.[1] One-fifth of the labour given was in weeding cocoa on a settlement block across the Girua River, reflecting an obligation incurred by one householder who had married the settler's step-daughter. Assistance received by the trade store owner in operating his store and in marketing other produce accounts for most of the other services in the cash sector. Labour assistance in the cash sector accounts for only 12 per cent of all services given, but assistance in the main task, maintenance of coffee, [433] exceeds that given in many subsistence operations and equals the amount given in hunting services. Thus, although the cash sector remains in some ways (as in the circulation of cash itself) peripheral to the village economy, it is integrated to the extent that it provides a recognised channel for meeting obligations through labour services.[2] In some cases, the receipt of assistance requires a return gift of cash, such assistance being one of the few sources of cash income available for old people or for women. In other cases, as with the settler's son-in-law, assistance in the cash sector is a means of meeting a traditional obligation. In sum,

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[1] See p.246.

[584] [2] Crocombe and Hogbin (1963:81, footnote), referring to assistance given to the Girua block settler by his son-in-law, point out that traditionally a prospective groom would assist his father-in-law with house-building or garden clearance.

[TEXT CONTINUED ON PAGE 584]

437 operations in the cash sector are conducted, in part at least, according to traditional attitudes.

437 Table 11:16 gives details of labour assistance received from and
476 given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

438 The breakdown of the totals for the whole survey according to
462 sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1]
562 and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion, of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

TEXT CONTINUED ON PAGE 265

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

242 245 469 476 (614)

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

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(614)

The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8¼ hours, with a mean time on the two days of 6¼ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

(434)

The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [242] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 519 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

463 to be trading within their own village and twenty-six outside their
472 village.[1] In eighteen cases store location is not specified. The
366 only indication of success provided by the licence is the period of operation for each store. This index is not wholly reliable, because a store licence is sometimes renewed when the store is no longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 Labour. The Orokaiva commonly enlist the help of relatives to
472 establish and maintain cash crops. These relatives are rarely regarded as paid labourers, and are compensated with random gifts
476 of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual
[621] protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kusi clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kusi land, reportedly because of a shortage of Mumu land. The Kusi clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
●476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old C.C.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

423 had rights.[1] Conversion has caused a redistribution of land rights,
314 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the new tenure system. Interclan co-operation is seen in the leader
182 of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over Papua-New Guinea') should know of their experiment. When two
186 Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
179 Blocks were cleared by kin groups in accordance with custom. Two men mentioned that there had been an arrangement whereby if a
[689] person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
179 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.A

A [See Category 423--Analyst]

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services ren-602 dered, the villager obtains the assistance of his 464 relatives for heavy work such as the felling of big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society. [578]

632 The establishment of towns, unknown be-177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The
613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is
614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown
614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 5) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with them. These affinal kinsmen thus acquired
[428] cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.7-A]

He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepo, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] With regard to interpersonal relations, the evacuation set up
[571] a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepo two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepo, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers' consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepa and Inonda. At Sivepa, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wreata and each man took his own rice back home, giving a

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[27]

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 B started his store in 1961 with the relatively large capital
472 of $478, of which $300 was his own money, and the remainder his
452 younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had [474] been selling goods well below cost price. Competition from a [471] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

[426] Group III Trader I started his store with $200 which was lent him by his younger brother-in-law, who is a clerk with a commercial firm at Lae. The brother-in-law pays all store bills, and I had repaid him $104.

[451] J's trade store was managed by his elder brother, who could neither read nor write and did not keep any store books.

444 K started his store with $390, helped by his younger brother
474 who works in Port Moresby. K runs the store on a quasi co-operative basis, with forty-two shareholders belonging to his own and another clan. His brother contributed $200 to the initial cost, and the [499] value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

444 L began her store with $206; when she is away, it is managed by her father.

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(11) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) described an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 5.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivapo is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

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One of the stated aims behind Sivapo's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 110]

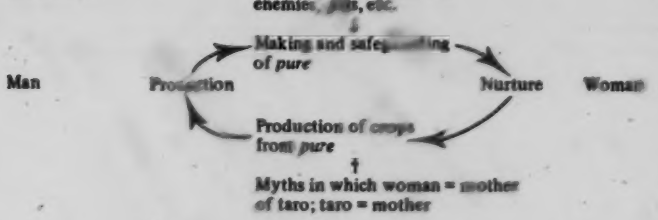
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter. 423 241

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kouri*) of the seed. [773] [462]

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows: 241 [462] [482] [562] [431] 562 241 773

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if 423 593 [578]

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(11) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 13 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

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[TEXT CONTINUED ON PAGE 110]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

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[Housewife carrying garden produce and firewood back to her village, a distance of up to four miles. Her load, excluding baby, is about 100 pounds.]

INTRODUCTION

433 THE traditional economy of New Guinea villages was radically different from our own. Whilst our economy is based upon the production of surplus goods which can be sold for profit, thus providing capital which in turn may be invested to produce greater profits, the key note of the New Guinea economy was 433 self-sufficiency. Traditionally, the people of 24 New Guinea were subsistence cultivators plant- [226] ing their food crops in small clearings in the [224] forests and supplementing this food supply by [222] fishing, by hunting the animals which live in the forests and on the grasslands and by gather- [412] ing the edible produce of wild vegetation, [392] notably sago. Only the simplest implements were available: stone axes with which trees could be laboriously felled or ring-barked; fire for burning-off the mass of felled timber, vines, and leaves; and sharpened sticks with which holes were made for planting seeds and cuttings. In only a few limited areas, notably the central highlands of the main island, was there any attempt at digging or cultivating the soil prior to planting; in most areas cuttings or seeds were planted in holes made directly in the cleared, ash-covered ground. [128] The burned clearing thus made and used for the growing of food crops is referred to in this book as a swidden.

433 Such an economy, in which there was no 24 concept of saving and no profit motive, tended 17 to be resistant to change; innovation was un- [412] necessary. But with the coming of white men possessing a superior technology, an important change occurred; steel axes, knives, and spades

P.I-A

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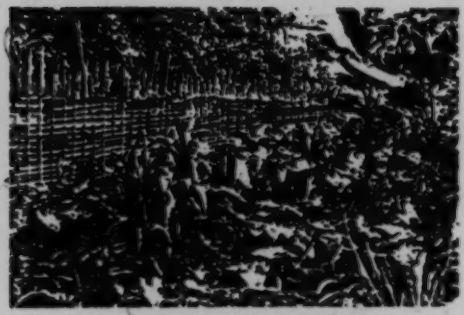

Fig. 6. A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter [224] the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire [825] is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

241 c) *Division of labour.* Most garden work is performed by both men and women, but cut- 462 ting large trees is men's work only, and harvesting is performed by women only. Incidentally, [482] the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production 222 is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

[P.9-B]

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19). Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both men and women are repositories of capacities and resources specific to themselves; the relationship between men and woman is the giving of exchange (wine ari) of the contributions of each. Men views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

461 regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.
**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

527 574 484 A tendency for men to regard the season as a time for renewing social contacts became more apparent in the week of the New Year. Although New Year's day was not specifically observed, the men who were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between villages in the area appears to be usual at this time of the year. [438] Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in [484] two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

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One of the stated aims behind Sivepa's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 109]

484 produce could be sold directly to buyers at the village.[1] Nothing
[491] in Table 6:11 suggests that this move is related to the changing
[361] location of gardening activities since the percentage time spent on travelling in connection with clearing activities is actually less than that in connection with subsistence gardening.

Table 6:11

Sivara: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

[361] [824] [825]

[1] Other reasons given for the move included, firstly, that the new village would be an amalgamation of four existing ones and this enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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village to food gardens and to cash crops. An individual had only a small amount of land on each plot, preventing large-scale planting in one area. Since conversion each man's scattered holdings have been brought together into one large easily accessible block. (Horawets 1967:18)

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In Sivepa, travelling to and from the point of work accounts for 18.2 per cent of activity time.[1] Household tasks, being mostly sedentary, involve little travelling. These apart, the lowest proportion of time consumed in travelling is for cash cropping - only 8.3 per cent. Since coffee and rubber are permanent tree crops every effort is made to establish such holdings close to the village, and extensive planting may result in the stabilisation of settlement. However, because the cultivation system associated with subsistence crops is entirely different from that associated with the cash crops, any periodic need to relocate the village in relation to areas currently being exploited for food gardens can easily negate initial economies relating to the journey to work. Rimoldi (1966:41) states:

> In about 30 years preceding the establishment of their present village the groups now represented in Sivepa had between them been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units.

Whatever the real reasons for such moves, the effect on cash crop holdings is clear. The proposed move of Sivepa to a new site will double, at least, the time spent in travelling to these gardens.

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Even other subsistence activities, which are essentially village based, require 10.1 per cent of total time in travelling to and gathering the raw materials. However, miscellaneous activities apart, social obligations involve the highest proportion of time being spent in travelling - 36.7 per cent. The wide scattering of clans into a number of branches and the pattern of patrivirilocal residence largely account for the distances travelled in connection with social activities, although the scale of movement has undoubtedly increased following contact through kinsmen employed by the external agencies active in the District and others with settlement blocks at

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[1] While the corrected figure of 15 per cent shown in Table 6:11 reflects the actual time spent travelling during the course of the survey, 18.2 per cent is a more normal figure on account of the journeys made in the researcher's vehicle during the survey. The high figure of 40.7 per cent for other activities largely reflects missions undertaken specifically at the researcher's request, but in terms of actual time these are of little significance.

484 Sengara. Finally, movement directly related to the external agencies and sickness is proportionately greater than for all other activities apart from the two exceptions noted. In general, travelling times appear to reflect a significant expansion in the village <u>ecumene</u> following contact. Further, in those activities specifically related to this expansion there is a lower level of efficiency in so far as travelling is concerned, since there has been no parallel development in the modes of travel.

461 Detailed time and motion studies of a limited number of activities were conducted in order to acquire a better understanding of the utilisation of activity time in areas other than travelling and of the level of productivity within the framework of the existing economic system and technology. A total of 28 man-instances were surveyed, the activities comprising clearing, several subsistence gardening tasks, sago-making, house construction and coffee harvesting. The results are presented in Table 6:12. The main feature they demonstrate is that the various productive tasks (Main, Ancillary and Other) carried out within the duration of a single activity amount to only 49.3 per cent of the total time devoted to that activity; and 27.4 per cent of the total time is accounted for by resting and eating meals. The time spent in resting increases with the intensity of effort and exceeds 30 per cent in sago-making, productive effort being proportionately reduced. However, in this case the increased leisure time is compensated for by a large work group so that it is possible to maintain a high rate of sago production.

[462] While acknowledging the small number of observations, tentative patterns may be discerned within the sample according to sex, age and cash cropping status. Men concentrate more on the main task than women, as the latter also are responsible for preparing any food during the course of the work, washing the children and doing such minor tasks as foraging for greens; the 25 to 34 years age group allocates its time in a more productive manner than any of the others, spending 56.3 per cent on the main task and only 16.1 per cent on resting and meals; while cash croppers appear to use their activity time more productively than non-cash croppers. The cash croppers spend 64.9 per cent of activity time on the various productive tasks and only 17 per cent in leisure compared with 36.3 per cent and 36 per cent respectively for non-cash croppers. This clear distinction is in part a function of the frequency of sago-making by non-cash croppers, but if this activity is excluded the figures for cash croppers become 64.2 per cent and 15.5 per cent respectively, and for non-cash croppers 47.3 per cent and 23.9 per cent respectively; thus the distinction, if somewhat modified, persists. Furthermore, it must be recognised that some cash croppers at least, with their higher cash incomes, have less need to make sago during the dry season since they can supplement their diet with storebought foods.

Chapter 7

Activity patterns: Inonda

Introduction

484 [12C] Records were kept of the daily activities of the 19 permanent adult residents of Inonda and of 2 young people (one aged 15 and the other 16) who spent periods of a few weeks in the village helping kinsmen. These 21 people were regarded as residents for a total of 3,230 man-days. Temporary absences of more than 24 hours duration amounted to 560 man-days and so the number of man-days considered below amounts to 2,670. Table 7:1 shows the number of man-days absent in each recording period and in total.

464 164 The number of effective working days in the village is further reduced by sickness. When suffering from major illnesses such as malaria and influenza, people generally stay in bed at home or at the aid post. Comparatively minor ailments such as skin infections, tropical ulcers and cuts are usually dealt with by brief visits to the aid post, mostly early in the morning before work. Such visits occupied almost 600 man-hours over the survey.

Table 7:2 shows the incidence of sickness when people were inactive in the village. Periods of sickness spent at the aid post or hospital are included under 'Absences' in Table 7:1.

164 484 Figure 7:1 illustrates the weekly incidence of man-days occupied by sickness while in the village and by absence. There are wide fluctuations in the incidence of both, but particularly the latter, which ranges from zero to 46 man-days. The peaks of absences occur mainly with feasts in distant villages and when several villagers are sick at the same time and stay at the aid post or with relatives. Sickness tends to be most common during the wet season (periods I and III).

During the 2,670 man-days resident in the village, the activities carried out by the sample occupied 16,620 hours or 6.2 hours per person per day.

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Table 7:1

Inonda: days absent from village, by cause

		Garden work	Fishing	Sick and care of sick	External agencies	Visits	Other social	Other	Total days absent	Total days present
Period I										
	Days	20	26	13	1	139	52	9	260	1,252
	Per cent	8	10	5	-	54	20	3	100	
Period II										
	Days	-	-	38	43	60	4	-	145	593
	Per cent	-	-	26	30	41	3	-	100	
Period III										
	Days	-	16	52	40	29	14	4	155	825
	Per cent	-	10	34	26	19	8	3	100	
Total										
	Days	20	42	103	84	228	70	13	560	2,670
	Per cent	4	8	18	15	41	12	2	100	
Percentage of all days present and absent		1	1	3	3	7	2	-	17	83

S: Waddell & Krinks E-4,5 (1964-1965) 1966 OJ23 Orokaiva OJ23

partially counteracts the effect of the reduced travelling time. However, all of the most distant gardens were fully harvested by the time the village move was completed.

Other subsistence activities also show a significantly lower proportion of time spent in travelling from the new site compared with the old: this is because almost all construction, including the copra-drier as well as houses, took place at the new village. Some people reduced their travelling times at an early stage by erecting temporary shelters on the new site to live in while building their homes. By the time of period III, the other subsistence activities were restricted to those pursued in the village, such as making mats or string bags. The reduced time spent walking from the new site to work on cash crops results from a concentration on [illegible]s production within or adjacent to the new village at the expense of work in the more distant coffee gardens. The established coffee gardens are about twenty minutes' walk from the old site but forty minutes from the new village and the distance involved resulted in a decision to establish new coffee gardens nearer the new village. As described,[1] the first choice was land about twenty-five minutes' walk away, but eventually all but two men decided to utilise the food gardens only five minutes from the village. The other two planted coffee near the Sambogo river where there is plentiful water for pulping and washing the cherries.

The apparent reduction in travelling times for household chores is illusory. The observers were able to cover activities such as cooking far more completely at the new site; the distance to the nearest water supply was not diminished by the move. The distance to the aid post where the infant welfare clinic is held was, however, considerably reduced.

Three categories of activity show an increase in time spent travelling. This reflects more frequent journeys after the move to places further afield, such as Popondetta, Saiho and Kendata, but this increased frequency was not a function of the move itself. During period I, when most people were still resident in the old village, most of the social occasions took place there or in nearby villages whereas, later in the year, feasts were attended in more distant places.

The performance of individual tasks

On a number of occasions, detailed observations were made of the time involved in carrying out various tasks and the results are shown in Table 7:14. Each activity has been divided into different phases: travelling, resting and eating, performance of the main task,

[1] See p.59.

[TEXT CONTINUED ON PAGE 157]

Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mamburada, one at Gatara, while eight lived in Beporo and one further away at Goube. However, it was likely that the Beporo and Goube people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

(i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

(iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

(continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

Unfortunately for the co-operatives, the mission organisers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

Early in 1948 the foremen in charge at Ononda was sent by the mission authorities to Boroo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit relatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

492 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogerem who was not himself an Orokaiva man. He was born about 1910 in Beko village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kwamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo [443] after the invasion was repulsed, he did not remain long before returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [811] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

Background experience

463 472 871 Education. Although the most successful group of entrepreneurs had all had considerable education (more than three times the average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 472 484 Travel. There may be a positive correlation between travel experience and trading success. All the entrepreneurs had travelled beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 472 464 Paid work. The number of years spent in paid employment correlates negatively with the entrepreneurial success of the sample, as under:

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at
a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built
houses on their own blocks on either side of the access road. In
addition, they have built a 'meeting house' in which passers-by
can sit and chat, and a latrine. One is the son of the other's
mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
[484] was a rational decision. An additional incen-
[443] tive was the development of the weekly market
at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[657] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000
[162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepa, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepa, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepa men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepa and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kumale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16)[A] shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.
114 The question is an interesting one, but Sivepa does not provide a clinching counter-instance. Mr. Waddell's sample was taken entirely from the Jegase and Timunu clans, while he did not collect data on travelling time from the Seho clan. Now it is the latter clan [488] which owns most of the land around New Sivepa, so that their travelling [923] time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timunu) now have gardens very close to New Sivepa. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepa in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepa. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

I have not yet referred to the deepest acculturative influence 657 that was absorbed before the time of the eruption, namely the abolition 177 of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [984] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

Developments since 1951 provided increasing opportunities for [731] gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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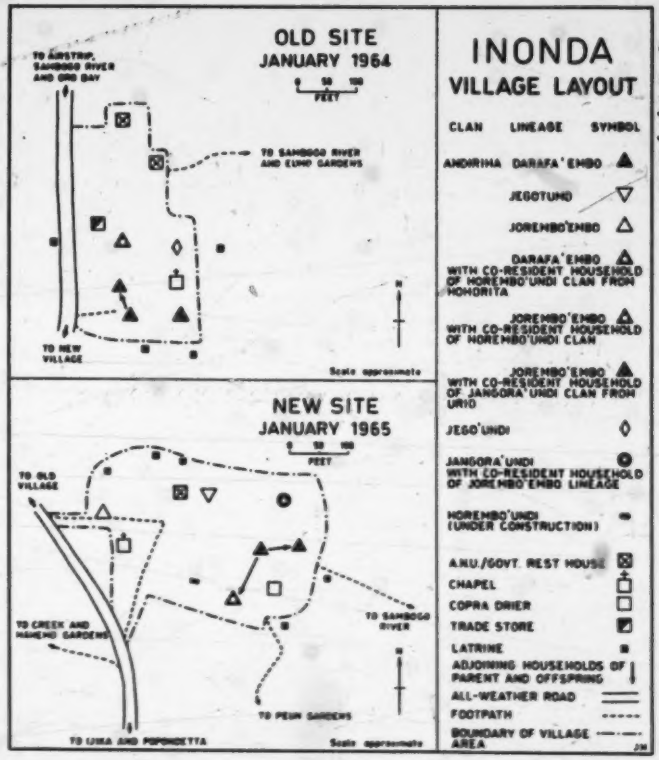

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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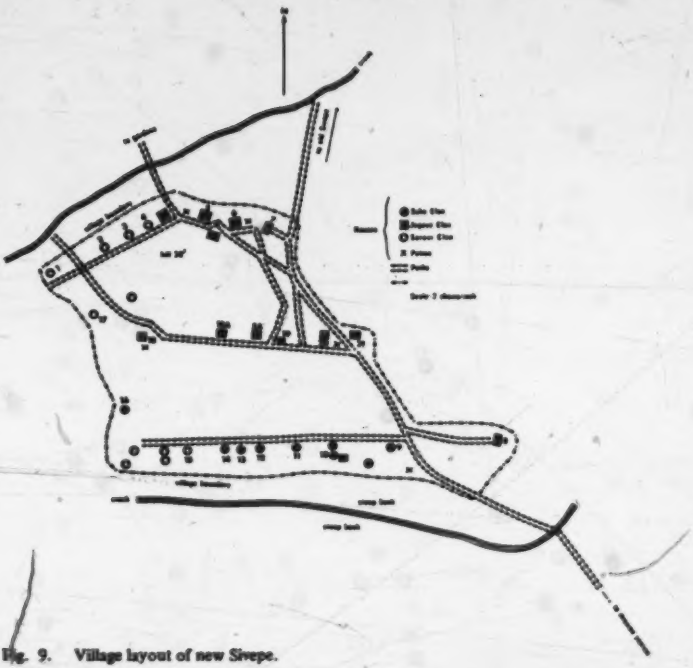

Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

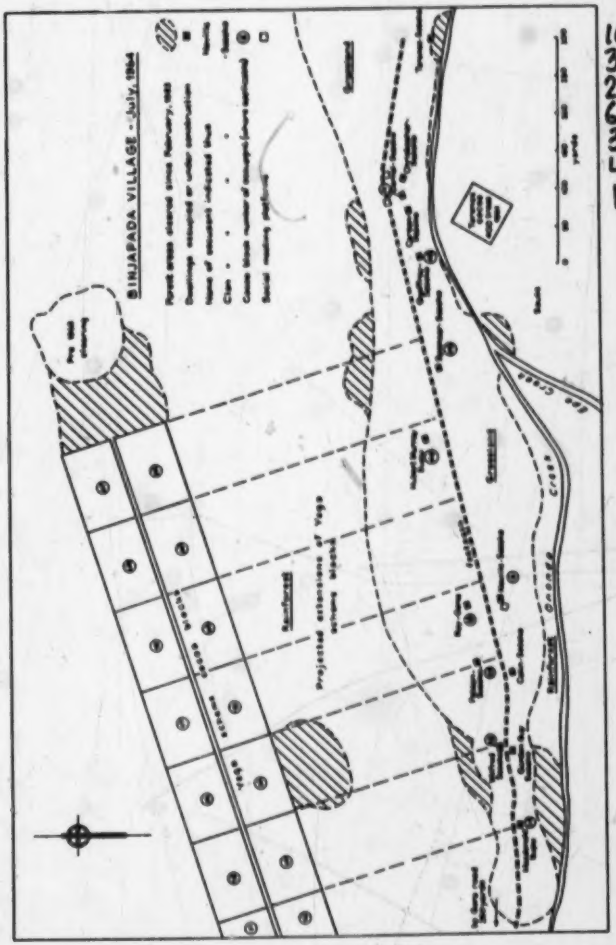

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Figure 6

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [247] [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 413 119 602 (continued) planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

13: Hogbin E-5 (1962) 1966 OJ23 Orokaiva OJ23
Inonda

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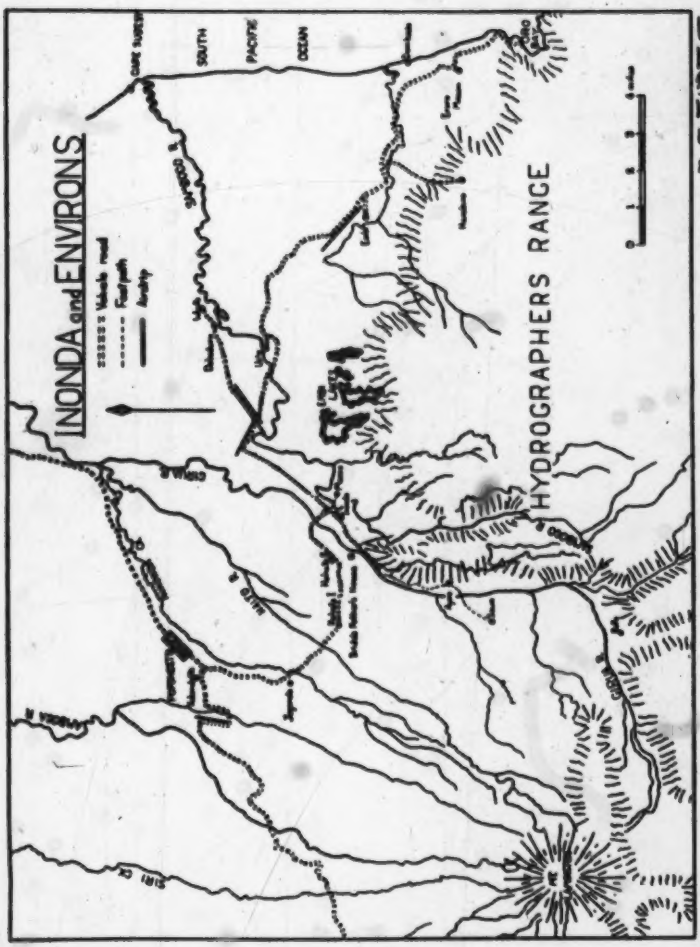

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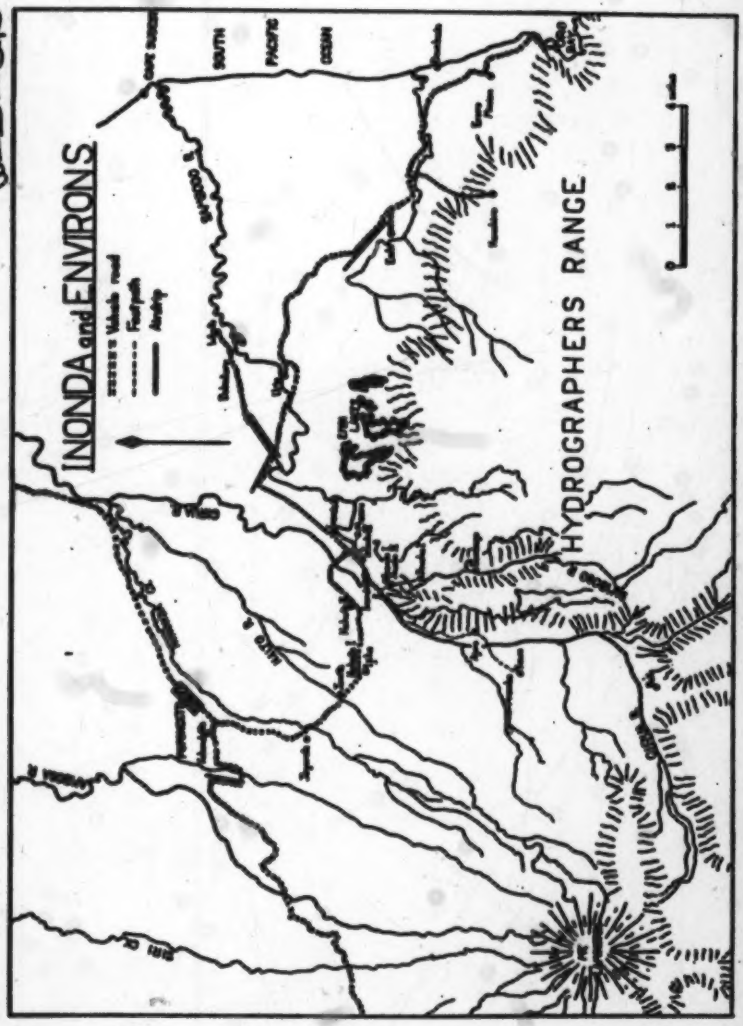
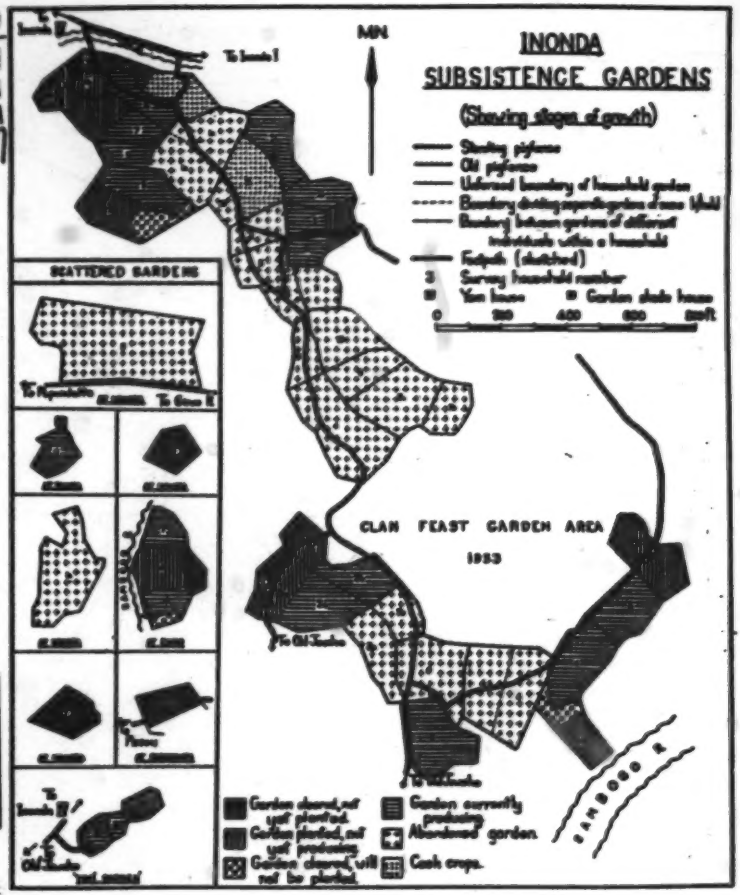
14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda




INONDA
SUBSISTENCE GARDENS
(Showing stages of growth)
MN
SCATTERED GARDENS
CLAN FEAST GARDEN AREA
1963
SAMBOGO R.

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23
Inonda

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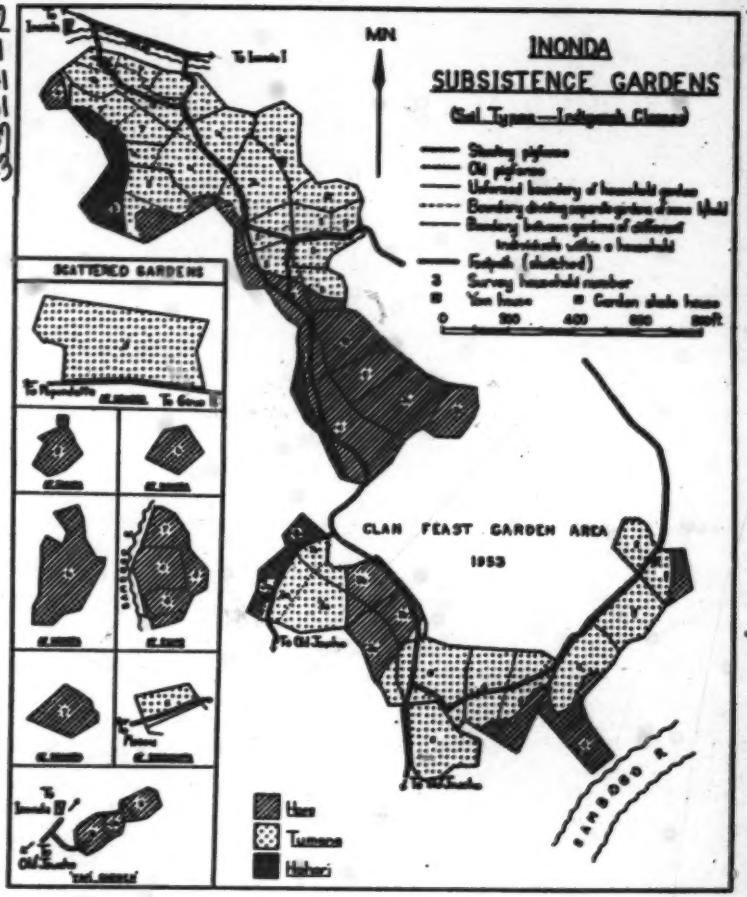

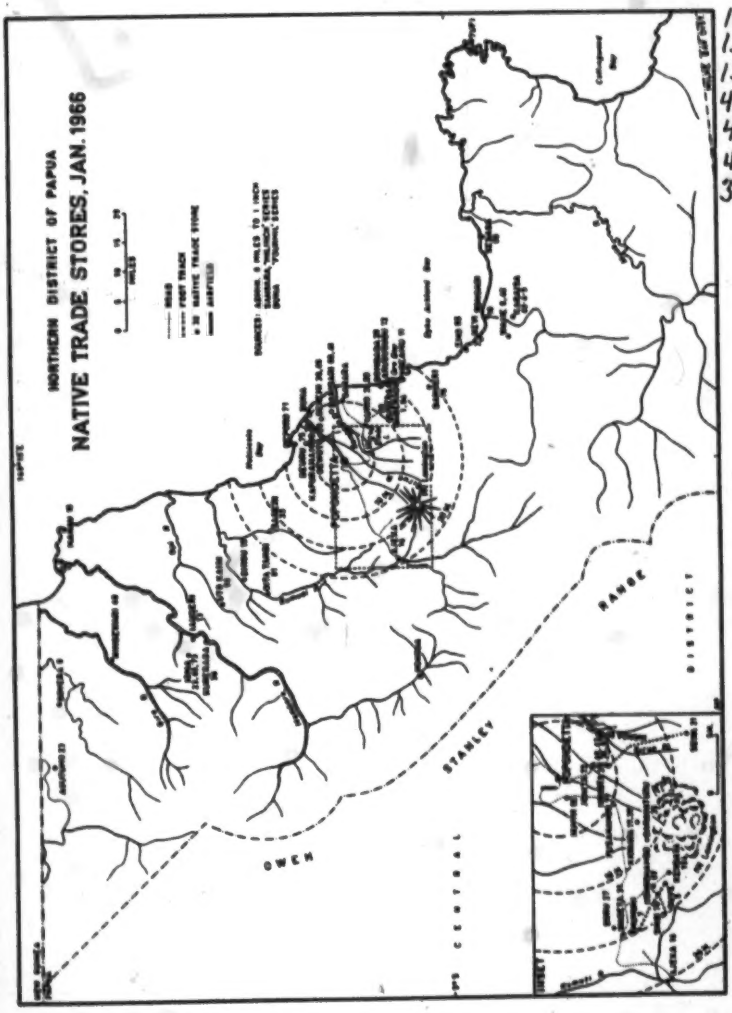

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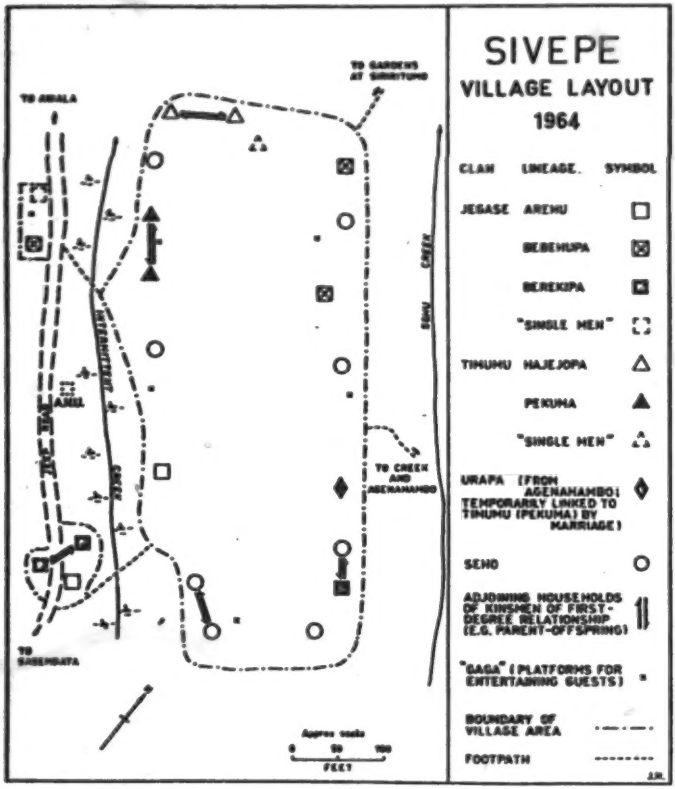
Map V



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Source: Waddell & Krinks 1968: 38

[End Map 5]

Map VI
Plan of New Sivepe

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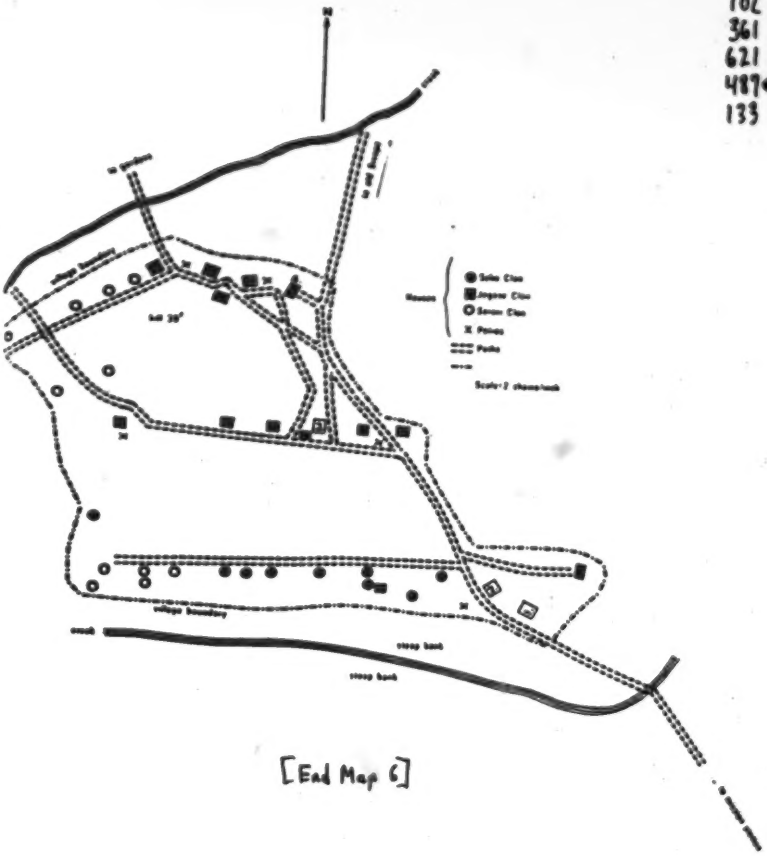
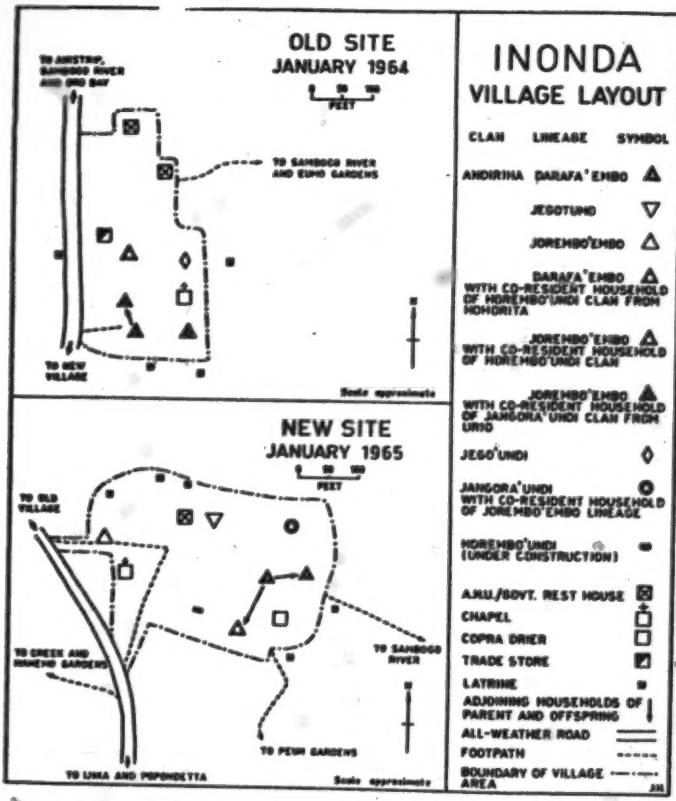


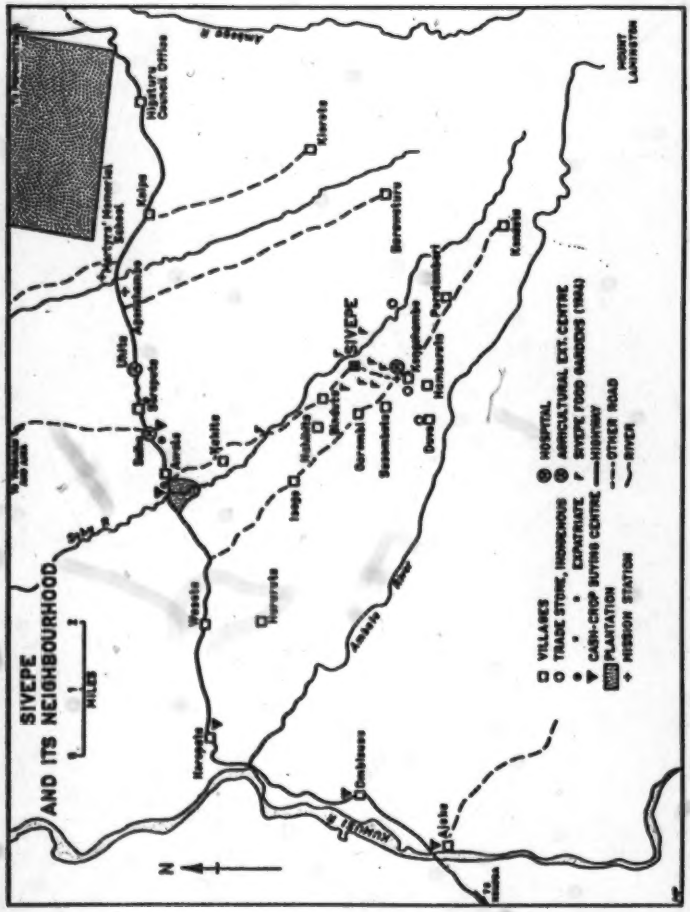
[Ed Map 6]

Maps VII and VIII



Source: Waddell & Krinks 1968: 54

[End Map 7]



Map II

Source: Waddell & Krinks 1968: 34

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[End Map 8]

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654] [435]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite different. The only outlet for fresh fruits and vegetables is at the Popondetta market which is held every Saturday. Market prices are low (by comparison with those at Port Moresby or other larger markets) and most commodities are oversupplied. When produce is taken to market it is not uncommon to have to bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the demand for it could be increased. There is usually a keen demand for fresh fish, pork and poultry, and the market could absorb much more than is at present supplied.(2)

Some implications for policy

The surplus of underemployed labour among those villagers who do not work for wages (and local wage labour will soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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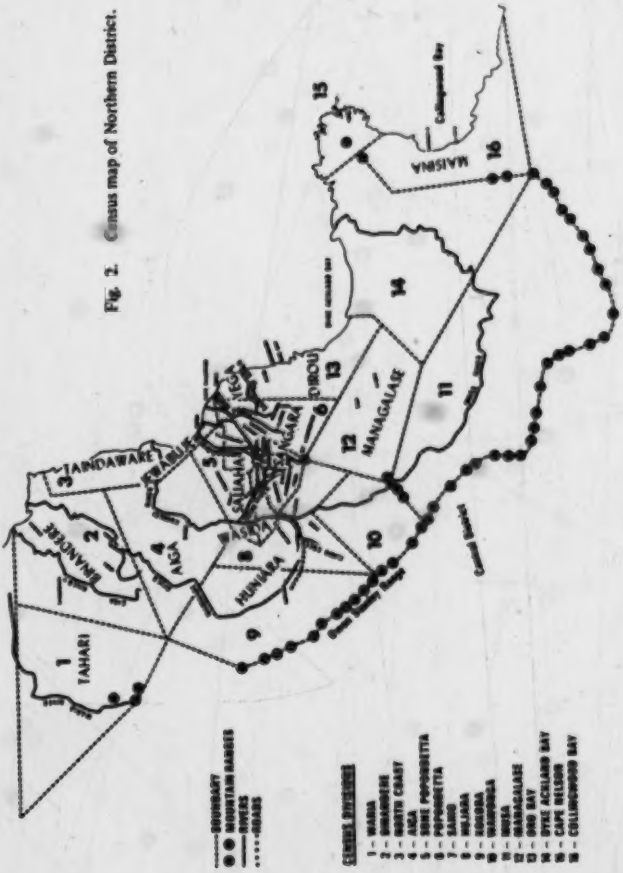

Fig. 2. Census map of Northern District.

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/8 ___

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ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT
(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages.

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The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12]

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Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
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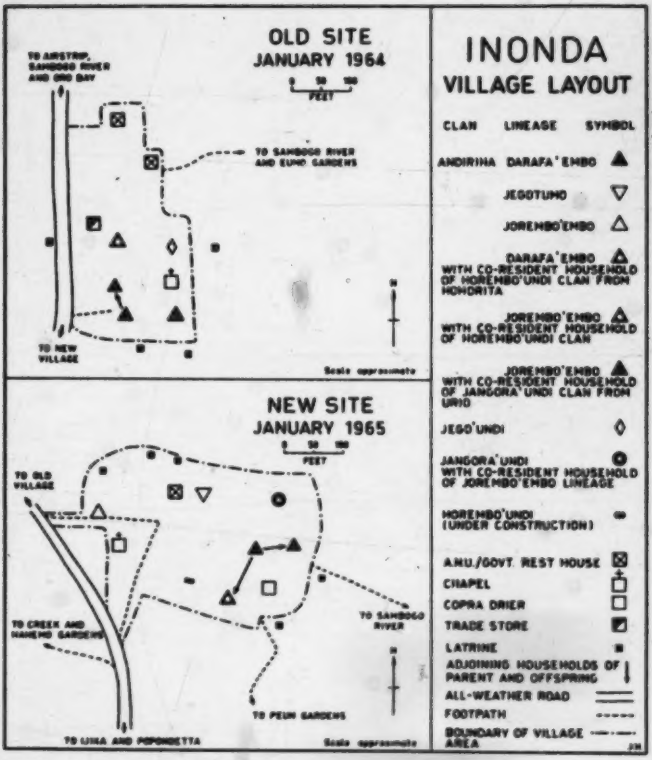

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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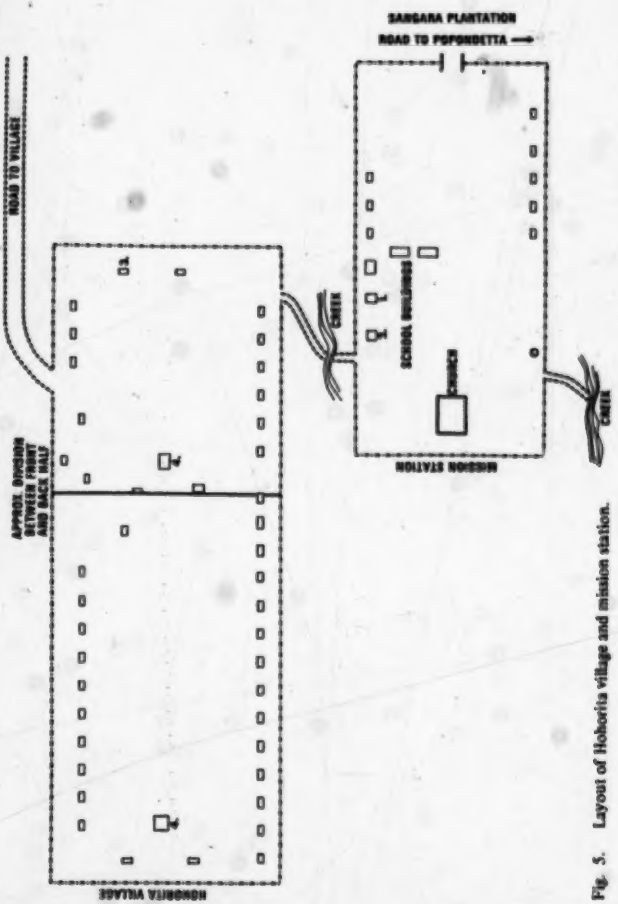

Fig. 5. Layout of Hohorita village and mission station.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and
105 Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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Fig. 6. Village layout of old Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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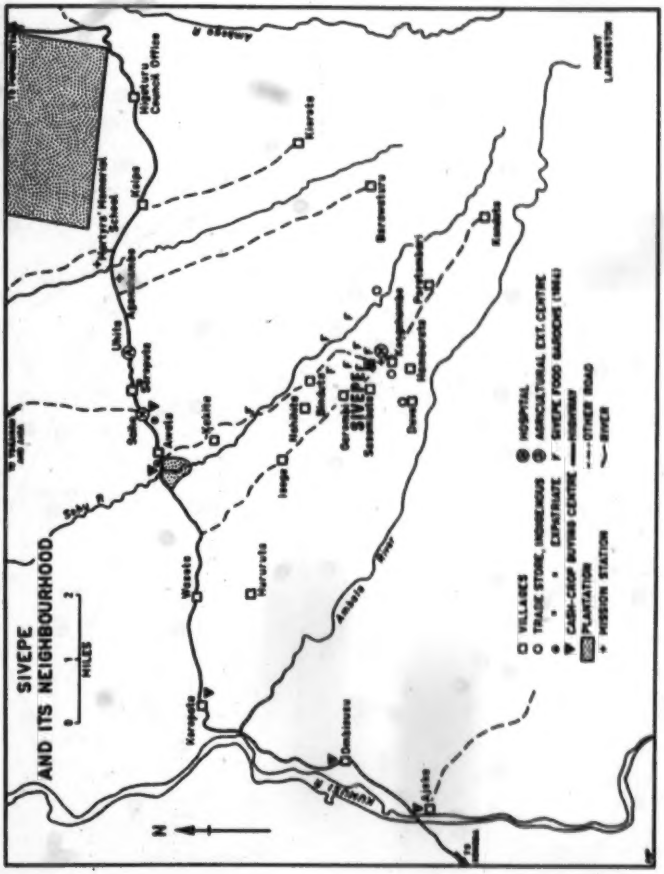

Fig. 10. Sivepe and its neighbourhood.

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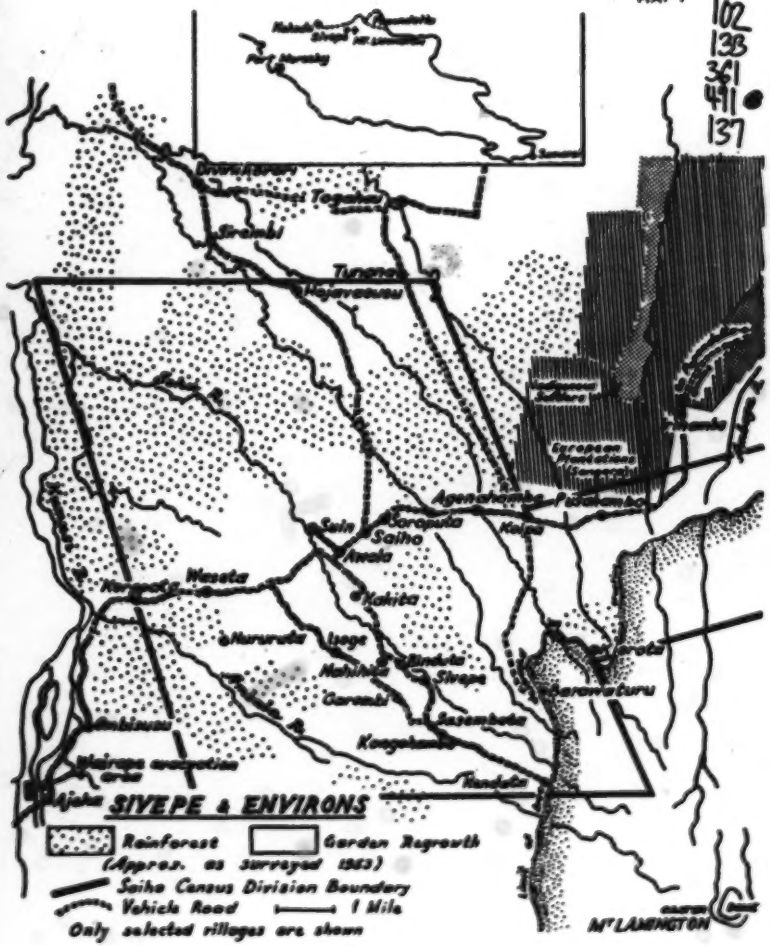
MAP 1



C21 obscure any important differences in structure and our historical
36 data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepe now has a population of 120 and is linked with Binduta, several hundred yards away, and with Hahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

131 Sivepe is situated on the western bank of the Sohu River, a
491 tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepe on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepe it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797 There were very few facilities for formal education in this
871 tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951.:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepe, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepe are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepe children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

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7: Rimoldi et al. E,1-5 (1962-1963) 1966 QJ23 Orokaiva QJ23 Mountain Orokaiva Sivepe

SCHEMA OF MAJOR LOCAL MIGRATIONS 1900-1950*

● Extant Village ○ Village now abandoned

⊠ Original Centre of Dispersal of Jegasa

Double lines on arrow indicating a movement means that village was thereby abandoned
Movements with same date and destination were directed by administration, as was Berekipa move in 1948

*Excluding wartime movements

Relative positions of villages are distorted for the sake of clarity. (See Map 2.) Most present dates have a margin of error of at least 5 years: Figures are given only to indicate sequences. Dates most in doubt are marked ?

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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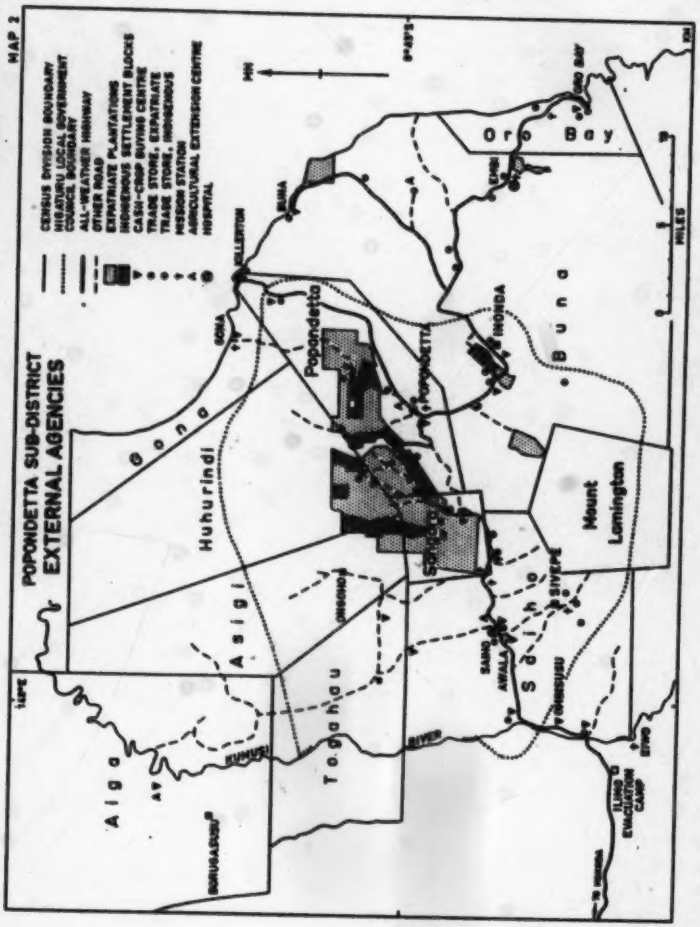

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

177 (a) Initial contact

The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

794 177 178 [491 [438 By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

438 are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since
435 their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and
[434] not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

464 (iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepo and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations, but most planters prefer to employ workers from outside the Orokaiva
[461] area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay
[465] with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepo visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

[447] Anglican mission stations frequently employ school-leavers as
[465] 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

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[1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepo.

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MAP 3

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is
137 characterised by fertile loam topsoils and a close-textured drainage system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-
311 use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

361 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

491 Also in mid-1964, several villages voluntarily commenced the
[499] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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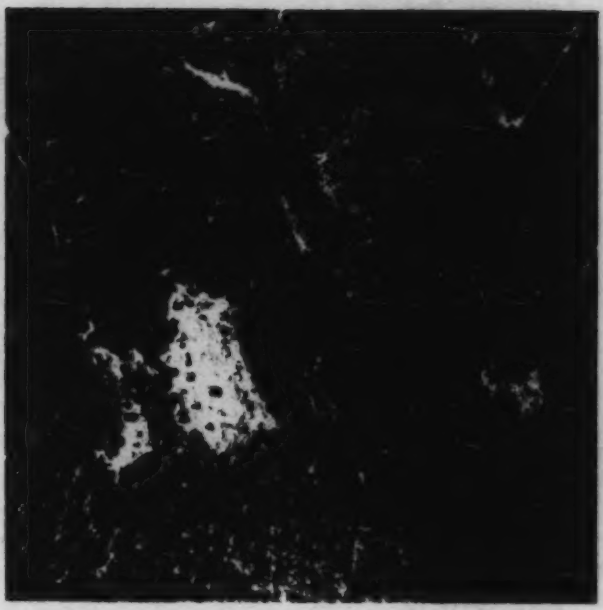

Plate 1. Sivepe - a 'line' village located in a forest clearing adjacent to the Sohu river and a minor vehicular road linking Sasembata and Awala. (Vertical photograph, scale 1:2,200.)

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCCS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

MAP 4

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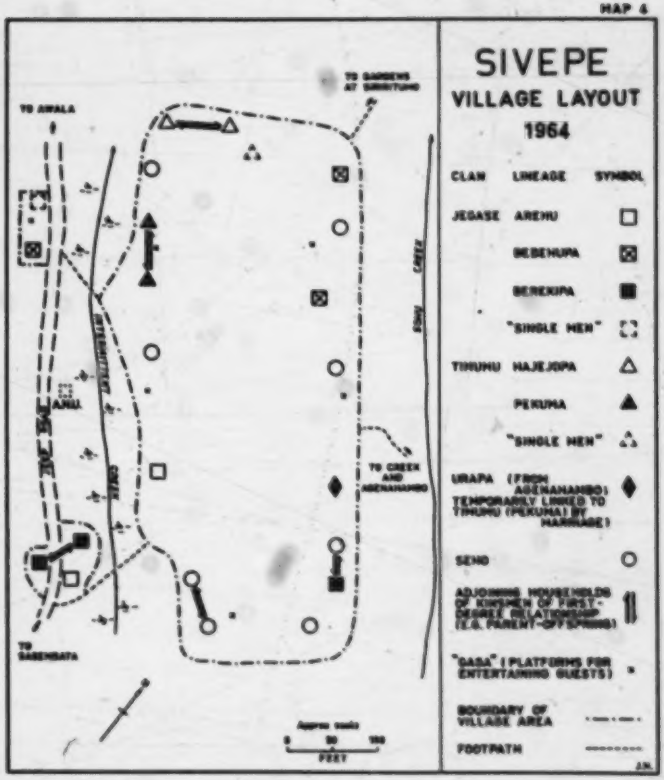

81 Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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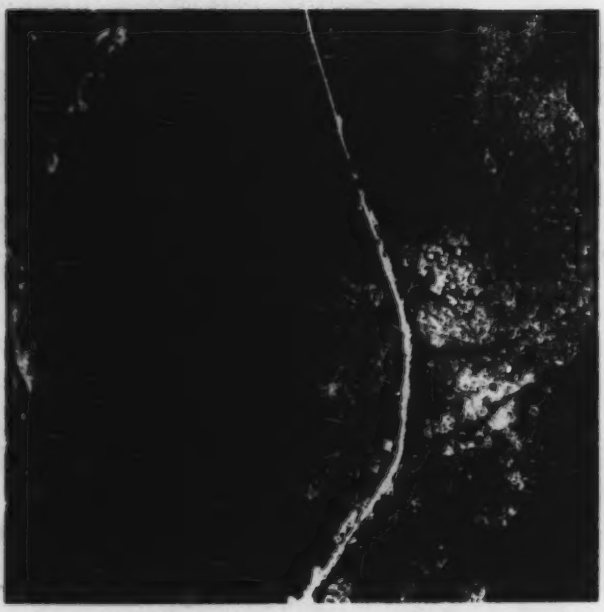

Plate 2. Inonda - the new village situated close to the grassland/forest boundary. The main Popondetta-Oro Bay road runs between the village and the Girua river.
(Vertical photograph, scale 1:4,200.)

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Huhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 368 131 The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two of them expatriate-owned, and a new Administration school. This latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

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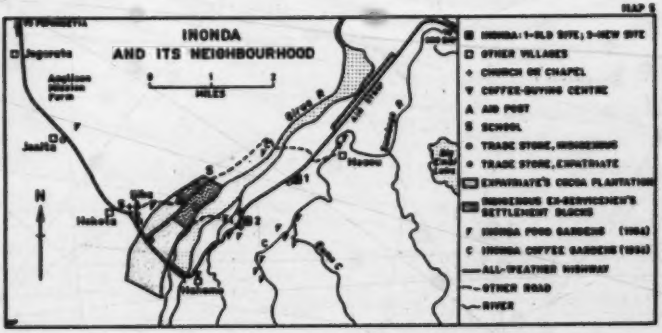
MAP 5



8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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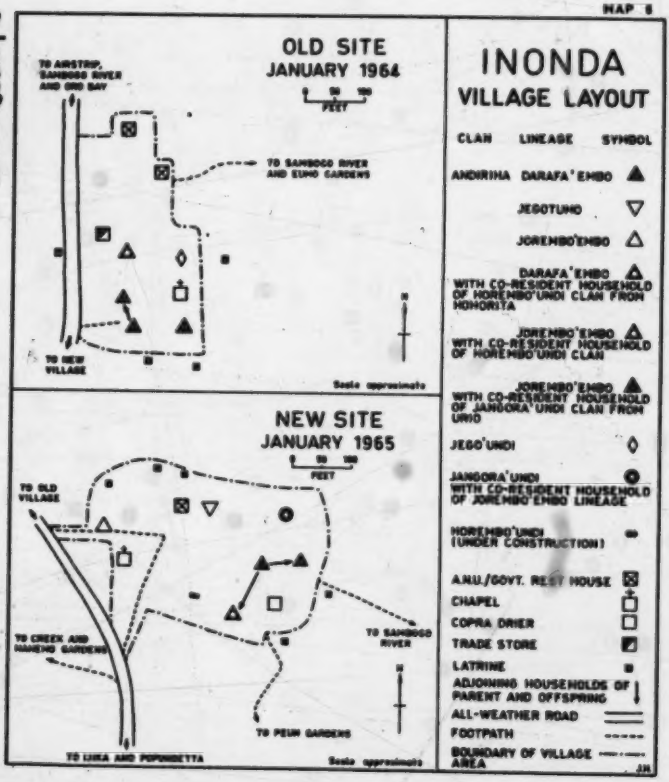
MAP 8



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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 3.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivepa is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

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One of the stated aims behind Sivepa's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 110]

484 produce could be sold directly to buyers at the village.[1] Nothing
491 in Table 6:11 suggests that this move is related to the changing
361 location of gardening activities since the percentage time spent on travelling in connection with clearing activities is actually less than that in connection with subsistence gardening.

Table 6:11

Sivepa: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

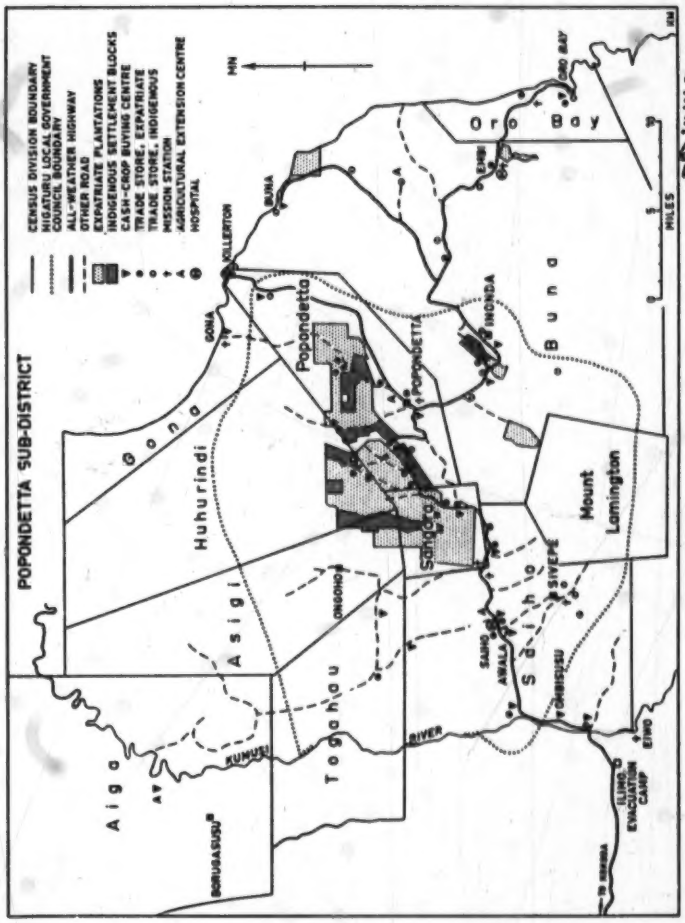
* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

361 [1] Other reasons given for the move included, firstly, that the new
824 village would be an amalgamation of four existing ones and this
825 enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

9: Kearney P-5 (1963) 1966 OJ23 Orokaiva OJ23



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[p.44]

Genesis of the Yega Scheme

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The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

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On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was re-opened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bovori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

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The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

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Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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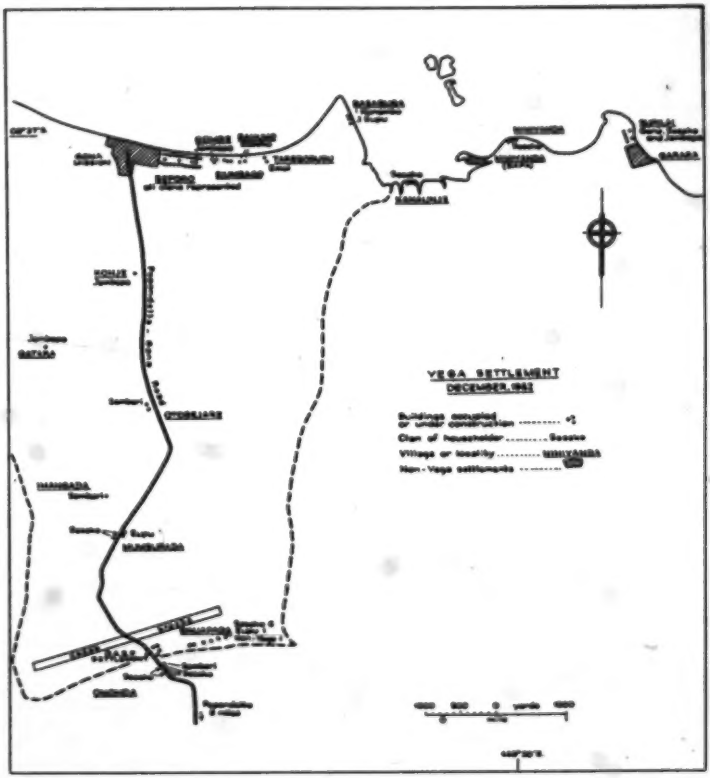
[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 302, p.45--Analyst]

10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

Figure 4



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10: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega
Ononda

Figure 5

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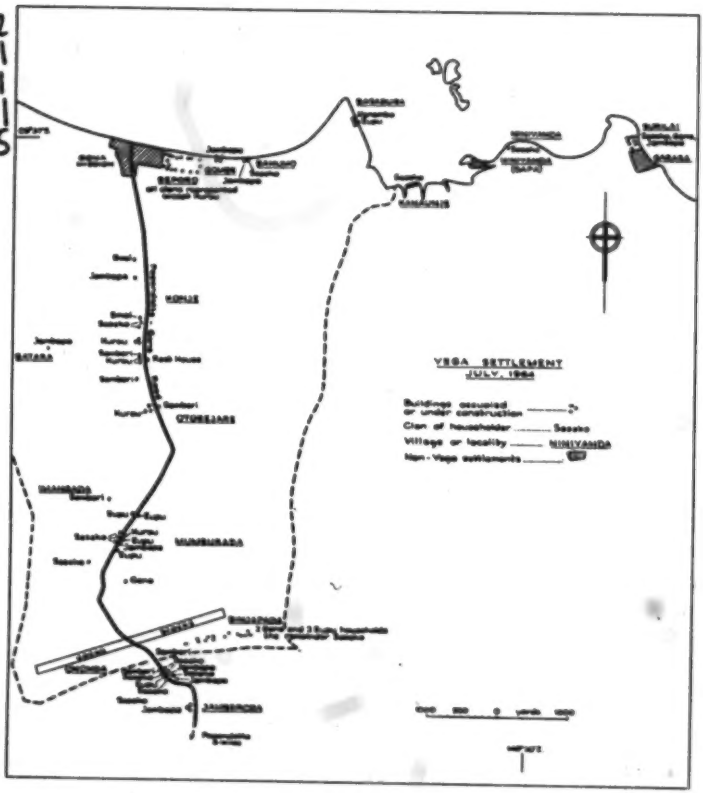

Figure 7

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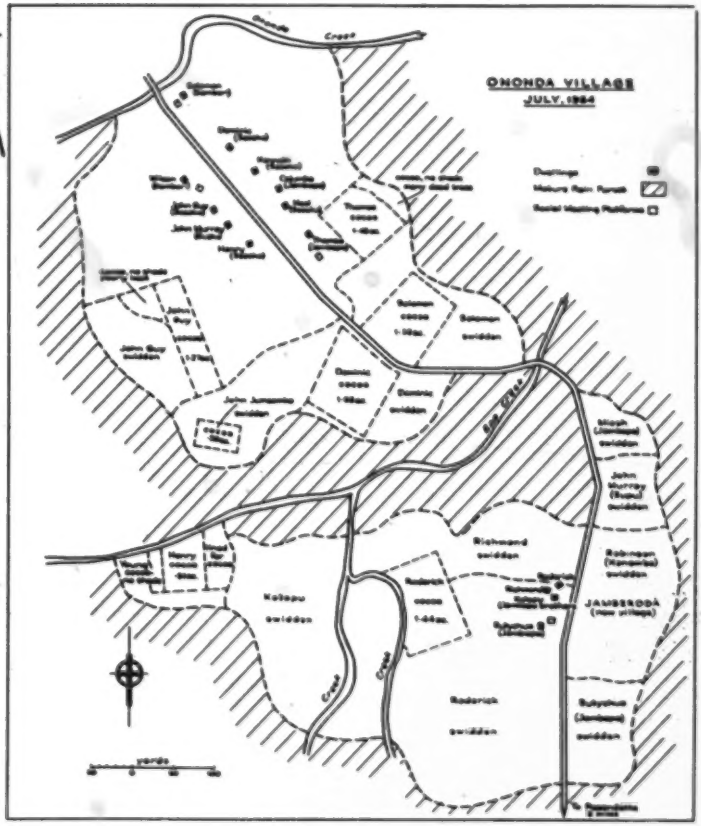

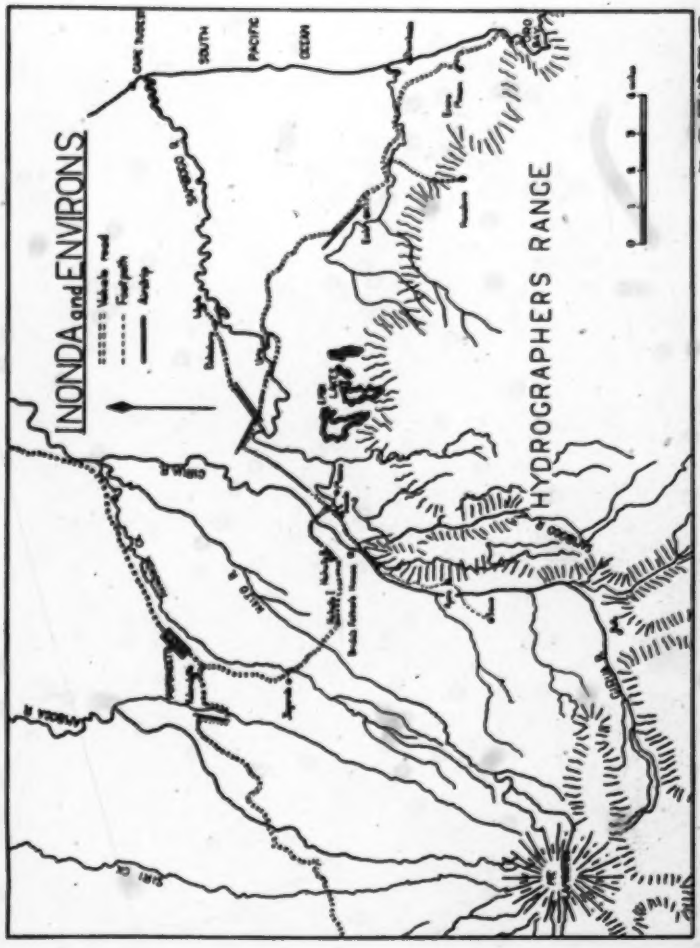

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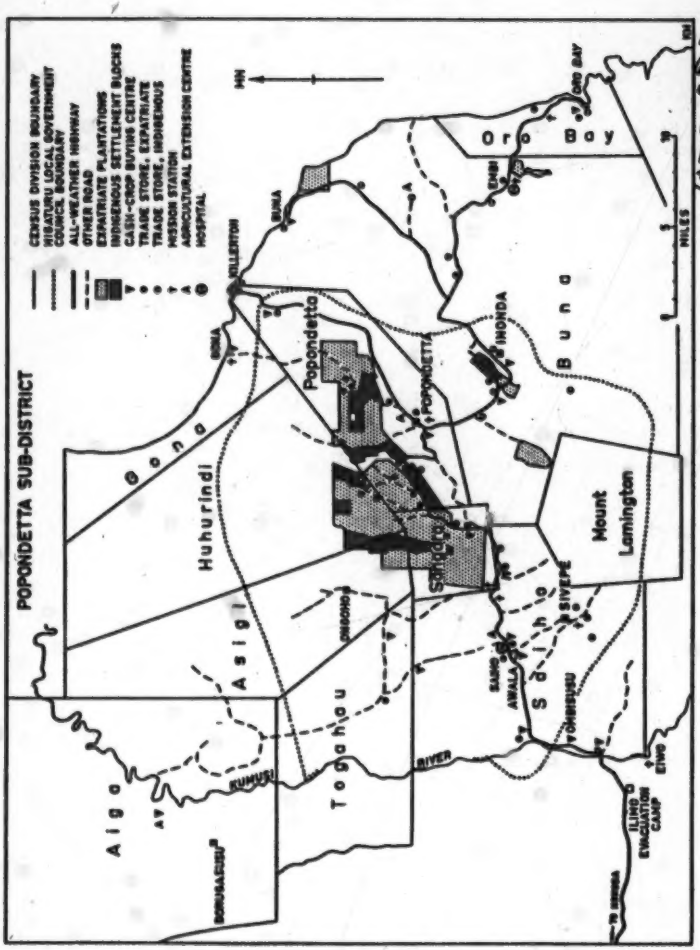
11: Dakeyne K-5 (1962-1964) 1966 OJ23 Orokaiva OJ23
Yega



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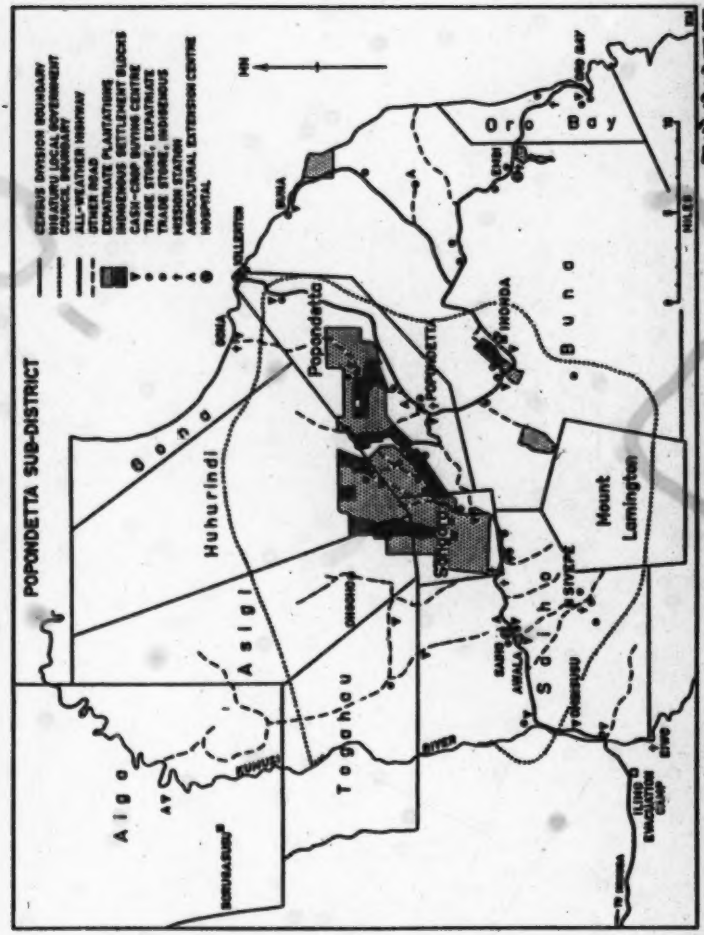
[p.44]

12: Crocombe B-5 (1962) 1966 QJ23 Orokaiva QJ23
Inonda



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[p.iv]

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda

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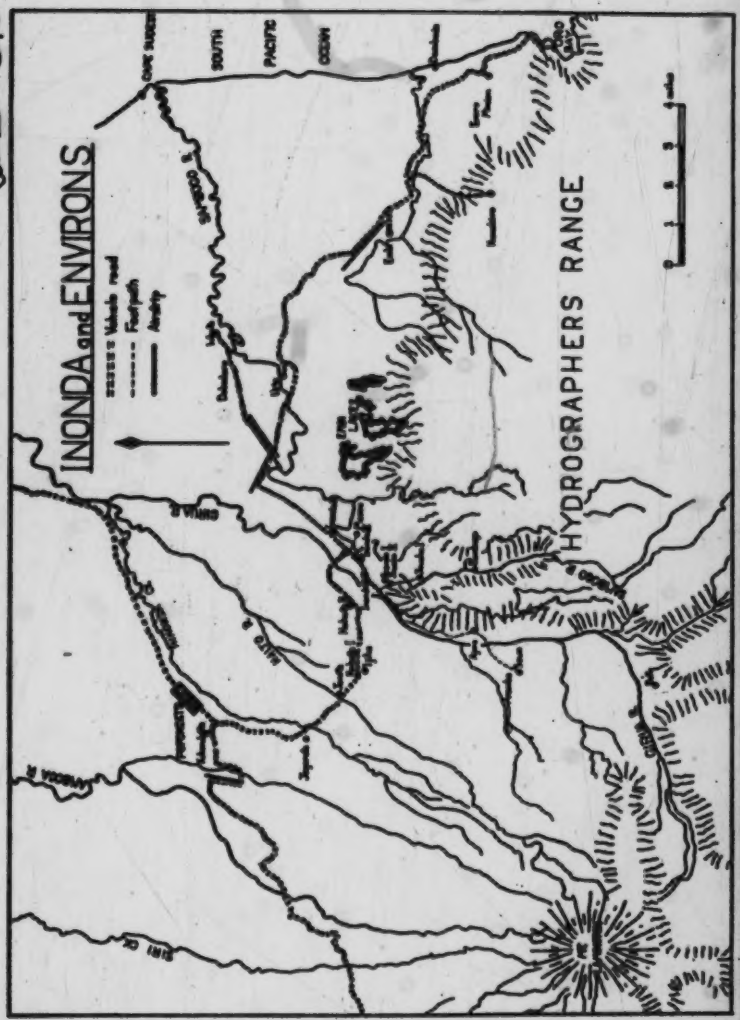
INONDA and ENVIRONS
Vehicle road
Footpath
Jeepway
HYDROGRAPHERS RANGE
SOUTH
PACIFIC
OCEAN
CAPE SUDEST
Inonda
Ivivisa
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14: Crocombe & Hogbin E-5 (no date) 1963 OJ23 Orokaiva OJ23
Inonda

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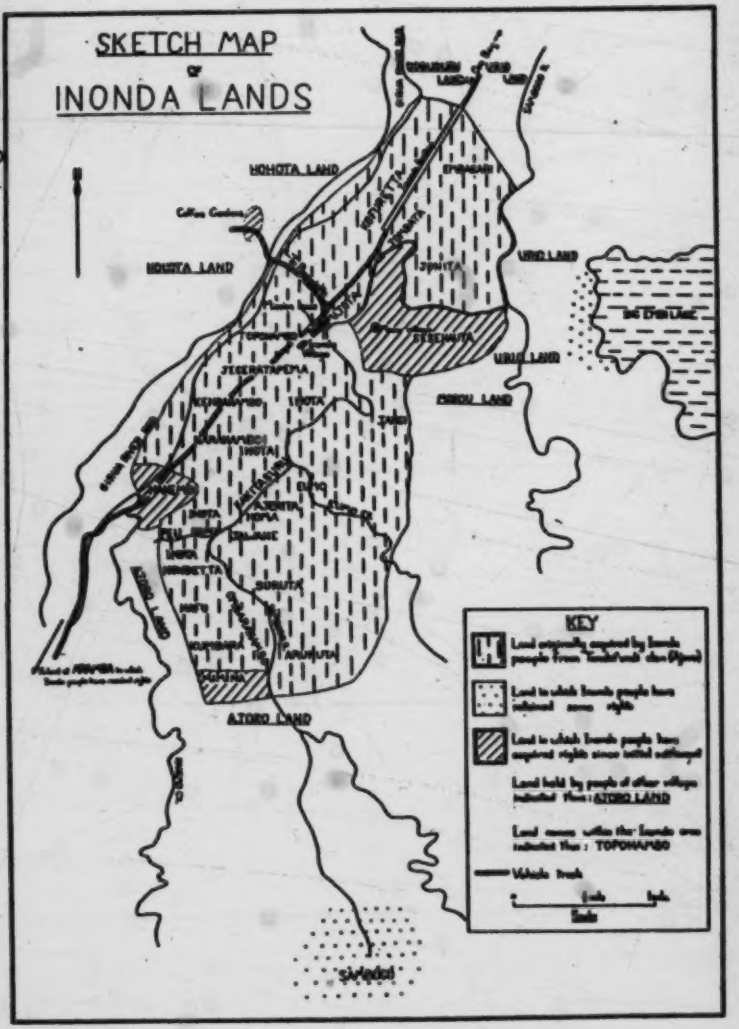
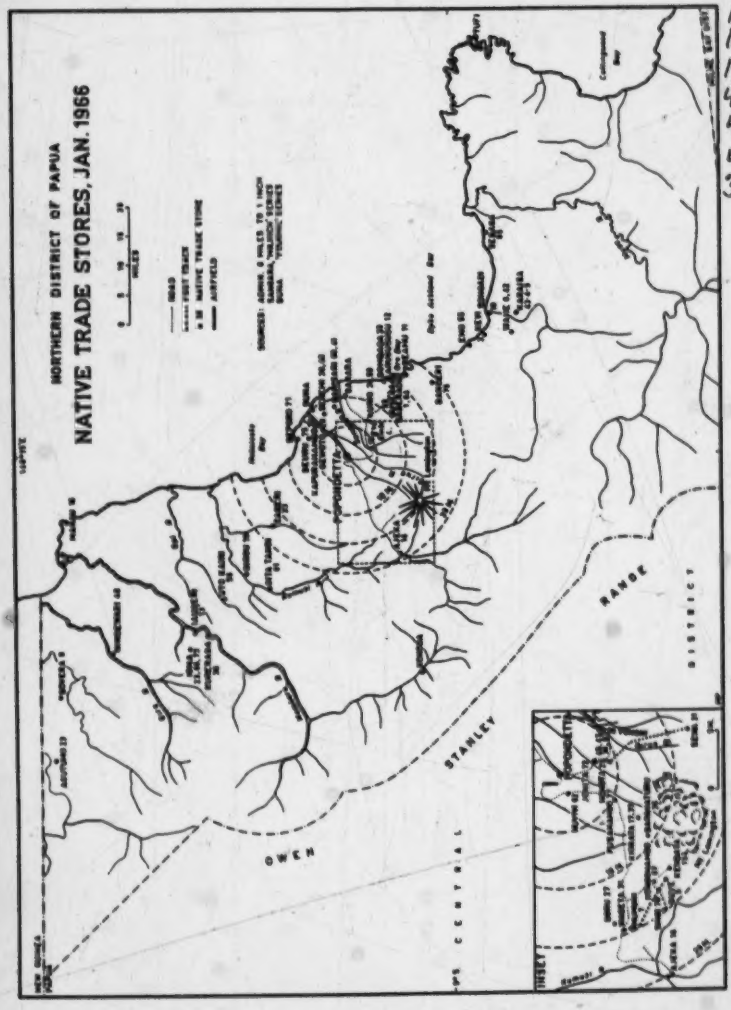


16: Oostermeyer & Gray U-5 (1965-1966) 1967 OJ23 Orokaiva OJ23



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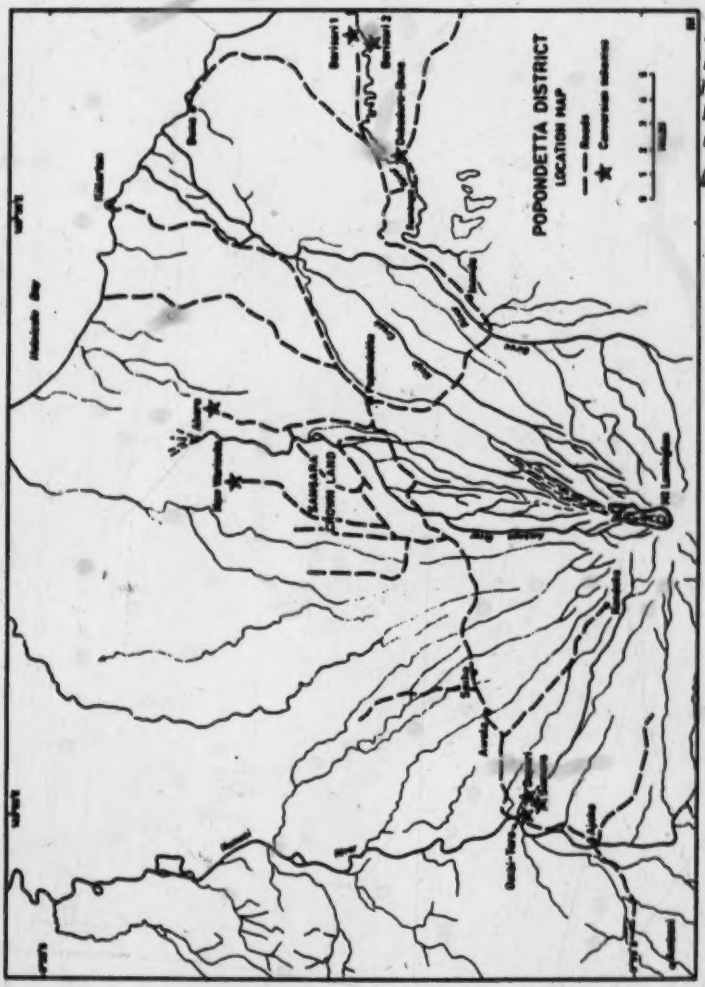
17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara



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423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kuai clan granting permission for the allocation of a block on Kuai land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving [illegible] compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

---

[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

[P 7-B)

[TEXT CONTINUED ON PAGE 8-B]

361 The new village sites also reduced walking time to the gardens.

618 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

618 701 722 727 729 657 199 177 491 361 166 [1464]

178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14-B]

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Fig. 12. *Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11*

[P.14-A]

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Sava people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

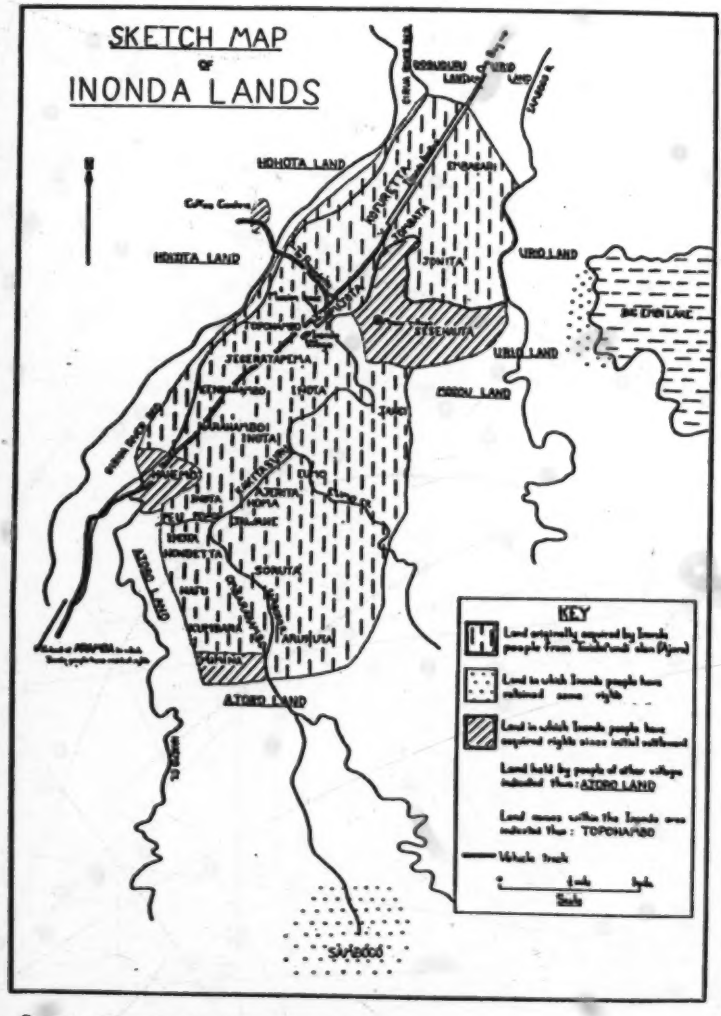
653 a council responsibility. While the rebuilding of the arterial road
from Popondetta and Kokoda was an expensive (and seemingly interminable)
●[491] responsibility of the government, the side roads became the council's
responsibility. Similarly, the government built the major hospitals
while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of
$8 for men and $1 for women. This is the only personal tax directly
[687] levied among Orokaiva village people and has replaced the government
head tax. Its collection was not a government but a council respon-
sibility, although defaulters could, of course, be brought before a
magistrate and sentenced to a term in a government jail. Councillors
explained to the villagers that the taxes they paid went to pay for
their roads, aid posts, water supplies, etc. The government hoped
that villagers would be more ready to pay their taxes if they could
see tangible local benefits to justify them. One effect of the system
was that villagers became very interested to see that as much as
possible of the tax money should be spent in their own locality. They
rapidly developed a strong propensity for parish-pump politics. When
I visited Sasembata district first, there was little evidence of any
council projects in the Sasembata wards. People objected to paying
[664] their taxes: they were not getting anything for them. Pressure
resulted in roading improvements and plans for a comprehensive water
supply for the area. Councillors who did not fight successfully for
such causes were liable to miss re-election.

The head tax manifestly acted as a significant economic incentive.
[461] A man who grew no coffee and earned no money could not pay his tax.
Even if a man could not be bothered harvesting all his coffee, he
would certainly harvest enough to pay his tax. Some men who had no
coffee took plantation jobs a month or two before the tax was due. I
noticed this in two cases at Inonda; most of the Sivepe men had coffee
[687] gardens and did not need to work outside. For the first time, tax
defaulters in 1966 were actually jailed for two months. In one village,
Kendata, there were as many as 50 defaulters who fought the police
and ran into the bush; in Sivepe there were four, all without coffee
gardens.

In spite of this tension, people generally supported the ideology
[77] of the council: they wanted the "new age" and they wanted the kind
623 of services that were supplied by the council. At the same time it
was never forgotten that behind the tax-gathering councillors stood
the government police, armed and ready to make arrests if the councillors
were resisted or attached, as sometimes happened. Those who did not
pay and tried to escape arrests were judged by the conformists to be
ignorant men, unwisely looking for trouble. On the other hand, people
deeply sympathised with them. People wanted the "new age," but they
did not like the element of compulsion that went with it. They re-
elected the councillors who compelled them because they held the
Australian authorities, not the councillors, to be directly responsible.

MAP IV



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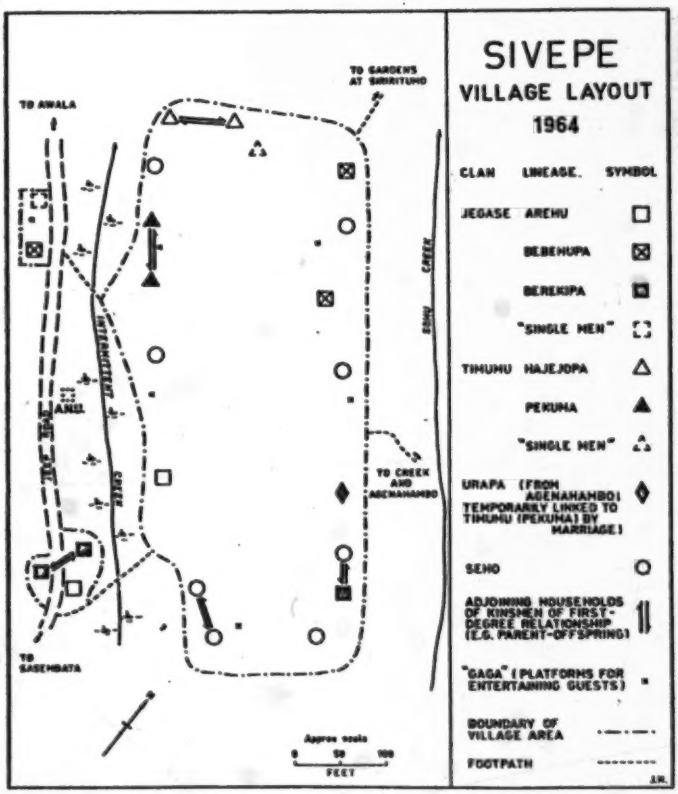
Source: Crocombe & Hogbin 1963 : 105

[End map 4]

Map V



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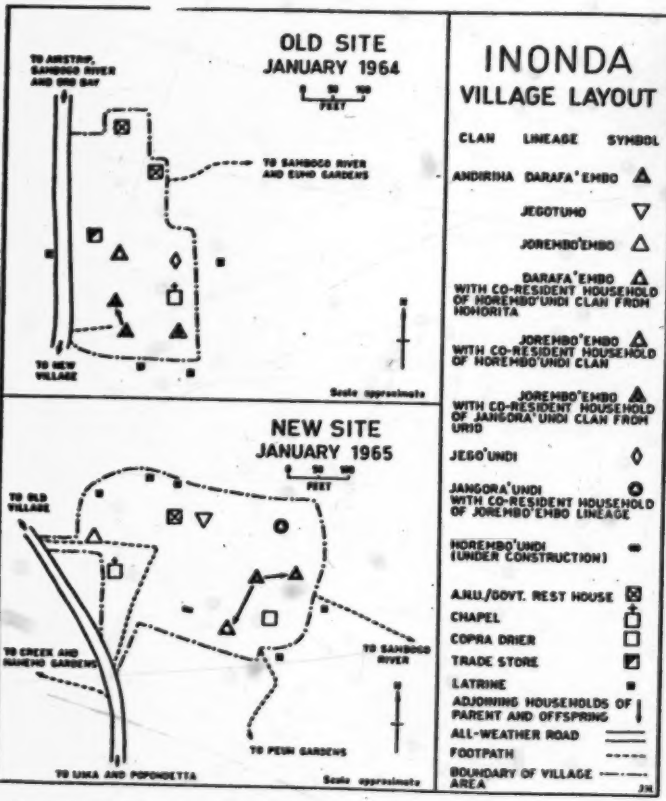
Source: Waddell & Krinks 1968: 38

[End Map 5]

Maps VII and VIII



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Source: Maddell & Krinks 1968: 54

[End Map 7]

Map IX

Source: Waddell & Krinks 1968: 34

[End Map 8]

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22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

Map XI

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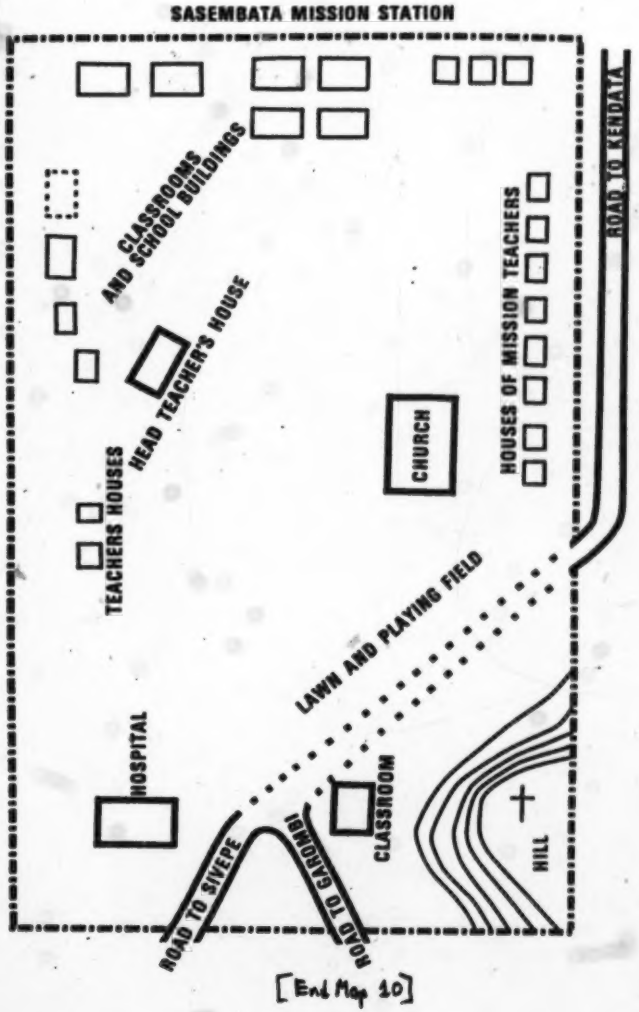
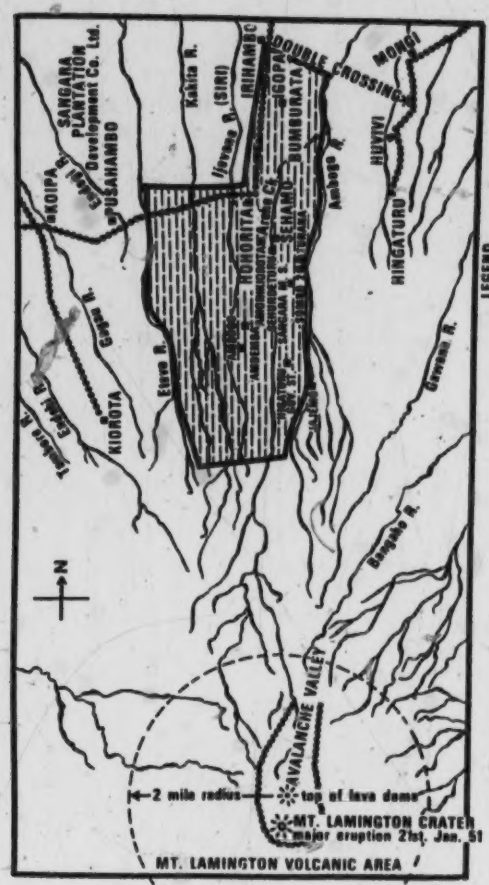


[End Map 10]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23, Orokaiva OJ23
Mount Lamington



Map XIII

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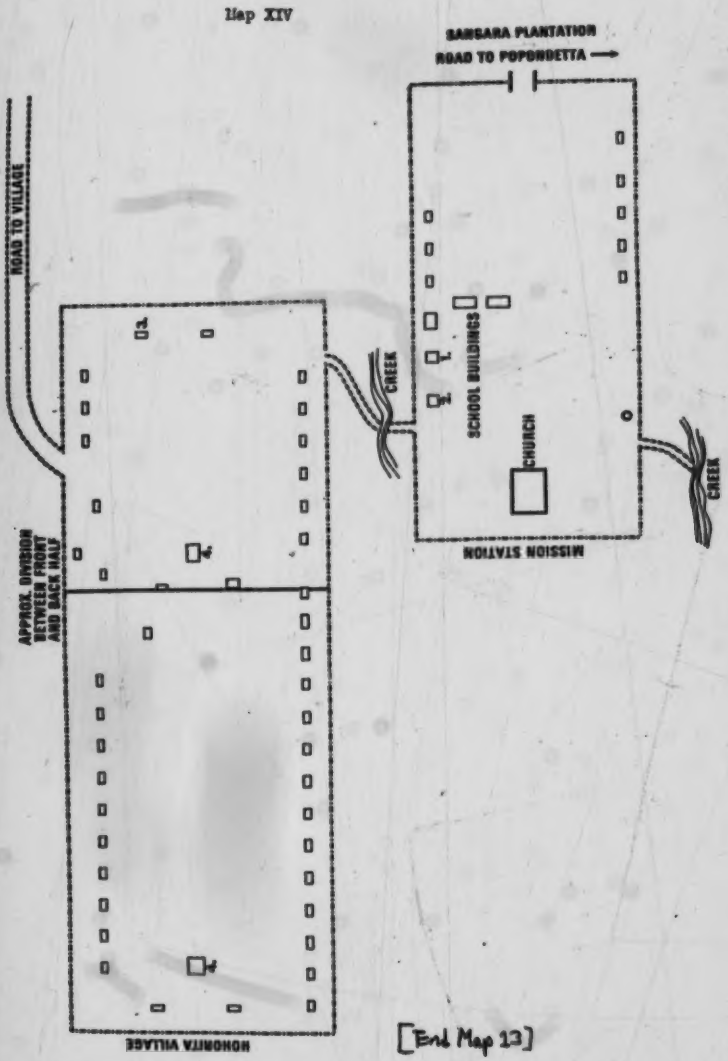
[End Map 12]

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

Map XIV



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[End Map 13]

139 condition, it was assumed that death occurred by either
731 the outward blast or the inward backwash. The medical authorities made no post-mortems, however, being fully occupied with the problems of the survivors who poured out from their living sites further down the slopes, shocked, in a few cases very badly burned, and without immediate means of support.

731 A main government trail from Kokoda to the coast, which
● [491] was widened into a military road during the war, winds over the shoulder of Lamington on its northwest side. Almost all of the evacuees headed for this road, some going west to the Wairopi crossing of the Kumasi river, others going north toward the coast. Within two days Government relief teams were flown to the area and were operating emergency camps in these two zones. Food, medicines and other supplies were sent in by way of adjacent airfields. The seriously injured were flown out to hospital centers. The first temporary encampments were condemned by the health authorities as they were in swampy or otherwise unsuitable settings; also the fear remained that they were too close to the source of possible further eruptions. Refugees on the west side were therefore moved back to a major camp at Ilimo. Those on the north (coastal) side were taken to two camps: the "Sangara" region people to Eroro, and the "Isivita" region people to Oro Bay. Emergency district headquarters were set up near the Popendetta airstrip on the north side, with an adjacent camp to stage the people back to resettlement areas. A government vulcanologist established a crude seismological station in a somewhat protected spot within the "closed" blast zone to bring the volcano under scientific surveillance.

In the areas that were most damaged and considered to be dangerous for an indefinite period because of their proximity to the active summit, practically all the occupants were killed. Government rolls of the survivors showed only some 400 as being from these settlements. Some were chance survivors in the more marginal zones, others were laborers, police, school children, or people who were visiting at the time. In the settlements lower down the mountainside and in the adjacent foothill and valley areas, casualties were sporadic and whole groups escaped unscathed. After the first panic of scattering, therefore, local groupings were able in the main to reassemble in the regional camps with such official aid as was necessary. Stray child survivors, including some infants, were readily taken under the care of other families, some of whom had lost children. In general, each group could be dealt with through its delegated leaders. Each was given its rations in bulk to use on its own responsibility and, where possible, accommodated as a unit even under crowded emergency conditions.

133 A second major eruption came on March 5. New ash
731 cone accumulated and blanketed the area, but there were no further casualties. Later that month, at the time of the writer's visit, the smoking peak had another great ash cone building up. There were minor ash eruptions in and around the crater and massive ash flows were occurring down the river courses; vegetation was burnt and water rendered unfit for use many miles into the zone of the surviving green forest and savanna. Uncertainty as to further possible

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the ordinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C. T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P. A. R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol".(1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, producers were required to deliver all produce to the government [651] depots at Higaturu, Popondetta and Buna.(2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

245 466 [465] [492] [493] No payment was prescribed, and none was made for carrying from the plantations to the depot at Higaturu. Sometimes payment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the ordinance were required to carry as punishment. Mules were later introduced to carry the produce from the factory to the port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

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241 [651] As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, producers were required to deliver all produce to the government depots at Higaturu, Popondetta and Buna. (2) The half of the

(1) P. A. R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P. A. R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

241 universally small and there is no evidence to suggest that any
[464] village producers are employing labour to increase production.[1]

454 Monetary investment at the village level is low and there are
493 no motor vehicles owned by individuals or groups of subsistence
407 villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

464 (i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage
[461] labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

731 (ii) Consequences of the disasters. The effects of the war and
433 the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[439] [2] With the single exception of the indigenous ex-servicemen settlers,
[464] several of whom own vehicles; imported foodstuffs comprise a signif-
[465] icant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16. A

A,[See Category 731, p.16--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

the losers. Villagers may also lose a fair proportion of their cash income through gambling.

(vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the period of most intensive cash crop production. Between about March and July the Higaturu Local Government Council collects its annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

Opportunities for investing savings occur with two local companies, Oro Ltd and the OCCS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

Apart from the few trade stores and coffee pulpers, little income is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tara (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

income derived from cash-cropping and trading. Prestige may be an even more important motivation to the acquisition of vehicles than it is with trade stores.

Other property

As shown in Table 3 the entrepreneurs have tools to the average replacement value of $30 and equipment associated with their cash-cropping to an average replacement value of $180 - an average of $210 per man. By comparison Orokaiva people of Inonda village had only about $13 and Sivepe village about $18 worth of tools and equipment per household.[1]

The entrepreneurs all had a range of consumers durable goods far beyond that found in villages. A and B owned bicycles worth about $50 each, A and D each had a radio which cost $60 and $47 respectively, and A and D also each owned wood-burning stoves costing about $70 each. The wife of C had a sewing machine which cost $70 (not listed in the table of tools and equipment as it is used only for domestic purposes). All had kerosene lamps and three of the four had clocks or watches. The average replacement value of the above items was in the region of $125 per man. It is estimated that possessions of this kind in Orokaiva villages in which we worked would average about $10 per householder.

The houses of the entrepreneurs are all somewhat larger than the average village house, and for many years B maintained two homes - one in his coffee garden and one in the cocoa garden. D's home is much more elaborate than the others and contains crockery, cutlery and kitchen utensils worth over $50 as well as beds, chairs, tables and curtains which are almost never found among villagers. A has a modern cocoa fermentary worth $500, B has a coffee drying store and trays, estimated worth $80, and C a copra drier worth about $100.

By comparison with other Orokaiva people the entrepreneurs have few livestock, at least partly because they damage the root systems of the coffee and cocoa trees. A, B and C had none at all and D kept thirteen fowls from which he hopes to breed for commercial egg and poultry production. Householders at Inonda and Sivepe, by contrast, kept an average of two pigs and two to three fowls each.

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[TEXT CONTINUED ON PAGE 16]

[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

361 Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Huhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

491 The village is about ten miles from Popondetta, to which it is 368 linked by a good all-weather road. About three miles towards 131 Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them 366 by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two 368 of them expatriate-owned, and a new Administration school. This 133 latter is not used by the Inonda people, although they believe it 508 to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was 494 closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

102 MAP 5
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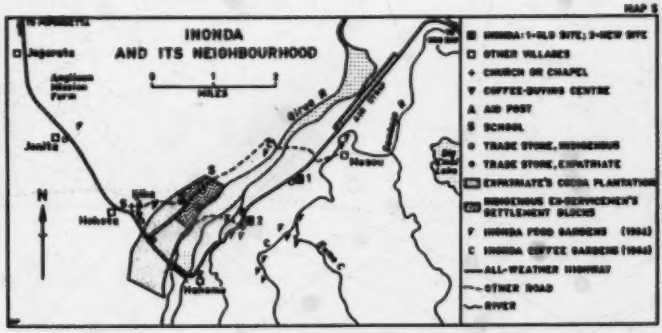

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[1] Crocombe and Hogbin 1963b:44-5, Rimoldi 1966:25. Other comparisons in this section are drawn from the same sources.

657 647 177 Employed rather widely over the last decade or so, they have a responsible job, for which the qualifications include a reasonably high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European resources, namely motor transport. They very often have the power [499] to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers came from the Motu-speaking coastal district. One [799] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
197 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, [799] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that [757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital [743] and most of the referred cases actually went to Saiho. There was a [758] monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

[582] There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, [232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. [494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

The contacts described in this section, unlike the ones 177 discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

Chapter 4

The two communities: Sivepe and Inonda

184 The villages of Sivepe and Inonda represent the extremes of population density, and therefore land availability, in the sub-district. There are significant differences between them in resources and in the degree and character of their participation in the monetary economy and their interactions with the principal external agencies.

Sivepe

133 Sivepe is situated 1,300 feet above sea level on the lower north-
[134] western slopes of Mt Lamington. Its land is classified by the CSIRO survey (1964:32) as belonging to the Awala Land System and is characterised by fertile loam topsoils and a close-textured drainage
137 system. The vegetation comprises predominantly secondary forest and various stages of regrowth, with little grassland. The land-
311 use potential is regarded as high and the fertile, well-drained soils are best suited for perennial (tree) crops.

301 The village is located in the most densely settled part of the sub-district, the Saiho census division, and there are eighteen villages within a radius of three miles (see Map 3). It has been
[131] on its present site for about ten years, but preparation of a new site, less than one mile away, was commenced late in 1964. Sivepe is twenty-eight miles from Popondetta by road, the last three miles being a little-used jeep track linking Awala with the villages on the lower slopes of Mt Lamington. Consequently, coffee and rubber have to be carried to Awala (or nearby Saiho) to be sold and purchases are normally made in the trade stores there. At Awala are a European rubber plantation, a rubber factory which purchases village latex and a well-stocked trade store. At Saiho are two trade stores, the principal Administration hospital for the Northern District (where medical orderlies and infant welfare nurses are trained) and a primary 'T' school. In mid-1964 a daily bus service was established between Saiho and Popondetta.

49 Also in mid-1964, several villages voluntarily commenced the
[49] construction of a new all-weather road, linking Sasembata mission

[TEXT CONTINUED ON PAGE 37]

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.A

[4] See Appendix 2.C

A, [See Category 163, p. 307--Analyst]

B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

444 Each trader in group I still holds a current trading licence and intends to re-open his store at some future date. A closed his store after only two months of operation, because his duties as a local government councillor were too time-consuming. He intended to resign before the next election in June 1966 and re-open his store.

444 B started his store in 1961 with the relatively large capital
472 of $478, of which $300 was his own money, and the remainder his
452 younger brother's. The store was built some distance from his house, but when $240 was stolen from the store in 1962, the two brothers built a new store adjacent to B's house. It was closed in June 1964. Credit had been given too freely and $157.48 was still outstanding late in 1965, and a European stated that B had
[474] been selling goods well below cost price. Competition from a
[477] local co-operative store which B helped to establish (and with which he is still closely associated) reduced his turnover. B bought his stocks on credit from Oro Ltd, and built up a large debt until further credit was refused. B still owes $220 to Oro Ltd, and due to insufficient understanding of the system, feels that he has been deceived.

Subjects C and D were awaiting the proceeds of their next cash crop sale with which to restock their stores.

444 The stores owned by group II traders have so far been only moderately successful. With the exception of G, who opened his store only six months ago, they have operated their stores for at least nineteen months. E has only recently re-opened his store, after it had been closed for four months.

[426] Group III. Trader I started his store with $200 which was lent him by his younger brother-in-law, who is a clerk with a commercial firm at Lae. The brother-in-law pays all store bills, and I had repaid him $104.

[451] J's trade store was managed by his elder brother, who could neither read nor write and did not keep any store books.

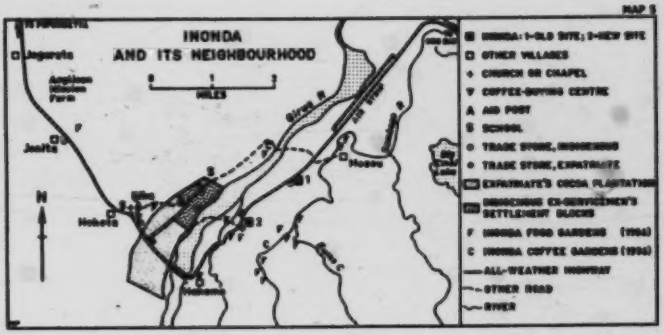
444 K started his store with $390, helped by his younger brother
474 who works in Port Moresby. K runs the store on a quasi co-operative basis, with forty-two shareholders belonging to his own and another clan. His brother contributed $200 to the initial cost, and the
[499] value of the other shares varied between 50 cents and $10. All are ultimately to be $10. Most of the store's turnover comes from other villages and the people of K's village are at present building a road to attract more people to the store.

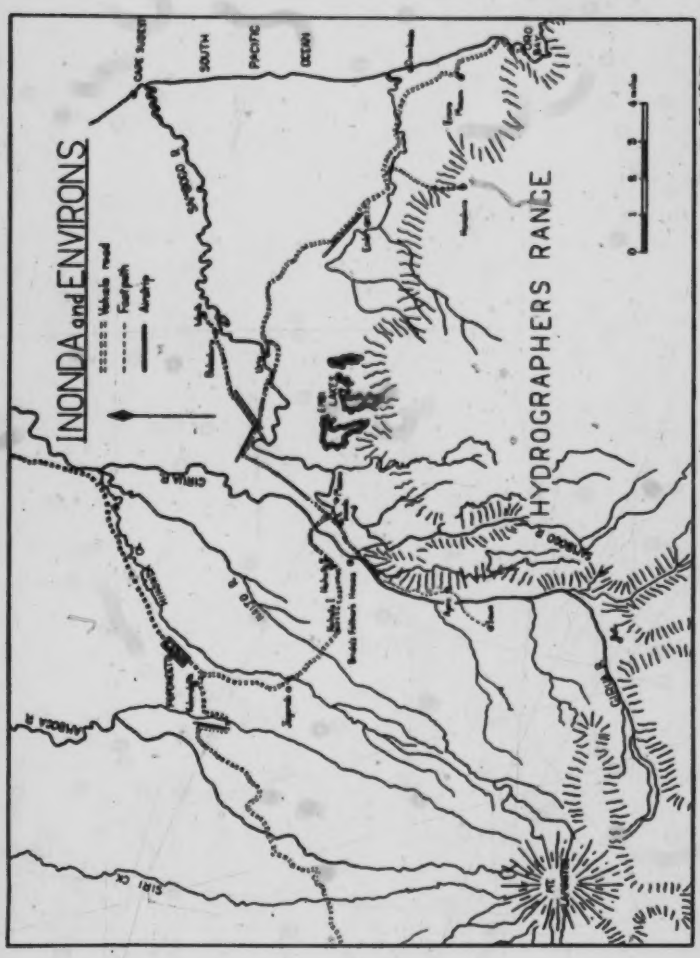
444 L began her store with $206; when she is away, it is managed by her father.

Inonda lies in Buna census division, the most sparsely settled part of the Popondetta sub-district (with the exception of Buhurundi). Apart from an ex-servicemen's settlement block, there are only four villages within a three mile radius of both village sites (see Map 5). At the beginning of the survey, Inonda was on a site it had occupied since 1956, but during 1964 it was rebuilt about a mile to the south-west, still on the forest-grassland border.

The village is about ten miles from Popondetta, to which it is linked by a good all-weather road. About three miles towards Popondetta, west of the Girua River, is Hohota village and its off-shoot settlement, Ijika, where there is a local government council aid post, a church and attached primary school (with classes to standard III), and a trade store. Running north-east from the main road parallel to the Girua River is a line of ex-servicemen's settlement blocks - one expatriate - and eleven Papuan-owned, one of them by a former resident of Inonda and several others from nearby villages. There are five trade stores on or near the blocks, two of them expatriate-owned, and a new Administration school. This latter is not used by the Inonda people, although they believe it to be a higher standard than the mission school. Eastwards from Inonda, the road runs through sparsely-populated grass plains to the coast at Oro Bay. Late in 1964 the Popondetta airstrip was closed and a wartime tarmac strip two miles east of the village was reopened to serve the township, with a consequent increase in traffic along the main road.

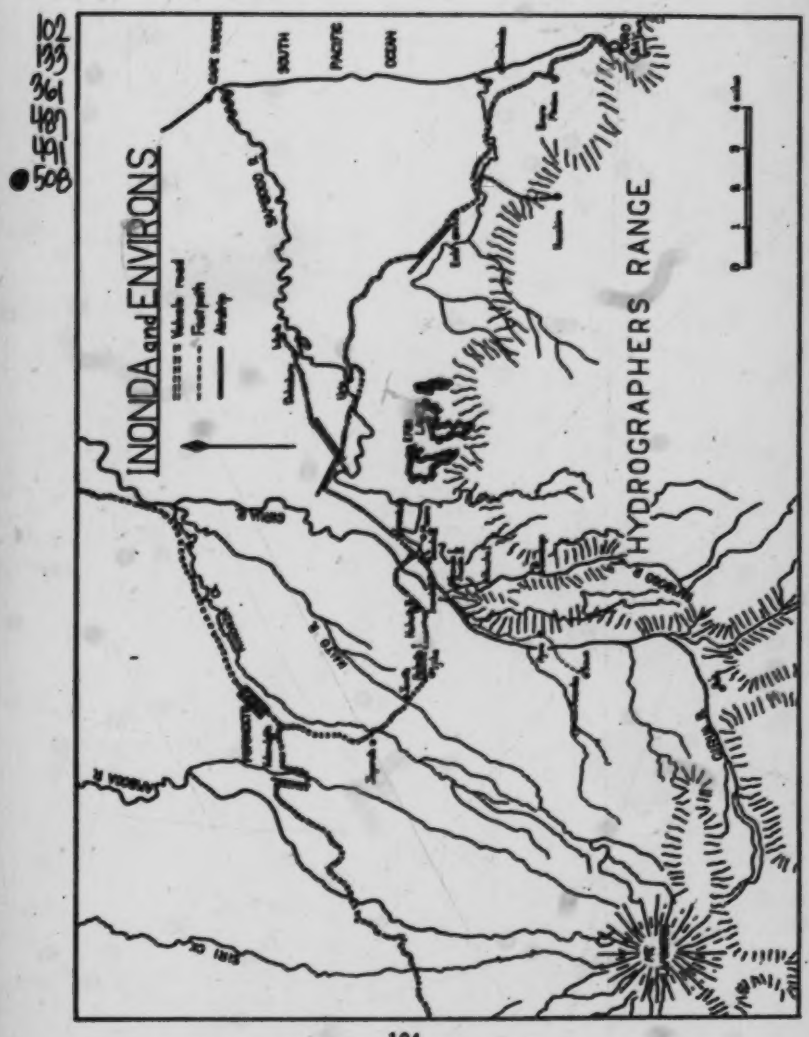
MAP 5





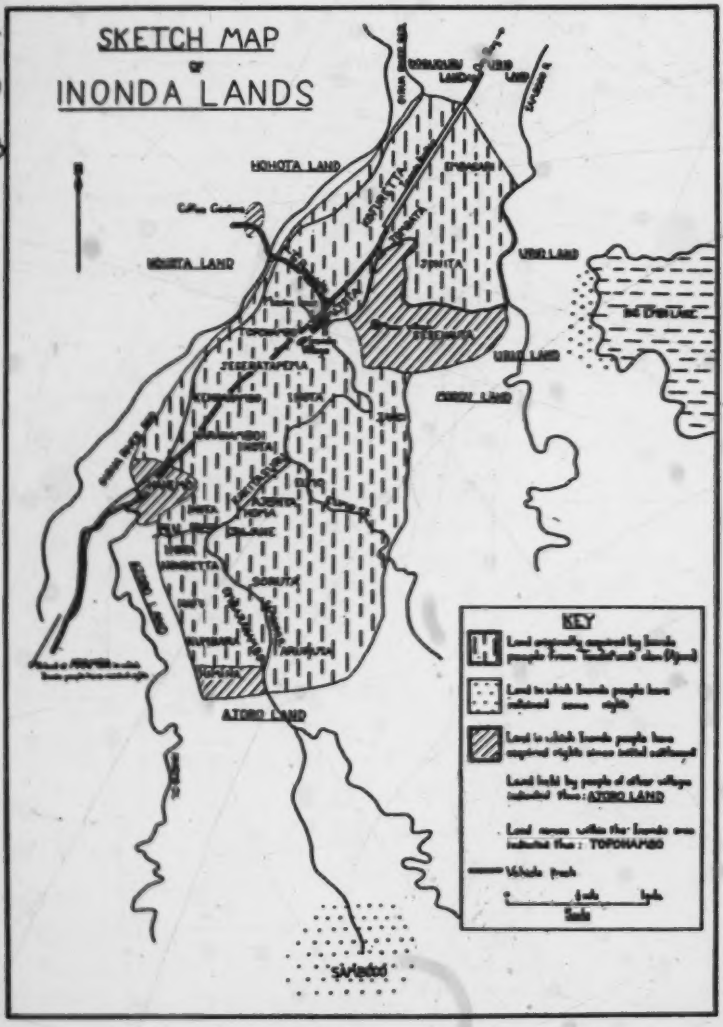
102
133
361
487
491
508

14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda



14: Crocombe & Hogbin E-5 (no date) 1963 QJ23 Orokaiva QJ23 Inonda

102
193
423
491
508



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

439 communities. When these do occur they are usually between neighbouring
437 communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal
438 trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade
[628] was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

433 *Money.* With a few reservations, one could describe the role of money in
436 the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social
436 groups. Among the Orokaiva as among the Siane, money mainly enters the
454 luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and
436 church donations), but sometimes utilitarian (payment of taxes). Purchases in
439 trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea,
[262] batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

171 The use of money for capital goods merits some attention. Salisbury defines
436 capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in
439 progress. Tools and implements are classed as 'durable instruments of production.' Houses and clothing, etc., are called consumer's capital because they
511 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

Chapter 4

The cash economy

4. Income and expenditure[1]

Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts of large bride price with other kin during the year but no one had had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

511
454

Table 7

Expenditure by 12 households

Items	Amount (nearest $)	Total	Household range	Average
Domestic:				
Food and household	96			
Clothing	42			
Utensils	28	166	0-40	14
Equipment:				
(including gun and cartridges)	90	90	0-56	8
Social obligations:				
Bride price and feast contributions	36			
Other gifts	52	88	0-20	8
Miscellaneous:				
Shares in O.C.G.S.*	20			
Tax (Council)	34			
Gambling	10			
Church donation	2	66	0-18	6
		410		34
Current savings:				
Individual				
Contributions to joint accounts	60		0-12	5

* Orokaiva Coffee Growers' Society, which sells $10 shares (see Crocombe and Hogbin 1963:93).

•511
439

Table 4:6

Sivepi: non-traditional household property, November 1964
(Figures represent numbers of items)

Household no.	1	2	3	5	6	9	10	11	13	14	15
No. of adults	2	3	2	3	1	3	2	3	2	3	2
Tools and equipment:											
Axe	2	2	2	2	1	2	2	2	1	1	2
Bush knife	3	4	3	4	2	2	2	3	3	2	3
Grass knife	2	1	1	1	-	1	-	3	2	2	2
Shovel/spade	2	-	-	1	-	-	-	2	1	-	1
Hoe	-	-	1	-	-	-	-	-	-	-	-
Fork	-	-	1	-	-	-	-	-	-	-	-
Pocket knife	2	4	1	2	2	2	2	3	1	2	1
Saw	-	-	1	-	-	1	-	-	-	-	1
File	-	1	1	1	-	1	-	1	-	-	-
Hammer	-	-	-	-	-	-	2	3	1	-	1
Adze	-	1	-	-	-	-	-	-	-	-	-
Mule	-	-	-	-	1	-	-	-	-	-	-
Spanner	-	-	-	-	-	1 set	-	-	-	-	-
Shotgun	-	1	-	-	-	-	-	-	-	-	1
Sack	2	-	-	3	-	1	-	-	-	2	-
Household:											
Cutlery	21	13	2	11	2	9	2	24	11	4	4
Cooking pot	3	3	1	1	-	4	1	4	4	2	3
Dish/plate	9	20	9	10	-	8	3	12	13	10	13
Mug/glass	2	9	1	5	-	4	-	3	2	5	4
Teapot	-	-	-	-	-	-	-	1	1	-	-
Needle and thread	-	-	-	-	-	Yes	-	-	Yes	Yes	-
Hurricane lamp	2	1	1	1	-	1	-	-	2	1	1
Torch	-	-	-	2	-	-	-	-	-	1	-
Radio	-	1	-	-	-	-	-	-	-	-	-
Personal:											
Blanket	2	3	-	-	1	4	1	2	3	1	1
Sheet	2	4	3	-	1	1	-	2	1	-	1
Pillow	-	1	-	1	-	2	-	1	1	-	-
Mosquito net	-	-	-	-	-	1	-	-	-	-	-
Sleeping-mat	1	3	-	2	-	-	-	1	2	2	-
Towel	3	7	1	1	1	3	-	1	1	1	-
Groundsheet cape	-	-	-	1	-	-	-	1	-	-	-
Suitcase/kitbag/pack	4	4	2	-	-	2	1	5	4	1	3
Laplap	9	2	1	-	-	2	11	3	5	2	1
Shirt/blouse/dress	5	4	3	4	2	2	1	7	6	2	2
Trousers/shorts/skirt	9	11	3	3	1	7	-	13	5	5	4
Underwear	-	2	-	-	-	-	-	1	2	1	1
Sweater/coat	-	-	-	1	-	-	-	-	1	-	1
Footwear	-	2	-	2	-	1	-	-	1	-	-
Belt	-	1	-	-	-	1	-	1	1	1	2
Handkerchief	-	-	-	-	-	-	-	-	-	1	-
Hat	-	1	-	-	-	-	-	-	-	-	-
Hair oil/powder	-	-	-	-	-	1	-	-	-	2	-
Comb/brush	-	-	-	1	-	-	-	4	-	-	-
Toothbrush	-	1*	-	-	-	-	-	-	-	-	-
Mirror	2	2	-	2	-	1	1	2	3	2	1
Scissors	-	1	-	-	-	-	-	-	-	-	-
Biro/pencil	-	2	-	-	-	-	-	3	-	-	-
Purse	-	2	-	-	-	1	-	-	1	-	-
Lighter	-	-	-	-	-	-	-	1	-	-	-
Watch	-	-	-	-	-	-	-	1	-	-	-

[621]
[177]

* Acquired during the second world war!

Notes. 1. There is also some communally-held rubber-tapping equipment (tapping tools, spouts and a bucket) in the village, provided by the owner of the local rubber factory.

2. Considerable use is made of discarded metal containers, e.g. large cans for cooking pots, screw-top tobacco tins for lime, and beaten-out drums for hearths.

614 454 443 Company already operates a trade store with a liquor licence close to the village.

(e) Other household property

511 The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petos (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

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Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

301 * For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

511 Only one man owns a mosquito net and there is only one transistor
[207] radio in the village. Some of the older people still wear tapa
291 cloths but new ones are seldom made now. The more common form of
178 dress is a pair of shorts, a skirt or a laplap, the skirts being
[797] mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

411 Two men in the sample own shotguns, costing $58.75 and $59.75.
[435] These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

342 None of the houses conforms to the traditional Orokaiva style,
178 but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 A creek running beside the village provides the water for bath-
487 ing, cooking, laundering, washing dishes and pulping coffee. Paths
514 are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 Inonda lands run from the low plains (200 feet above sea level),
134 beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with
[311] the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

454 (d) Monetary and other assets

Table 4:12 shows that the monetary assets of the village in November 1964 amounted to $166.70, or $10.40 per adult resident. In contrast with Sivepe, most (67 per cent) was invested in savings bank accounts and almost all the rest was held in cash. Only two men owned shares although householder 23 intended to buy some if those of either Oro Ltd or OCGS proved their value.

Table 4:12

Inonda: monetary assets of households, November 1964
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Total
16	12.95	16.18	10.00	-	39.13
17	3.90	-	-	-	3.90
18	0.80	-	-	-	0.80
19	-	-	-	-	-
20	1.50	36.00	-	10.00	47.50
21	3.00	20.00	-	-	23.00
23	1.07	20.00	-	-	21.07
24	11.80	19.50	-	-	31.30
Total	35.02	111.68	10.00	10.00	166.70

438 [444] In October 1963, the head of household 23 established a trade store, deriving most of his supplies on credit from Oro Ltd's wholesale store in Popondetta. His stock included tinned foodstuffs, rice, biscuits, sugar, salt, tea, soft drinks, chewing gum, cigarettes, trade tobacco, laundry soap, matches, kerosene, torch batteries, clothing, razor blades and playing cards. In addition, he obtained some goods from Chinese-owned stores where the wholesale prices, particularly for rice, were considerably lower. Store customers included people from Inonda and neighbouring villages and passers-by on the main road. Business was best between February and April 1964 when construction gangs were improving this road. By July, most of the villagers had moved to the new site and a new, better-stocked store was opened about two and a half miles away, and sales of the Inonda store began to decline. When the store-owner moved to the new site, he did not begin rebuilding the store until late in December and kept only a few goods (biscuits, tobacco and kerosene) in his house.

●511 177 (e) Other household property

Table 4:13 shows the inventories of household property acquired directly or indirectly from the cash sector of the economy, including

[TEXT CONTINUED ON PAGE 63]

511
439

Table 4:13

Income: non-traditional household property, November 1964

Household no.	16	17	18	19	20	21	22	23	24
No. of adults	4	2	1	1	2	2	2	2	2
Tools and equipment:									
Axe	1	2	1	1	1	2	1	3	2
Bush knife	3	2	1	2	3	4	3	4	2
Grass knife	2	2	2	1	1	1	3	2	2
Spade	4	1	-	1	1	1	-	-	1
Hoe	-	1	-	-	-	-	-	-	-
Pick	-	-	-	-	-	-	-	1	1
Rake	-	-	-	-	-	1	-	-	-
Saw	-	-	-	-	1	1	1	-	1
File	1	-	-	1	-	1	1	1	2
Hammer	2	1	-	1	1	1	2	1	2
Chisel	-	1	-	-	-	-	2	1	3
Measuring tape	-	-	-	-	1	-	-	2	-
Level	-	-	-	-	-	-	-	1	1
T-square	-	-	-	-	-	-	-	-	1
Ladder	1	-	-	-	-	-	-	1	-
Swimming glass	2	3	-	-	1	1	1	-	1
Fishing line	-	-	-	-	1	-	-	1	-
Shotgun	-	-	-	-	-	-	-	1	-
Household:									
Cutlery	13	5	8	2	6	15	7	15	13
Cooking pot/kettle	12	7	4	-	3	4	4	6	5
Dish/plate	21	20	8	-	11	8	6	17	16
Mug/glass	2	3	1	-	3	-	1	7	6
Teapot	-	-	-	-	-	-	-	1	1
Pressure lamp	-	-	-	-	-	1	-	-	1
Hurricane lamp	1	1	1	1	1	1	1	1	-
Torch	1	1	-	-	1	1	1	-	1
Bucket	-	-	1	-	-	1	-	-	-
Water-drum	1	1	-	-	-	1	-	2	-
Iron	-	-	-	-	-	-	-	1	-
Broom	-	-	-	-	-	4	-	-	-
Table	-	2	-	-	1	-	-	-	1
'Stool'*	2	4	-	2	4	3	1	5	2
Tea-towel	-	-	-	-	-	-	-	2	-
Personal:									
Blanket	6	1	2	1	1	2	-	3	1
Sheet	-	2	-	-	1	-	-	1	1
Pillow	1	-	-	-	-	2	1	2	2
Mosquito net	3	2	1	2	1	1	1	3	2
Towel	-	4	-	-	-	1	-	1	1
Suitcase/box/pack	3	2	1	-	1	2	1	4	1
Laplap	-	1	-	-	-	-	1	-	2
Shirt/dress/blouse	13	4	1	3	3	13	-	11	4
Shorts/skirt	13	1	3	1	4	10	1	10	7
Underwear	-	-	-	-	-	-	-	10	-
Pullover	-	1	-	-	-	-	-	-	-
Footwear	-	-	-	-	-	2	1	3	-
Handkerchief	1	-	-	-	-	-	-	1	-
Tie	-	-	-	-	-	-	-	2	-
Comb/hairbrush	2	1	-	-	-	-	-	-	-
Scrubbing brush	-	1	-	-	-	-	-	-	-
Mirror	2	1	-	1	-	1	-	1	1
Scissors	-	2	-	-	-	2	-	1	-
Umbrella	-	-	-	-	-	1	-	-	-
Pencil	3	-	-	-	-	-	-	-	-
Watch	-	-	-	-	2	-	-	-	-

* These are old mortar-bomb cases which, inverted, serve as stools.

[m]

trade stores and wartime dumps. Most of the tools used regularly were purchased, but those in less constant use, such as picks, rakes, hammers and saws were mostly salvaged. The 'swimming glass' (goggles for fishing) is the only common piece of equipment not used in Sivepe.

Inonda differs from Sivepe in household goods in that hurricane lamps are in common use, partly perhaps because kerosene is available at the trade store. More people own torches, which are often used when hunting by night. Mosquito nets also are far more common in Inonda (although many are in poor condition) and this in part is due to a higher incidence of mosquitoes. Four households possess 44-gallon drums to collect rainwater.

Several women make their own dresses and skirts and one has a flat-iron (which was not used during the survey). Laplaps are much less common in Inonda than in Sivepe.

The different environments of the two villages are illustrated by various items in Table 4:14.

Table 4:14

Inonda: household property derived from the subsistence sector

Household no.	16	17	18	19	20	21	22	23	24
Item									
Sago-beater	4	1	-	3	-	1	1	-	2
Fishing net	1	1	1	-	-	1	1	-	-
Spear	3	7	-	3	2	4	3	2	2
Sleeping mat	7	3	2	2	-	2	1	4	2
Tapa cloth	1	-	20	1	-	2	-	-	5
Comb	-	-	-	1	-	-	-	-	-
Lime pot	-	-	1	1	1	-	-	-	1
String bag	5	2	4	1	2	4	2	6	6
Drum	-	2	-	1	-	1	1	1	1
Di and hambo	-*	28**	-	-**	7	-***	5	-***	-#
Clay pot	-	-	-	-	-	-	-	1	-

* Kept by relative in another village; quantity unknown.
** Given to household 17 by household 19 who retains right of use.
*** Some given away in exchanges, others stolen.
# Unknown quantity kept by daughter in another village.

In Sivepe there are no hunting or fishing spears or fishing nets, nor are there any sago-beaters whereas most Inonda men possess both spears and sago-beaters. The greater number of tapa cloths in Sivepe is probably related to its greater distance from Popondetta, and so to the general level of acculturation. This likewise accounts for

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

the slightly wider range of property evident in Inonda. Sivepe has slightly higher monetary assets than Inonda ($18.96 and $18.52 per household) and a slightly higher percentage of cash in hand (26.9 per cent compared with 21 per cent).

The substitution of imported items for equipment and property traditionally produced within the village has eased many subsistence tasks such as clearing bush and gardening. Traditional cooking utensils, which took time to make and were easily broken, have been replaced by metal pots and dishes. Guns (and torches) have brought more reward for less effort in hunting, and fishing has become easier with goggles and elastic-propelled spears. Mosquito nets and bedding have made sleep more comfortable. Storebought goods and introduced plants have made possible a more varied diet, particularly during the dry season. The improvements have been on a small scale and have required the diversion of effort into non-traditional channels to obtain the necessary cash. With the exception of the trade store owner in Inonda, few people use cash to make large productive investments (discounting the substitution of steel for stone tools) in village-based activities.

432 derived from the data is in part misleading since sales of coffee were made periodically from June through to September while rubber can be, and is, sold at any time of the year. A feature of both crops is, however, that substantial quantities are harvested, processed and stored prior to entry into the exchange system. Unlike most subsistence crops both are capable of storage while, in the case of coffee, the infrequent opportunities for sale make this a necessity. Over the survey three sales of rubber and five of coffee were recorded.

511 (iv) Storebought goods (Table 10:7 and Fig.10:3). The distinct periodicity apparent in the movement of the major storebought goods is connected with both seasonal factors and the receipt of parcels from kinsmen in wage employment. The consumption of these goods can be variously judged, according to the time of year, as supplementing the subsistence diet or as being surplus to requirements. During period I, with little feasting and an abundance of garden produce (plus a shortage of available cash), only a small quantity of food is purchased and none circulated. The acquisition of rice is at a peak during period II to compensate for the shortage of starches in the subsistence sector; yet even at this time consumption amounts to only about 1 lb of white rice per adult per week. Most is purchased in 1 lb or 2 lb lots from local trade stores, although on one occasion (in week 16) a 56 lb bag was purchased. [262] Most conspicuous consumption and exchange takes place during [439] period III: tinned meat and fish which are frequently consumed with the staple foods exceed rice in the value of exchanges, but acquisitions of them only amount to about 0.5 lb per adult per week.

The climax is the circulation of tobacco and clothing during period II reflects the receipt of two gift parcels by sample members, with goods to an estimated value of $65. In the case of cartridges the increased circulation during the dry season was associated with improved hunting opportunities and, in connection with them, the quasi-entrepreneurial activities of one sample member.[1]

The manner in which storebought goods are circulated is similar to that of subsistence produce in that there is little storage or stock held. Because the utilisation of these goods is related primarily to specific circumstances, such as the availability of cash, receipt of gift parcels and feast requirements, the pattern of exchange over time assumes a highly irregular form which, to a considerable extent, obscures seasonal variations. It should be noted, however, that this form closely parallels that of the circulation of subsistence produce (see Fig.10:2). A

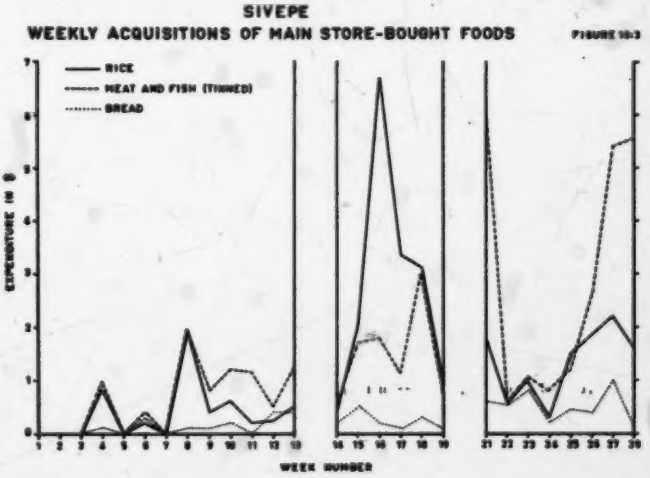
A [See Category 438, p. 193--Analysis]

[1] See p.119.

Table 10:7

Sivepe: mean weekly transactions of storebought goods during each recording period
($)

		Period		
		I	II	III
Rice	Acquisition	0.42	2.75	1.35
	Disposal	-	0.59	0.21
Tinned fish/meat	A	0.71	1.49	2.89
	D	-	0.15	0.53
Tobacco	A	0.73	3.31	0.97
	D	-	0.75	0.04
Clothing	A	2.36	4.12	0.56
	D	0.03	0.46	-
Cartridges	A	0.38	1.82	0.56
	D	-	0.32	0.01
Total: storebought goods (incl. those not shown)	A	7.49	22.32	12.40
	D	0.22	2.78	0.82



B. Store-bought goods and cash

Household	No. of adults	No. of man-weeks recorded	Store-bought goods ($)								Cash ($)	
			Foodstuffs and stimulants		Personal		Household		Tools and equipment		Cash	
			A	D	A	D	A	D	A	D	A	D
1*	4	86.3	0.34	0.04	0.53	0.03	0.04	-	0.06	-	0.41	0.46
2*	4	76.4	0.32	0.04	0.42	0.01	0.03	-	0.03	0.01	0.77	0.49
3*	2	51.1	0.28	-	0.05	-	0.03	0.01	0.10	-	1.04	0.89
4	2	9.6	0.02	-	-	-	-	-	-	-	0.05	-
5*	3	58.9	0.26	0.01	0.18	-	0.03	-	0.13	0.01	0.38	0.50
6	1	25.6	0.08	-	0.06	-	-	-	0.12	-	0.08	0.02
7	1	16.4	0.03	-	-	-	-	-	-	-	-	0.02
8	1	25.3	0.20	0.02	0.02	-	0.01	-	-	-	0.21	0.16
9*	2	47.3	0.35	0.01	0.11	0.01	0.07	-	0.02	0.01	0.46	0.45
10	2	39.1	0.04	0.01	-	-	-	-	-	-	-	0.02
11	4	68.1	0.08	-	0.01	-	-	-	-	-	0.07	0.07
12	2	16.4	0.08	-	0.07	-	-	-	-	-	0.13	0.20
13*	2	46.3	0.17	0.02	0.01	-	0.01	0.01	0.05	-	0.22	0.21
14	3	60.1	0.11	0.02	-	-	0.08	-	-	-	0.19	0.11
15*	2	50.3	0.23	0.06	0.08	-	0.03	-	0.33	0.33	0.90	0.72
Total	35	677.2										
Mean			0.21	0.02	0.15	0.01	0.03	-	0.06	-	0.40	0.35
Cash cropping households	T 19	416.6										
	M		0.29	0.03	0.24	0.01	0.03	-	0.10	0.01	0.59	0.53
Non-cash cropping households	T 16	260.6										
	M		0.21	0.01	0.02	-	0.02	-	0.01	-	0.10	0.08

* Cash cropping households. T = total. M = mean.

434 money received from them. As demonstrated in Table 10:15, such
431 people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third m[illegible] paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (0[illegible]c), and chewing gum (10c).

● 511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much
[436] the same manner - in effecting what are largely necessary exchanges with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the former to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others, while, of the five households with the highest incomes, the heads
[556] of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A. [See Category 437, p. 214--Analyst]

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Table 10:10

Sivepe: cash income and expenditure over 46.5 weeks, by household
($)

Household	Income	Expenditure	Net change to cash balances
1	95.99	63.80	32.19
2	78.57	61.00	17.57
3	79.92	60.49	19.43
4*	0.50	-	0.50
5	42.87	36.44	6.43
6	3.50	2.10	1.40
7**	12.50	12.30	0.20
8	11.75	10.62	1.13
9	62.35	60.29	2.06
10	17.50	5.80	11.70
11	30.90	21.83	9.07
12***	2.15	3.68	-1.53
13	58.75	45.49	13.26
14	21.98	16.63	5.35
15	77.08	67.82	9.26
Total	596.31	468.29	128.02
Mean per week:			
All households	0.99	0.78	0.21
Cash croppers	1.52	1.21	0.31
Non-cash croppers	0.36	0.26	0.10

* Surveyed for 6.5 weeks only. ** Surveyed for 27.5 weeks only.
*** Surveyed for 11.5 weeks only.

454 households, were recorded and each followed the receipt of a substantial gift or payment of cash. In the case of the first household, the head received a remittance of $12 in March from a brother and he immediately purchased shares to the value of $10 in Oro Ltd; in December he received another remittance of $10 from his sister's husband and immediately deposited $6 in his savings account, while a week later he received $10 from the husband of another sister and his wife deposited an additional $6 in the savings account. The head of the second household sold coffee to the value of $25.75 in July, depositing $10 of it in a clan savings account. The two households registered the second and fourth highest incomes respectively.

The irregularity of cash income, and therefore the need to hold cash against expected requirements, is undoubtedly an important factor in this apparent failure to accumulate capital. However, this consideration apart, it can be variously interpreted as, one, the inadequacy of income in relation to immediate requirements and demands from the monetary sector, two, a belief that there is no

[TEXT CONTINUED ON PAGE 207]

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Table 10:11

Sivepe: patterns of income and expenditure over 46.5 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
Number of adults	19		16		35	
Man-weeks surveyed	751.5		509.5		1,261.0	
	$	%	$	%	$	%
Sources of income						
Cash crops	174.95	35	15.00	15	189.95	32
OCCS dividend	5.40	1	-	-	5.40	1
Paid employment*	18.90	4	2.25	2	21.15	4
Remittances**	162.50	33	3.80	4	166.30	28
Gifts and payments from Sangata settlers	0.40	-	33.60	33	34.00	6
Subsistence produce: marketing, hawking and casual sales	16.50	3	10.75	11	27.25	5
Sales to Administration	7.80	2	3.45	3	11.25	2
Gifts, loans and payments from villagers	47.05	9	25.40	25	72.45	12
Researchers	62.03	13	6.53	6	68.56	11
Total	495.53	100	100.28	99	596.31	100
Mean per man-week	0.66		0.20		0.47	
Directions of expenditure						
Trade store purchases	189.91	48	38.82	53	228.73	49
Mission (Mothers' Union) purchases	4.35	1	4.10	6	8.45	2
Marketing, hawking and casual sales	18.08	5	2.60	4	20.68	4
Fares, travel	12.00	3	0.50	1	12.50	3
Bank deposits/shares	32.00	8	-	-	32.00	7
Administrative agencies	4.00	1	-	-	4.00	1
Mission offerings	45.09	11	2.60	4	47.69	10
Local Government Council tax	28.00	7	14.00	19	42.00	9
Gifts, loans and payments to villagers	57.90	15	10.34	14	68.24	15
Gambling losses	4.00	1	-	-	4.00	1
Total	395.33	100	72.96	101	468.29	101
Mean per man-week	0.53		0.14		0.37	

* Including local government Councillor's salary.
** Including gifts from wage earners in District.

454 worthwhile way in which they can invest their money or, three, a general inability of the people to handle their money effectively. An analysis of the pattern of expenditure on commodities (which account for 55 per cent of total expenditure) throws some light on the problem since, in this area, the people themselves initiate the act rather than any other institution.

● 511 Food and stimulants account for 62 per cent of the expenditure on commodities (see Table 10:12). In a predominately subsistence economy such purchases are generally considered to be of a luxury nature and superfluous to basic requirements. This view cannot be substantiated on the basis of the Sivepe evidence. Sixty-three per cent of rice purchases, the single most important item, are made during July, August and September - the latter part of the dry 046 season - when there is a serious shortage of cultivated foods. The 439 consumption of tinned meat and fish compensate, to some extent, for the inadequate protein content in the subsistence diet. Similarly, purchases of subsistence produce are restricted to the locally scarce resources of fish and meat, together with lime which is eaten with areca. Other foodstuffs include biscuits, bread, sugar and salt and only certain of these can be treated as purely luxury purchases. The other important commodities purchased are clothing and household goods (principally cooking utensils). Both are now essential elements in the material culture, having displaced their traditional counterparts.

438 In comparing the purchasing patterns of cash and non-cash croppers 439 (and therefore of high and low income households) a clearer pattern 511 of priorities emerges. Among the latter clothing is the most important commodity purchased, followed by rice, meat and fish, and household goods. Together these account for 72 per cent of all purchases. The range of purchases of cash croppers is more widely distributed, the above commodities accounting for only 50 per cent of the total. Thirteen per cent of their expenditure is on goods used in hunting - cartridges, torches, batteries and bulbs - and it is in this activity particularly that their larger incomes are of direct significance in effecting a technological advance and increasing productivity. Their more substantial purchases of rice can be viewed in a similar light - reducing their need to make sago, so enabling them to continue their cash cropping activities through the dry season.

In general purchasing patterns can be readily understood in terms of the requirements of the village economy. Expenditure is largely restricted to goods which have displaced their traditional counterparts or which compensate for seasonal food shortages and there is little evidence of extravagance.

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Table 10:12

Sirunki household expenditure on commodities over 46.5 weeks

Household		Subsistence produce	Rice	Meat/fish (tinned)	Other foodstuffs	Stimulants	Clothing	Other personal goods	Household goods	Torches batteries, bulbs	Cartridges	Other tools and equipment	Total
1*	$	2.34	3.80	6.73	8.87	4.36	4.44	4.16	4.72	3.20	0.80	1.44	44.96
	%	5	8	15	20	9	10	9	10	7	2	4	99
2*	$	6.60	14.40	5.17	5.40	0.10	3.00	1.40	0.20	0.20	2.10	0.70	39.35
	%	17	37	13	14	-	8	4	1	1	5	2	102
3*	$	1.00	4.00	3.40	1.76	0.84	3.85	0.44	1.64	1.70	0.40	0.30	19.33
	%	5	21	18	9	3	20	2	8	9	2	3	100
4**	$	-	-	-	-	-	-	-	-	-	-	-	-
	%	-	-	-	-	-	-	-	-	-	-	-	-
5*	$	2.20	3.80	4.34	5.03	0.70	1.34	0.20	1.58	4.46	2.05	1.44	27.34
	%	8	14	17	18	3	5	1	6	16	7	5	100
6	$	0.20	0.40	0.20	-	-	-	0.20	-	-	0.10	1.00	2.10
	%	10	19	10	-	-	-	10	-	-	5	48	102
7***	$	0.20	-	0.20	-	-	-	-	-	-	-	-	0.40
	%	50	-	50	-	-	-	-	-	-	-	-	100
8	$	1.40	0.20	0.60	-	0.84	3.60	-	0.14	0.10	-	-	6.88
	%	20	3	9	-	12	52	-	2	1	-	-	99
9*	$	0.70	6.46	7.18	5.99	6.85	3.25	1.15	5.26	0.50	0.50	0.25	38.09
	%	2	17	19	16	18	9	3	14	1	1	1	101
10	$	-	1.00	1.40	0.20	-	-	-	3.20	-	-	-	5.80
	%	-	17	24	3	-	-	-	55	-	-	-	99
11	$	-	2.14	1.94	2.03	0.78	3.70	0.30	0.24	-	0.90	-	12.23
	%	-	17	16	17	6	30	4	2	-	7	-	99
12†	$	0.40	0.40	0.48	0.40	-	0.70	0.40	-	-	-	-	2.78
	%	14	14	17	14	-	25	14	-	-	-	-	98
13*	$	1.00	6.50	2.94	2.80	0.40	2.40	0.30	-	1.80	1.30	-	18.64
	%	5	35	16	15	2	13	2	-	5	7	-	100
14	$	0.40	1.50	4.28	2.30	0.40	1.70	0.30	4.05	0.40	-	-	15.53
	%	3	10	28	15	3	11	3	26	3	-	-	102
15*	$	1.10	1.90	2.10	2.14	1.54	1.30	3.10	1.24	2.50	7.10	-	24.22
	%	5	8	9	9	6	6	13	5	10	29	-	100
Total	$	17.54	46.50	41.16	36.92	16.51	29.48	12.35	22.35	14.04	13.25	5.33	257.65
	%	7	18	16	15	6	11	5	9	5	6	2	100
Percentage: Cash croppers		7	19	13	15	7	9	5	7	6	7	2	99 ($212.93)
Non-cash croppers		6	13	20	11	4	22	4	17	1	2	2	102 ($44.72)

* Cash cropping households. ** Surveyed for 6.5 weeks only. *** Surveyed for 27.5 weeks only. † Surveyed for 11.9 weeks only.

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In the same way, there appears to be little relationship between the levels of transactions in most categories and either the rank of household heads or the total area cultivated by households. Where possibly significant differences in the rates of acquisitions and disposals appear, they are mostly explainable in terms of the various factors mentioned above. However, as regards rank, it is striking that the leading man's household is first in its rate of acquisition of most items, though only second for taro and pigmeat. It leads in acquisitions of both cash and subsistence sector services and is second in its rate of disposals of taro, bananas, pigmeat and subsistence services.

It appears, then, that high status confers both material responsibilities and benefits. The main advantage accruing to the entrepreneur seems to be that he needs to spend less time than others in gardening and the time thus saved is directed into cash-producing activities.[1] This consideration applies only to the leading man and transactions according to the other rankings do not fall into a noticeable order.

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(b) The expenditure of cash

Table 11:10 shows the pattern of purchases by each household during each recording period and over the whole survey. While there are considerable differences between households in the total value of purchases and a wide range in the proportion of cash income devoted to commodity purchases, there is less difference in the actual composition of the expenditure patterns (see Table 11:11).

For all but one household (which has a total expenditure below $3), food and stimulants account for over half of the purchases. Rice forms between 7 and 16 per cent of the total of all except the Jego'undi household, the proportion varying little over the survey. Flour on the other hand, was bought only during period II, when it formed almost one-quarter of all purchases and the proportions of tinned meat and fish in particular were reduced. The proportion formed by clothing and personal goods is also reduced at this time. All households, except the widow's, purchase flour, the amount bearing no relation to income.

None of the households containing the older people (18, 19 and 24) bought clothing, while only one (24) bought any other personal goods or tools and equipment. Apart from these, the other non-cash cropping households (20 and 22) also spend small proportions on these categories and on household goods compared with the proportions of expenditure allocated by the cash cropping households (16, 17, 21 and 23). Clothing accounts for one-quarter of the expenditure of three of the latter households.

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[1] See pp.161-2.

Table 11:10

Incomes: household expenditure patterns during each recording period
($)

Household	Subsistence	Rice	Tinned meat and fish	Bread	Flour	Other foods and stimulants	Clothing	Other personal	Household goods	Tools and equipment	Total
						Period I					
16	-	0.80	0.40	-	-	1.14	1.20	0.14	0.10	1.24	5.02
17	-	0.40	-	-	-	0.30	-	-	-	-	0.70
18	-	0.20	0.14	-	-	0.44	-	-	1.40	-	2.18
19	-	0.20	-	-	-	-	-	-	-	-	0.20
20	1.50	1.60	3.00	1.24	-	2.78	1.20	0.50	0.20	0.40	12.42
21	0.10	1.70	2.04	1.64	-	3.64	-	0.50	0.34	0.40	10.76
22	0.90	2.80	0.74	0.74	-	2.08	1.00	-	0.24	0.30	8.80
23	1.20	2.20	3.32	1.82	-	5.88	18.18	4.96	1.06	1.14	39.76
24	2.20	0.50	0.42	-	-	3.94	-	-	0.14	0.50	7.70
Sub-total	5.90	10.40	10.06	5.44	-	20.20	21.58	6.10	3.68	4.18	87.54
Per cent	7	12	11	6	-	23	25	7	4	5	100
						Period II					
16	-	0.80	0.30	0.20	1.40	1.24	-	1.60	0.12	0.50	6.16
17	-	0.60	-	0.20	2.00	0.50	-	-	0.20	0.20	3.70
18	-	0.20	-	-	-	0.10	-	-	-	-	0.30
19	-	-	0.40	-	0.70	-	-	-	-	-	1.10
20	-	0.70	0.64	0.60	4.60	2.54	-	0.20	0.04	0.30	9.62
21	-	0.80	0.60	0.40	1.40	1.30	-	-	0.10	0.20	5.00
23	0.90	1.80	1.74	1.40	1.80	5.32	1.50	0.40	5.60	4.66	25.12
24	0.10	0.60	0.14	-	0.70	1.14	-	-	-	-	2.68
Sub-total	1.00	5.50	3.82	2.80	12.60	12.34	1.50	2.20	6.06	5.86	53.68
Per cent	2	10	7	5	23	23	3	4	11	11	100
						Period III					
16	0.10	2.40	3.24	0.60	-	5.16	7.34	0.90	1.54	-	21.28
17	-	0.40	0.30	0.70	-	0.40	2.10	0.20	0.10	-	4.20
18	-	-	-	-	-	0.20	-	-	-	-	0.20
19	-	-	-	0.20	-	-	-	-	-	-	0.20
20	0.46	0.60	0.70	1.40	-	2.30	1.20	0.10	0.26	1.24	8.26
21	-	-	1.20	0.20	-	0.96	2.04	-	1.74	0.30	6.44
23	0.10	2.10	3.52	1.70	-	6.56	1.68	1.66	0.02	5.12	22.46
24	0.20	-	-	-	-	1.08	-	-	1.00	-	2.28
Sub-total	0.86	5.50	8.96	4.80	-	16.66	14.36	2.86	4.66	6.66	65.32
Per cent	1	8	14	7	-	26	22	4	7	10	100

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Table 11:11

Incnds: household expenditure on commodities over the whole survey period

Household		Subsist-ence produce	Rice	Tinned meat and fish	Bread	Flour	Other food-stuffs and stimulants	Clothing	Other personal goods	Household goods	Tools and equipment	Total
16	$	0.10	4.00	3.94	0.80	1.40	7.54	8.54	2.64	1.76	1.74	32.46
	%	0.3	12.3	12.1	2.5	4.3	23.2	26.3	8.1	5.4	5.4	99.9
17	$	-	1.40	0.30	0.90	2.00	1.20	2.10	0.20	0.30	0.20	8.60
	%	-	16.3	3.5	10.4	23.3	14.0	24.4	2.3	3.5	2.3	100.0
18	$	-	0.40	0.14	-	-	0.74	-	-	1.40	-	2.68
	%	-	14.9	5.2	-	-	-	-	-	-	-	-
19	$	-	0.20	0.40	0.20	0.70	-	-	-	-	-	1.50
	%	-	13.3	26.7	13.3	46.7	-	-	-	-	-	100.0
20	$	1.96	2.90	4.34	3.24	4.60	7.62	2.40	0.80	0.50	1.94	30.30
	%	6.5	9.6	14.3	10.7	15.2	25.1	7.9	2.6	1.7	6.4	100.0
21	$	0.10	2.50	3.84	2.24	1.40	6.10	2.04	0.50	2.38	1.10	22.20
	%	-	12.7	17.3	10.1	6.3	27.5	9.2	2.3	10.7	4.9	100.0
22	$	0.90	2.80	0.74	0.74	-	2.08	1.00	-	0.24	0.30	8.80
	%	10.2	31.8	8.4	8.4	-	23.6	11.4	-	2.7	3.4	99.9
23	$	2.20	6.10	8.58	4.92	1.80	17.76	21.36	7.02	6.68	10.92	87.34
	%	2.5	7.0	9.8	5.6	2.1	20.3	24.5	8.0	7.6	12.5	99.9
24	$	2.30	1.10	0.56	-	0.70	6.16	-	1.00	0.14	0.50	12.66
	%	19.7	8.7	4.4	-	5.5	48.7	-	7.9	1.1	3.9	99.9
Total	$	7.76	21.40	22.84	13.04	12.60	49.20	37.44	11.16	14.40	16.70	206.54
	%	4	10	11	6	6	24	18	5	7	8	100

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

511
592

Only three households bought subsistence produce in more than one recording period. The entrepreneur's purchase of Xanthosoma has been mentioned above. Areca is bought at any time of the year. Other subsistence purchases consist of smoked meat and fish from hawkers and almost always take place immediately prior to feasts if hunting has not yielded enough meat. Purchases of the major storebought foods similarly reach peaks when feasts or parties occur. Also, some purchases of items such as rice, tinned fish, bread, sugar and sweet biscuits are made every week by one or another household. Households 20, 21 and 23 are the most regular purchasers.

Household 23 accounts for 42 per cent of all purchases and therefore strongly influences the average figures for the village as a whole. Rice in particular and storebought foodstuffs in general form a lower proportion of its expenditure than of any other household, although the actual amount spent on these items is much greater. This household also disposes of storebought foods at a higher rate than any other. Household 22 disposes of storebought foods to others at a rate little below household 23 and 72 per cent of its expenditure on commodities is on storebought foods, with a further 10 per cent on subsistence foods and areca.

Figures 11:3 and 11:4 illustrate some relationships between total cash income and expenditure over the eleven months from February 1964 to January 1965. Although the sample is small and the relationships are not straightforward, it is clear that there is a tendency for expenditure on food and clothing to form a declining proportion as expenditure on all commodities rises. Items which increase in significance are household and personal goods and working equipment. As total expenditure increases, the proportion spent on goods and services declines. However, there is no apparent tendency for total expenditure (including that on services, gifts, loans, gambling, tax payments as well as purchases) to decline in proportion as income rises. As Table 11:13 shows, only one household has a cash balance over an eleven months' period of more than a few dollars. The directions of outlays over and above expenditure on commodities are shown in Table 11:14. Some of these avenues (such as payments for labour and gun and trading licences) are followed only by the entrepreneur. Tax payments are made only by the younger people, as the old and infirm are exempt, and tax payment consumed more of the income of the three households that paid it than any other item except purchasing. The head of household 22 did not pay tax and was later jailed. The other main expenditures include gambling, deposits in savings accounts and gifts and loans. Of these, gifts account for the greater proportion of expenditure.

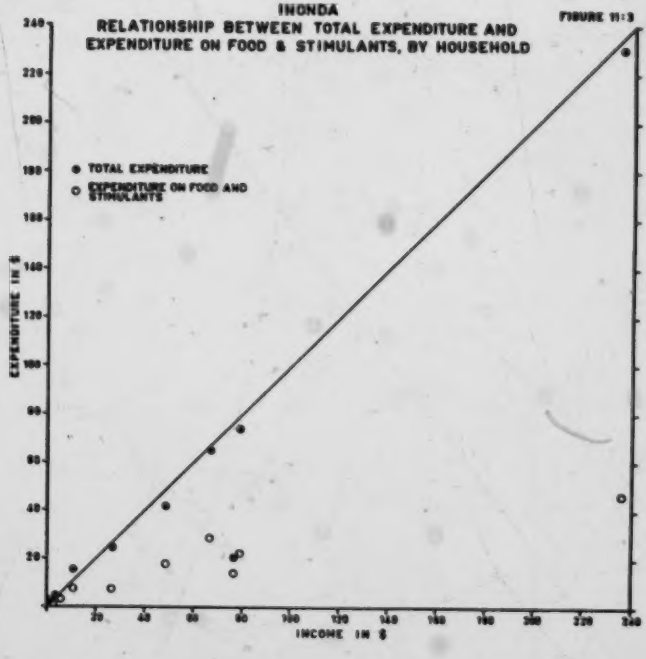
It appears, then, that of the calls on income, tax payment has first priority for most people, although food purchases come first for household 22. Food and then clothing purchases are next in

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

511
592

INONDA
RELATIONSHIP BETWEEN TOTAL EXPENDITURE AND EXPENDITURE ON FOOD & STIMULANTS, BY HOUSEHOLD

FIGURE 11:3



priority. Inonda people with incomes below $20 over the 26-week survey spent virtually all their income in purchasing (apart from tax payment). As income rises above this level, expenditure on commodities increases but people also are able to invest their money or to circulate it in the form of gifts, with the latter having greater priority. Monetary investment (whether in purchases of shares or deposits in savings accounts) usually involves larger sums than gifts which may be as small as 10c, but gifts are much more frequent and are a more characteristic element in the exchange patterns. Naturally, the higher cash income a household receives, the more it is able to dispose of in gifts as well as meeting its own material needs. As generosity in distribution is a major source

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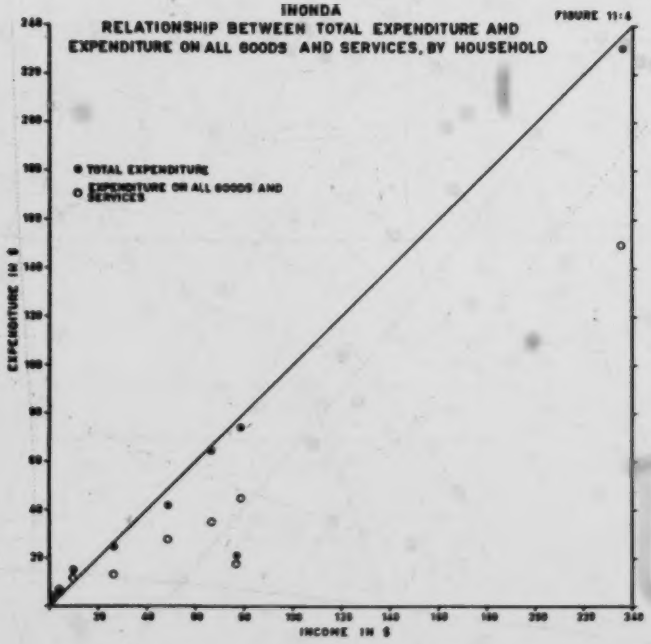
8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

511
592



of prestige, income should show a positive correlation with rankings and Table 11:12 illustrates this.[1]

556
592
[511]

Again, the relationship is not clear-cut - household 19, the widower, has a very low income but high status in certain respects, reflecting his age, his knowledge of land and personal relationships

[1] All the household heads were ranked in terms of both the people's own evaluation of their status relative to each other, and the researchers' observations on individual wealth, participation in village affairs, influence in decision-making, etc.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

592
556
434

Table 11:12

Inonde: cash income during the whole survey period and rank of households

Household	Rank	Income in $
23	1	147.72
20	2	41.44
24	3	41.30
21	3	39.40
16	4	38.50
17	4	16.40
22	4	10.60
19	2	1.50
18	4	0.50

556
592

and his generosity with his main resource, labour. Household 16 is grouped in the lowest rank although its income level is in the same order as people in the second and third ranks. A further complication is that household 24, though accorded a relatively high rank, has a comparatively low rate of expenditure, particularly in the form of gifts of either cash or storebought foods. Allowing for these factors, however, it seems that the qualities that gain respect for an individual within the traditional village sphere of operation also tend to be those that encourage the acquisition of cash.

Income and expenditure of cash over 47 weeks

434
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The figures in Table 11:13 represent current income from all sources, including withdrawals from savings accounts and all expenditure, including deposits in savings accounts. Unlike the data for other items of exchange, details of income and expenditure of cash were collected not only for the three recording periods but also for the intervening weeks. Although this subsidiary data may be rather less accurate than the rest, it has been taken into consideration in some of the tables below and thus provides a record of cash transactions over 11 months, from February 1964 to January 1965.

Table 11:13 shows the total income and expenditure of cash per household over 11 months, including the coffee season, and reveals that there is a net inflow of cash amounting to $72.96 for the village as a whole or $8.12 per household. In fact, however, both income and expenditure vary widely between households. Also, the income of households 16, 21 and 23 includes withdrawals from savings accounts and the expenditure of household 23 includes a deposit in his account. Household 23 has the highest income with $235.42, which is 43 per cent of the total for all 9 households, but its expenditure

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 11:13

Inonda: cash income and expenditure over 47 weeks, by household ($)

Household	Income	Expenditure	Net change to cash balances
16	78.62	73.84	4.78
17	26.38	24.20	2.18
18	4.30	4.90	-0.60
19	1.70	2.50	-0.80
20	66.94	64.12	2.82
21	48.60	41.56	7.04
22*	10.60	14.64	-4.04
23	235.42	230.38	5.04
24	76.90	20.36	56.54
Total	549.46	476.50	72.96
Mean per household	61.06	52.94	8.12

* Figures for February 1964 to May 1964 only.

is also highest. Income and expenditure by household 23 related to the trade store are not included in these figures. During the period, income from the store amounted to $185.20 and expenditure on supplies, at wholesale prices, to $177.58; most of this expenditure was for goods purchased on credit in the first few months of operation.

The trade store began operating on 25 October 1963. Up to 3 January 1965, total payments for supplies were $264.50 and total income from sales was $368.78, giving a gross profit of $104.28.[1] Deduction of $6 for a trading licence yields a profit of $98.28, at a rate of $7.02 per month. This rate is little more than half that earned through casual labour, but the returns per hour are very much higher (see Table 13.2), since operation of the store did not consume a very large proportion of the working day (except for journeys to Popondetta to collect supplies). Over the survey period, the average time spent daily on the store was little over one hour. The owner thus had considerable time available for other tasks, which is not true of those engaged in wage labour. Judging by the comments of the managing director of Oro Limited,[2] he is quite successful by the standards of Orokaiva-owned stores. For a period, early in 1964,

[1] Stocks remaining at 3 January 1965 were small and, in the researcher's opinion, almost worthless. They have, therefore, been written off for the purposes of this account.

[2] Personal communication.

444 it was not only the closest store for some 100 people, but it was also regularly patronised by passers-by and labourers on the main road.[1] For this reason, during the first 13 weeks of the survey sales averaged $10.70 a week, but over the whole period, from February 1964 to January 1965, the average was only $4.20.

472 434 The head of household 23 engaged in a number of other profitable entrepreneurial activities during the survey and the income from these is included in Table 11:13. He received $42 for organising the construction of the researchers' house; this sum was immediately used in the purchase of a shotgun. During period III, the same man organised a labour gang of fellow villagers to construct a shelter at the airstrip on contract from the Administration. For this, he received $72, of which he paid $36 to the other six men. At other times during the year, he received $20 for hardwood trees sold to the Administration, $4 for interpreting at polling booths during the House of Assembly elections and $10 from the Electricity Commission for locating steel pipes and oxy-acetylene cylinders abandoned in the grasslands after the war. (Two other men found and carried the pipes to the road at the entrepreneur's suggestion. They received $3 each and he received $8!) In addition to these sources not open to people with less experience and self-confidence, the same man acquired significant sums from sales of meat, coffee and copra and from gambling. Two fellow villagers gave $2 each and another gave coffee worth $3.32 as contributions towards the purchase of his shotgun. The wife's contribution to the household income was comparatively small at $6.90, of which $4 comprised remittances from kinsmen in Port Moresby.

511 About 62 per cent of this household's expenditure was in retail purchases from trade stores - one-third of this figure being represented by the shotgun and the rest mostly by food and clothing. The bulk of the other expenditure was in payments to the villagers who formed the labour gang. Eight dollars was spent on gun and trading licences and $2 on a fine for taking sago leaves without the owner's permission. Only about $12 (5 per cent) was disposed of in gifts to relatives. Overall, income exceeded expenditure by only $5.04, more than $3 below the village mean.

434 Household 24 has the greatest excess of income over expenditure with $56.54. Its gross income was $76.90, of which $32 were remittances from kin working outside the district, $10 was a teacher's pension from the Anglican mission and $10 was a belated payment from the Administration as a share of rice sales by Hohorita village co-operative society in 1949 and 1950. Seventy per cent of the household's expenditure was in trade stores and almost 10 per cent was in casual purchases from hawkers. The surplus cash was not

511

[1] See p.61.

deposited in the savings account but was kept as cash-in-hand. None of the household's expenditure was in the form of gifts; most was in impersonal transactions and the rest in commercial exchanges with village people.

Household 16 has a slightly higher income than household 24, but three times the expenditure, so that its excess of income over expenditure at January 1965 was only $4.78. The main sources of income were sales of coffee, marketing and labouring. The wife's mother received 10 per cent of the household income in the form of gifts from close kin.

Household 20 also has a comparatively high level of income and expenditure and an excess of income of only $2.82. Just over one-half was from gambling and a further one-sixth from marketing; this household has no cash crops.

Household 21, which is establishing coffee but derived no income from cash crops, has a gross income of $48.60 and an excess over expenditure of $7.04, which was the second highest in the village. This was derived from a wider range of sources and was more evenly distributed among them than the income of most other households. Over one-fifth was received in gifts, mostly from the wife's relatives, many of whom are wage earners.

Household 17 owns 107 coffee trees but sales of coffee were less important as a source of its income than labouring, even though labouring on the main road occupied only one week early in the survey and labouring on the contract gang ten days during December. Expenditure by households 16, 17, 20 and 21 was mostly on tax payment and store purchases, but 17 per cent of the expenditure of household 20 and 5 per cent of household 21 comprised gambling losses.

The remaining three households had a low level of income and an excess of expenditure for the eleven months. Household 18 received its entire income as gifts from wage earners and fellow villagers, as did household 19, apart from a small sum from the researchers. Expenditure was exclusively in purchasing, but the widower (household 19) lost $1 while washing his clothes in a stream. Household 21 was present for only the first 13 weeks of the survey. Its income was derived from labouring for a settler on the Girua block and from sales of subsistence produce to villagers. Expenditure, which exceeded income by $4.04, was mostly in trade store purchases. The household head did not pay the council tax and was later jailed for three months. After leaving Inonda, he continued to work occasionally for settlers but no details of his income were collected.

The majority of cash transactions are with organisations: this applies to expenditure even more than to income. Many of the transactions with villagers represent payments for specific goods and services that are usually related to the cash sector, such as

assistance in picking coffee, rather than to the traditional network of exchange. The relative significance of the different sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCCS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the entrepreneur account for 19 per cent of total village income. Some $43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the $16.50 received by cash croppers from wage earners within the District, $14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 11:14

Inonda: patterns of income and expenditure over 47 weeks, by cash cropping status

	Cash croppers		Non-cash croppers		Total	
No. of adults	11		10		21	
	$	%	$	%	$	%
Sources of income						
Cash crops	46.60	12	-	-	46.60	9
OCGS dividend	5.60	1	-	-	5.60	1
Subsistence produce: marketing, hawking and casual sales	45.64	12	16.30	10	61.94	11
Withdrawals from savings	26.00	7	-	-	26.00	5
Paid employment	29.40	8	26.40	17	55.80	10
Contracting and sales to Administration	106.00	27	-	-	106.00	19
Mission pension	-	-	10.00	6	10.00	2
Remittances	4.00	1	36.00	22	40.00	7
Gifts from wage earners in District	16.50	4	18.80	12	35.30	6
Other gifts, loans, and payments	48.82	13	18.50	12	67.32	12
Gambling winnings	12.26	3	34.04	21	46.30	8
Researchers	48.20	12	0.40	-	48.60	9
Total	389.02	100	160.44	100	549.46	99
Mean	35.37		16.04		26.16	
Directions of expenditure						
Trade store purchases	223.52	60	62.08	58	285.60	60
Market and hawkers	2.80	1	7.14	7	9.94	2
Deposits in savings accounts	16.00	4	-	-	16.00	3
Payment of labour	36.00	10	-	-	36.00	8
Local government council tax	36.00	10	8.00	7	44.00	9
Gambling losses	3.50	1	13.50	13	17.00	4
Administrative agencies	11.20	3	-	-	11.20	2
Gifts, loans, repayments and loss	28.60	8	14.70	14	43.30	9
Other payments for services	1.42	-	0.10	-	1.52	-
Researchers	10.94	3	1.00	1	11.94	3
Total	369.98	100	106.52	100	476.50	100
Mean	33.63		10.65		22.69	

434
516

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

summarized in Tables 7 and 8. As most income came from paid labour, coffee sales (through the Orokaiva Coffee Growers Society) and compensation payments (from the Administration) the amounts could be checked. The major items of expenditure, however, are more difficult to check and had to be compiled on the basis of detailed discussions of payments made on specific ceremonial occasions, taxation, and equipment, as well as current savings, church donations and so on. The item "food and household expenditure" is only an assessment based on people's estimates of their expenditure per pay period. A total income of £324 and expenditure of £276 during the eight-month period were accounted for as follows:

Table 7

Cash income

Income (to nearest £)

Source	£	Total	Household range	Household average
Paid work:				
Labouring	168			
Councillor	10			
Mission pension	4	182	0 - 41	23
Produce:				
Vegetables	5			
Pig meat	25			
Coffee	17	47	0 - 26	6
Traditional:				
Bride-price	15			
Gifts of money	8			
Feast donations	6	29	0 - 15	4
Miscellaneous:				
Gambling profits	2			
Compensation(1)	64	66	0 - 34	8
Total		324	3 - 72	41
Plus savings from previous year		83	0 - 29	10
		407	3 - 93	51

(1) This was compensation paid by the Administration for coffee trees removed to widen a road.

Table 8

Expenditure

Expenditure (to nearest £)

Item	£	Total	Household range	Household average
Domestic:				
Food and household	141			
Clothing	26			
Utensils	14	181	3 - 35	23
Capital:				
Equipment	2			
Housing	-	2	0 - 2	-
Traditional:				
Bride-price	57			
Other gifts	12	69	0 - 20	8
Miscellaneous:				
Church donations	2			
Tax (to council)	22	24	0 - 9	3
Total		276	3 - 65	34
Plus savings in hand now		97	0 - 30	12
		373	3 - 95	47

It will be noted that income per household averaged £41 for the eight months period and may be projected as £62 per household per annum or £11 per capita per annum. Only 14% (£47) of the total income was derived from primary production and less than half of this from cash crops. Very little of the income listed comes from within the village. All money derived from work and the sale of produce comes from elsewhere, and from persons or institutions with whom the Inonda people have no relationship other than the contractual one through which they derive income. All the income listed as "traditional" came from persons with whom the Inonda people had kinship or other social relations. Of the £15 in bride-price £8 came from resi-

dents of the village and £7 from non-resident kin. Of the gifts of money £3 came from resident kin and the balance from kin living elsewhere. The feast donations (with the exception of a few shillings) were given by non-residents, some of whom were kin, but most of whom were acquaintances living within a radius of several miles.

Food and household costs constitute the major item of expenditure, but a considerable proportion of the imported food is purchased for funerals, feasts and the entertainment of visitors. Part of the food costs may therefore be considered as costs of meeting social obligations. Within the local community, money is distributed through domestic obligations to provide for visitors and kin, and also through ceremonial (usually related to life crises) when cash and other property are exchanged. Probably the greatest cause for its circulation within the community, however, is gambling. Men who are earning wages usually gamble at least once a week and from observation of several games it seems that each player brings from 3/- to £1/-/- or more. Although the winner for the evening usually gives back a token sum to each loser, he retains most of the money himself. It is understood that gambling is widespread in the area.

Seven of the eight families had some cash in hand (we have shown this as "savings" though it was not necessarily specifically set aside as savings). The councillor looked after his own money, most of which he kept in a savings bank account. Only one other man had a savings account, and in it he held both his own and his son-in-law's money. The son-in-law felt reluctant to ask for money from the account except to meet social obligations. Two half-brothers (one married and the other single) gave most of their money to their father who seems to have made the decisions about expenditure for the extended family as a whole. The two other men in the village were responsible for looking after their own savings. As with non-monetary valuables, cash and bank books are usually cared for by women, but they have little or no say in the purposes for which the money is spent.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available to a limited extent at a rate of £150 per year in town areas and about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

[464]
[465]

411 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the Department of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

[654]
[474]

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

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[466]
[511]

(1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

511 177 Capital goods, though few, should be briefly mentioned. Apart from a house and his clothing, the average man owns very little. The sum of his possessions make a very small pile: a bush knife and two or three implements, some kitchen utensils, a small box of feathers and ornaments, usually carefully locked, perhaps a few dollars of savings, and--in both Inonda and Sivepe--an interest in a coffee-hulling machine presented by an anthropologist. About half the people have a storm lantern; two Sivepe men had a pressure lamp, lit on weighty occasions only. With the exception of the valuables, these capital goods are innovations; at the time of the eruption people had far fewer, and these were mostly acquired after the second world war or from American soldiers.

433 433 Comparing the development of Sivepe and Inonda over the last 15 years, we note several significant differences in the exploitation of resources: Sivepe, but not Inonda, has rapidly expanded its coffee production in the 1960's; Sivepe but not Inonda is deriving a significant cash income from "looking after" the wives of migrants. I have referred to several other differences, but these seem to me the most significant, as they do not appear to me to follow directly from ecological differences.

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the
information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
[464] in village life. It was earned by men who were away for limited
periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
511 the subsistence sphere. Money was essential for payment of taxes
and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
459 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

8: Waddell & Krinks OJ23 Orokaiva OJ23

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[For information on routine patterns of activities related directly to the economy, see Category 461.]

man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

The adult residents of Sivepe are active, on average, 40.6 hours per man-week, although, as Fig.6:2 demonstrates, there is a substantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

512.241 Wed

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

SIVEPE

WEEKLY PATTERN OF ACTIVITY - ALL ACTIVITIES AND SELECTED GROUPS

FIGURE 9:2

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during [461] [262] [251] 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[221] New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

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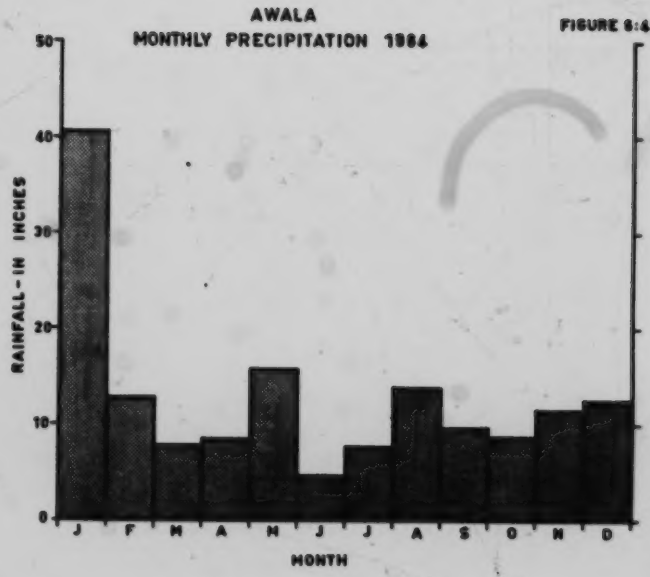

FIGURE 8:4

much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ins, pitpit, bananas, sugar-cane, arecs, coconuts and breadfruit are the major items in this category.

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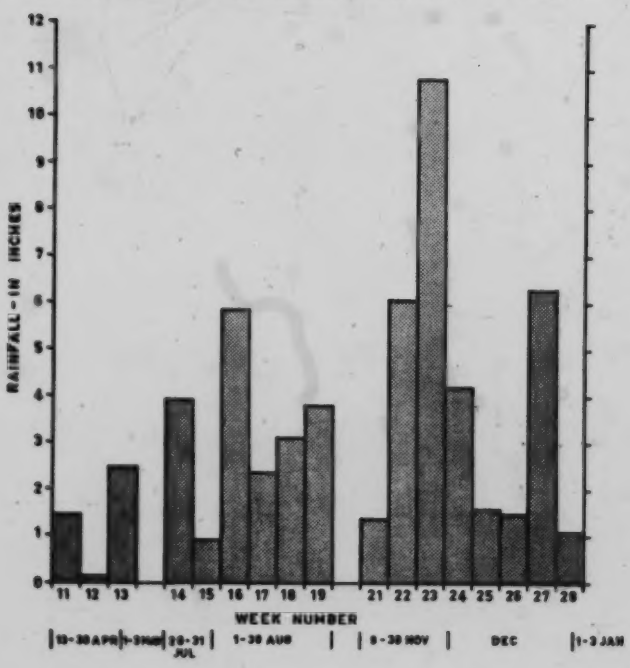
SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 28 ONLY) FIGURE 6:5



512 433 124 [22] Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Table 6:4

Sivopa: mean time spent per man-week on all activities in each recording period (hours per man-week)

Group	Activity		Period I	Period II	Period III	Survey
Clearing			4.4	2.4	3.3	3.7
Subsistence gardening	Fencing		-	-	0.2	<0.1
	Taro	- plant	1.9	2.8	3.0	2.4
		maintain	3.0	3.9	4.5	3.6
		harvest	3.4	1.9	3.0	3.0
		market	0.1	-	-	<0.1
	Sweet potato	- plant	-	-	<0.1	-
		harvest	0.7	1.1	2.4	1.3
		market	0.1	-	-	<0.1
	Yam	- plant	0.6	-	-	0.3
		maintain	-	-	0.2	<0.1
		harvest	0.8	0.1	0.6	0.6
	Minor crops	- plant	-	0.1	<0.1	<0.1
		maintain	-	-	0.1	-
		harvest	1.0	3.4	1.1	1.5
		market	<0.1	-	0.2	<0.1
	Total		11.8	13.5	19.6	13.2
Other subsistence food production	Fishing		0.2	-	0.5	0.2
	Hunting		0.7	0.8	4.8	1.8
	Sago-making		-	1.3	0.4	0.4
	Total		1.0	2.3	5.7	2.5
Other subsistence activities	Preparation of tools and equipment		0.3	-	0.5	0.3
	Construction		2.2	1.6	0.6	1.6
	Total		2.5	1.6	1.1	1.9
Household	Washing		<0.1	0.2	0.3	0.2
	Cooking		4.8	4.6	5.1	4.8
	Collecting firewood		0.2	0.5	0.3	0.3
	Total		5.1	5.4	5.7	5.3
Social obligations	Marriage		-	0.2	-	-
	Death		-	-	-	-
	Other		1.7	0.9	0.2	1.1
	Visiting		0.8	0.7	1.7	1.0
	Total		2.5	1.8	1.9	2.1
			2.8	2.8	3.2	3.4
Cash cropping	Coffee	- maintain	0.2	-	-	0.1
		harvest	0.9	0.2	-	0.5
		process	1.0	0.3	-	0.6
		market	-	0.5	-	0.1
	Rubber	- harvest	0.1	<0.1	0.5	0.2
		market	-	-	0.1	-
	Total		2.2	1.1	0.7	1.5
Paid work			2.0	1.2	1.0	1.6
Sick	Personal		0.3	0.2	1.2	0.6
	Care of sick		0.3	0.2	0.2	0.2
	Total		0.6	0.4	1.4	0.9
External agencies	Purchasing		0.7	0.4	0.7	0.4
	Council work		0.9	1.8	1.0	1.2
	Meetings		1.3	0.5	1.8	1.3
	Church work		0.3	0.5	0.1	0.2
	Church services		3.1	3.7	1.7	2.7
	Total		5.9	6.7	4.8	5.8
Miscellaneous	Recreation		0.1	0.4	0.4	0.3
	Other		0.1	-	1.1	0.4
	Researchers		0.2	-	0.2	0.2
	Total		0.4	0.5	1.7	0.8
Total - all groups			40.0	37.5	44.2	40.6

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive utilisation of the forest has greatly reduced its plant and animal [512] resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 223 dry weather.
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Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week were spent on it, rising to 6.4 hours in week 16 when only taro [512] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the [461] flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

252 gardens. If absolutely necessary it will be made without outside assistance, such being the case with one household with inadequate [461] food supplies in its gardens in period III because the head had been absent for several weeks earlier in the year.

241 (ii) Seasonality and the pattern of subsistence food production. While no significant 'dry season' occurred during 1964, the data [262] gathered suggest that the cycle of agricultural activities is partly designed to allow for a dry spell at mid-year. During period II little taro or yam were producing and breadfruit and sago replaced these as the major contributors of carbohydrate to the diet. Yet an agricultural system which is characterised by a period of food scarcity was disrupted by unseasonally wet weather. Heavy rains deterred people from carrying out routine garden tasks, including food gathering, and probably accounted for the postponement of sago-making. On a number of nights during this period evening meals were not prepared because of rain and individual families went to bed hungry.

433 (iii) Marketing of subsistence produce. This is only a minor activity amounting to 0.3 hours per man-week. Food crops may be 512 sold either at the weekly market at Saiho hospital or exchanged for trade goods at Sasembata mission station, but their rates are so low that there is no systematic production of food crops for sale [432] to these bodies.[1] Although more favourable prices probably obtain at Popondetta market, distance and lack of transport preclude the Sivepe people from selling there.

(iv) Other subsistence activities. Other subsistence activities comprise the preparation of tools and equipment and house construction. Handicraft work only accounts for 0.3 hours per man-week and primarily involves the preparation of axe handles, spears, traps and nets for hunting, troughs for fermenting coffee, a variety of mats and bags made from woven palm leaves, and various decorative items of a ceremonial nature.[2]

While mats and bags are made throughout the year, the other tasks are largely related to seasonal and specialised needs, the peak (0.5 hours per man-week) occurring in period III with the preparation of hunting equipment and ceremonial dress for the Christmas festivities.

Forty per cent of the time spent in the preparation of tools and equipment is taken up by ceremonial goods, 25 per cent by woven baskets and mats, and 20 per cent by traps, nets and spears for

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[1] See p.20.A

[462] [2] String bags have been excluded on the grounds that, although probably the most important piece of equipment, the women usually make them in the course of doing household tasks.

A.[See Category 436, p.20--Analyst]

433 hunting. The little time devoted to the preparation of tools for
●512 the main subsistence enterprises reflects the degree of technological substitution which has occurred since contact.

Construction and repair of houses normally continues throughout the year, here occupying 1.6 hours per man-week. In Sivepe such activity declined during the course of the survey as plans were formulated to transfer the village to the new site. Of 13 houses whose occupants were not newcomers to the village, 4 were completely rebuilt during the year and, in addition, 2 completely new houses were built and a number of extensions and repairs made to others. This 'crude birth rate' suggests the life of a house to be about [342] 3.25 years. Since each house takes about 110 man-hours to build (including the gathering of materials), about 0.6 hours per man-week must be devoted to reconstruction in a normal year. In Sivepe about 0.9 hours were devoted as a result of additional houses being built, the balance (0.7 hours) accounting for repairs and minor extensions.

[252] Household tasks occupy 5.3 hours per man-week, cooking predominat-
[462] ing with 5.0 hours. Of necessity, they vary little through the year.[1] Much of the time taken up by cooking involves simply tend-
[372] ing the fire on which the food is being prepared and it is then that the women often work on their string bags. Most firewood is obtained as a by-product of clearing, suitable lengths of timber being stacked in the garden to dry out and then carried to the village as required.

All the above subsistence activities (food production, construction, handicraft work and household tasks) can be described as 'productive' in that 'the purposeful alteration and combination of physical material' (Udy 1959:2) can be discerned in them. Together they account for 26.6 out of the total of 30 hours per man-week devoted to the subsistence sector of the economy.

512 Only 3.4 hours per man-week are spent in fulfilling social
182 obligations. Although categorised here as non-productive activity, it should be stressed that ritual and informal social interaction are part of the fabric of the total economic system and the kinship networks which form the framework for these interactions serve as the major mechanism for distributing goods produced within the subsistence economy.

171 Belshaw, in discussing Melanesian exchange, states (1965:35):
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> A primary point to note is that a very high proportion of social contacts between adults is accompanied by gift-giving.

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[1] The figure for cooking in period I is an estimate, derived from averaging the figures for the following periods, since relevant records were not initially kept.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

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In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

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The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

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The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

461 [464] Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 177 [797] (iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] [651] The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

512 [75] [164] Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433 Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaivа involvement in the external economy.

592 461 <u>The organisation of work by households</u>

Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887] At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

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of individual circumstances rather than degrees of specialisation. While cash cropping households are clearly more active than the others, the substantially greater time they devote to the external sector accounts for the differential and they are no less active within the subsistence sector than their non-cash cropping counterparts. This is clearly demonstrated if household 12 is excluded from the calculations.

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Table 6:6

Sivepe: contrasting activity patterns of cash cropping and non-cash cropping households*
(hours per man-week)

	Subsistence sector		External sector		
	'productive'	'non-productive'	'productive'	'non-productive'	Total
Mean	26.7	3.4	2.5	7.5	40.1
Cash croppers	26.9	3.3	3.3	8.8	42.3
Non-cash croppers	26.7	3.5	1.2	4.9	36.3

* Household 12 excluded.

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The division of labour

(1) By sex. Although there is little variation in length of activity week between the sexes, the men distribute their time more evenly through a broader range than the women who tend to confine their attention to a few specific tasks (see Fig.6:7). Sixty-one per cent of the women's time is devoted to subsistence gardening and household tasks compared with only 29 per cent for the men; however, the latter give substantially more attention to clearing, other subsistence food production and other subsistence activities than the women (11.5, 10.9 and 8.6 per cent respectively compared with 6.7, 1.6 and 1.1 per cent) while retaining subsistence gardening as quantitatively the most important of their grouped activities. Consequently the broad allocation of time between subsistence and external, productive and non-productive activities does not differ substantially for the two sexes; the men spend 69.8 per cent of their time on productive activities and 70.3 per cent on subsistence and the women 76.3 per cent and 77.0 per cent respectively. Rather it is a matter of the women concerning themselves essentially with the daily routine of harvesting and preparing the staple foods for consumption while the men turn to the more irregular, and frequently more arduous tasks such as house construction, hunting and sago-making. In part, no doubt, this pattern reflects the formal authority structure in the household in that the men delegate responsibility for meeting routine needs to the women while they

[TEXT CONTINUED ON PAGE 100]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

462
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461

Table 4:7

Sivupi: the division of labour by sex

	Men	Women
Total hours active	13,934	15,041
Total weeks present	349.7	363.1
Mean activity week	39.8	41.4

Activity	Total hours	Percentage contribution*
Men		**Men**
Rubber - harvest	137.4	100
Recreation	194.7	97
Hunting	1,289.3	93
Preparation of tools and equipment	198.1	91
Church work	182.0	88
Construction	1,160.5	87
Coffee - market	77.9	85
Other crops - plant	41.8	84
Sago-making	319.7	81
Yams - plant	226.4	81
maintain	45.3	79
Purchasing	273.6	77
Taro - plant	1,714.9	75
Social obligations - other	732.7	73
Women		**Women**
Sweet potato/yam - market	51.2	100
Cooking	3,442.0	97
Sweet potato - harvest	900.2	92
Care of the sick	172.5	90
Taro - market	54.3	90
harvest	2,133.4	87
Washing	117.5	75
Both		**Men**
Rubber - market	36.1	86
Fencing	45.7	84
Coffee - harvest	353.1	82
Miscellaneous	260.6	82
Clearing	2,614.7	81
Coffee - maintain	74.5	80
Social obligations - marriage	32.7	80
visiting	873.9	56
Paid work	1,178.8	54
Other crops - harvest	1,109.0	54
Sick - personal	442.6	53
Yam - harvest	412.6	53
Coffee - process	398.4	53
Collecting firewood	234.1	52
Social obligations - mourning	783.9	51
Other crops - market	66.9	51
Church services	1,946.2	46
Meetings	898.7	46
Fishing	143.0	44
Council work	824.2	42
Taro - maintain	2,331.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

462
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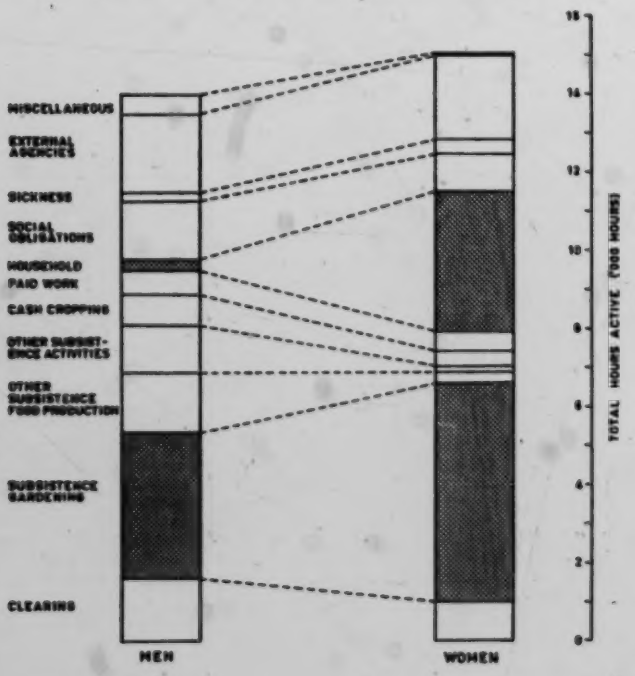
concern themselves with the prediction of future needs, or with the catastrophic aspects of the food cycle, and therefore with activities directed towards fulfilling these.

So, at the level of specific tasks, a clearer division of labour emerges, although even here there are few important activities exclusively the concern of one sex as Table 6:7 demonstrates. While subsistence gardening is largely the women's concern two tasks

SIVEPE
DISTRIBUTION OF TOTAL ACTIVITY TIME BY SEX FIGURE 6:7



predominate - the maintenance and harvesting of taro - which together account for 22.9 per cent of their activity time. Men do most planting of taro and are primarily concerned with the cultivation (including harvesting) of both yams and the minor crops. The labour of harvesting yams is shared with the women, although the men direct the operation since yams are a food crop of considerable social and economic importance, and are stored against future needs. Many of the minor crops are tree crops - areca, coconut, breadfruit, etc. - and the fact that men are more adept at harvesting them largely accounts for their greater involvement.

Clearing, although both arduous and designed to cater for long-term food requirements, is something of an anomaly in that only 61 per cent of the time expended is contributed by men. However, the women's role is subsidiary, the men being responsible only for the initial clearing and burning, and the women cleaning up the debris and piling it around tree stumps to burn again.

The fact that most marketing of subsistence crops is done by women may be viewed as a logical extension of their gardening activities. The few marketed by men - areca, tobacco, etc. - are considered male crops and a woman would not normally harvest them. But contrast, the marketing of cash crops is dominately a male concern, with the women contributing to the harvesting and processing of coffee on account of its very high labour requirements.

The single most time-consuming activity carried out by either sex is cooking, accounting for 22.1 per cent of the women's activity time. Ninety-seven per cent of all cooking is done by women, the only exceptions being the preparation of meat at feasts or for 'marketing'.

With the exception of parties which mainly attract the young men, both sexes are involved to much the same degree with social obligations and likewise there is little distinction according to sex in connection with the external agencies. Finally, care of the sick concerns women more than men only because it is they who take children to the infant welfare clinics.

(ii) By age. While there is not, strictly speaking, any division of labour according to age, there are significant variations in both the general level of activity and allocation of time. These patterns reflect both the customarily defined responsibilities of the several age groups and their diverging interests in the contact situation. Table 6:8 shows the oldest and youngest age groups to be the least active. The reasons for this need no elaboration. The limited involvement of young people in village life gives them time and opportunity for other pursuits: for the 15 to 24 years age group temporary absences accounted for 10.3 per cent of survey time and 6.5 hours per man-week were spent in paid work, but only 7.9 hours in subsistence gardening, the dominant activity of all other age groups.

The one age group not considered in the survey is children. Customarily the parents delegate various tasks to them as they get older, but the current picture is somewhat complicated by the fact that over 80 per cent of all children in the area receive at least a few years' primary schooling. Since the type of education provided has little direct bearing on village life or economy it is not uncommon for such children to profess some disdain for village tasks and the extent to which they assist their elders frequently depends upon the degree of parental authority. Children up to the age of about ten years normally play around the village in the morning and evening, going down to the creek during the hottest part of the day, when they might do a little fishing. If they accompany their parents to the garden they are left in the garden shelter or under the shade of a tree and the older ones are directed to look after the younger. Otherwise the only jobs they appear to do regularly are fetching water and tending the fire, although the older girls are given such household tasks as washing dishes and also attending to infants. Boys over the age of about ten years may hunt, build traps in the forest and do some of the more hazardous jobs like scaling trees for green coconuts, while both they and the girls are called upon to assist in pulping coffee. For those attending school, most of these activities are restricted to the weekends and holidays; even then they may resist their parents' requests for assistance, preferring instead to do a little hunting or fishing for their own amusement or to picnic together.

561 [871] 857

The weekly pattern, daily routine and duration of activities

It is customary for ethnographic surveys to devote a section to the description of a typical working day and, in its treatment of the Orokaiva, Williams' account (1930:21-31) is no exception. What he considers to be a normal routine comprises an early breakfast from the cold remnants of the previous evening's meal followed by the departure of family groups to their gardens where they pursue their various tasks. By noon these are completed and most families are back in the village to rest in their houses for an hour or two. 'The real activity of the village commences at about three o'clock' with the preparation of the evening meal by the women, the men meanwhile restricting themselves to sedentary tasks or conversation. This is eaten near nightfall and a period of conversation or informal entertainment follows until everybody retires to sleep. Such a routine may be modified by climate, ceremonial activities and the occasional demands of the Administration and recruiters.

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Regardless of whether the daily routine in the 1920s fully conformed to Williams' description, the present pattern is substantially different, not only for those activities which are directly related to the increased commercialisation of the economy and interaction

512 178

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepa people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [796] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

Table 4:9

Sivese: the weekly pattern of activities
(hours per man-day)

Ideal allocation	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Cash crops	Cash crops	Mission work	Subsistence	Council work	Subsistence	Church and rest
Total man-days	714	716	717	716	708	707	712
Clearing	0.8	0.6	0.6	0.6	0.3	0.7	0.1
Subsistence gardening - plant, maintain	1.1	1.1	1.0	1.0	0.6	1.2	0.4
- harvest	0.9	1.0	0.8	0.9	0.8	1.1	0.9
Fishing, hunting, gathering	0.2	0.3	0.3	0.4	0.2	0.4	0.2
Sago-making	<0.1	0.1	0.1	<0.1	-	-	-
Other subsistence activities	0.2	0.2	0.3	0.3	0.3	0.2	0.4
Household	0.6	0.9	0.7	0.8	0.8	0.7	0.8
Social obligations	0.5	0.3	0.2	0.2	0.8	0.7	0.6
Cash cropping	0.2	0.2	0.3	0.2	0.3	0.2	0.1
Paid work	0.3	0.2	0.3	0.2	0.3	0.1	<0.1
Marketing - subsistence crops	-	-	-	0.2	-	-	-
Council work	0.2	<0.1	0.2	0.2	0.4	-	-
Church work	<0.1	-	0.2	-	-	-	-
Church services	0.3	<0.1	0.2	-	0.3	0.2	1.6
Other external agencies	0.3	<0.1	0.3	0.2	0.5	0.2	-
Sickness	<0.1	0.2	0.2	0.1	0.2	<0.1	-
Miscellaneous	0.1	0.1	<0.1	0.2	0.1	-	0.2
Total	6.1	5.8	5.6	5.7	6.0	6.0	5.6

194 512

81 Waddell & Krinks E-4,5 (1964-1965) 1968 0723 Orokaiva 0723

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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 13 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 5.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivepe is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

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One of the stated aims behind Sivepe's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 109]

461
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Table 4:10

Rivers: the mean duration and mid-point of activities
(hours)

Activity		Duration	Standard deviation	Time of mid-point	Standard deviation
Clearing		5.2	2.2	1210	1.6
Fencing		3.4	2.0	1055	1.7
Taro	- plant	3.6	2.0	1152	2.4
	maintain	3.6	2.0	1201	1.9
	harvest	2.5	1.4	1253	2.0
	market	6.0	2.2	0930	0.5
Sweet potato	- plant	2.3	1.4	1234	2.9
	maintain	1.9	0.8	1053	0.4
	harvest	2.6	1.3	1253	1.8
	market	6.4	2.1	1041	2.7
Yam	- plant	3.2	2.3	1135	0.9
	maintain	3.8	1.7	1321	2.6
	harvest	4.4	2.4	1218	1.7
	market	5.3	-	1115	-
Minor crops	- plant	1.4	1.3	1404	2.8
	maintain	2.3	2.0	1349	2.6
	harvest	2.0	1.6	1302	2.5
	market	5.5	2.1	1048	2.7
Fishing		3.8	1.5	1201	3.9
Hunting		4.2	2.5	1355	4.3
Gathering		1.8	1.9	1410	3.5
Rope-making		7.7	3.1	1256	1.5
Preparation of tools and equipment		2.2	2.1	1307	3.7
Construction		3.9	2.9	1153	2.9
Coffee	- plant	2.8	0.5	1530	0.8
	maintain	4.1	1.1	1108	0.6
	harvest	4.1	2.2	1221	2.2
	process	2.6	1.6	0941	2.1
	market	9.7	1.2	1215	0.4
Cocoa	- plant	2.0	0.8	0945	2.3
	maintain	0.8	-	-	-
Rubber	- plant	4.3	1.5	1145	-
	harvest	2.4	1.1	0838	1.5
	market	5.1	1.5	1100	0.2
Paid work		8.3	2.8	1149	1.2
Washing		0.7	0.5	1047	2.4
Cooking		1.6	0.9	1516	2.8
Collecting firewood		1.2	0.9	1407	2.8
Social obligations					
	- marriage	2.7	0.4	1343	0.1
	death	7.6	4.4	1505	7.2
	other	4.7	2.2	1505	4.2
	visits	4.1	3.6	1336	3.3
Sick	- personal	2.8	2.5	1040	1.8
	care of	1.9	0.9	1001	1.7
Purchasing		4.7	3.2	1253	2.7
Council work		1.4	2.0	0920	2.7
Meetings		5.1	3.0	1200	2.2
Church work		5.3	1.7	1122	1.0
Church services		3.5	2.4	1001	3.0
Recreation		3.7	2.3	1532	4.2
Other		4.7	3.4	1200	2.7
Researchers		4.6	3.4	1301	2.5

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Table 6:14 illustrates the main features of the activity patterns of the six individuals. Linton devotes a large amount of time to such minor activities as hunting (81 per cent of other subsistence food production) and construction (84 per cent of other subsistence activities), the latter mainly on improvements and repairs to his house rather than major rebuilding. Mourning accounted for 6% per cent of the 4.3 hours spent on social obligations, an unusually high figure even for older people and a reflection of his allegiance to customary forms of behaviour.[1]

Table 6:14

Sivopa: activity patterns of selected individuals
(hours per man-week)

Name	Cash croppers				Non-cash croppers	
	Linton	Palmimas	Gorukari	Olga	Rodney Gill	Umbahapa
No. of weeks present	38.0	24.4	38.7	38.7	22.1	26.6
Percentage of survey days temporarily absent	7.4	9.5	1.1	1.1	17.9	1.5
Subsistence						
i. Productive						
Clearing	4.0	4.3	3.5	2.7	3.0	6.3
Subsistence gardening	13.7	15.3	17.9	18.7	2.5	12.5
Other subsistence food production	8.0	9.1	1.4	0.3	5.2	1.2
Other subsistence activities	5.1	2.3	0.5	0.2	3.1	2.9
Household	0.9	1.0	12.5	13.0	0.4	0.5
ii. Non-productive						
Social obligations	4.3	5.9	3.1	3.1	6.9	1.9
Exomal						
i. Productive						
Cash cropping	3.1	5.9	1.7	1.3	0.4	-
Paid work	4.4	-	-	-	8.6	-
ii. Non-productive						
Exomal agencies	7.2	5.6	6.4	5.9	6.0	3.3
Sickness	0.8	0.9	1.4	0.5	1.3	0.7
Other	1.4	0.7	0.6	-	6.4	-
Total	42.9	51.0	49.0	45.8	43.7	29.4
Percentage of total time spent in						
Productive activities	74	74	76	79	53	80
Subsistence activities	69	74	79	83	48	86

[762]

1 During the year an age-mate from Soho clan committed suicide in Port Moresby and Linton acted as one of the chief mourners.

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The 7.5 hours spent by Linton in cash-producing activities far exceeds the sample average and the extent of his commercial interests is reflected in his household having the largest monetary assets of the eleven surveyed and the fourth highest cash income;[1] 3.1 hours were devoted to cash cropping, almost exclusively to coffee, and 4.4 hours to paid work. The latter, building the house for Saiho hospital, was confined entirely to period III and so outside the cash cropping season. He, and another member of the sample, had to provide all materials and on completion of the house would be paid $50; however, it was still unfinished at the end of the survey. Opportunities of this type often occur and in spite of the distance to Saiho and the need to supply their own building materials, the informal nature of the contract and being able to reside in the village throughout more than compensate and account for the popularity of the work, particularly outside the cash cropping season.

Linton's concern with cash producing activities is paralleled by his involvement with the external agencies. Over half of the 7.2 hours per week is spent at church services, in maintenance work on the mission station and in helping the Papuan priest with his food gardens. In fact, proportionately, Linton devotes no more time to productive tasks than the sample as a whole does although he was absent from the village on only 7.4 per cent of survey days, each occasion being of short duration.

[177]

Palminus. Like Linton, Palminus is a married man with five children, all at or below school age. A confirmed cash cropper with the largest individual holding of coffee in the sample (246 trees), he is also one of the 'new' generation with a firm liking for non-traditional forms of entertainment, including gambling, guitar music, parties and alcohol. Aged 34 years, he received four years' schooling and has spent a further four and a half years in unskilled and semi-skilled employment in Port Moresby, Keremа and elsewhere in the Northern District.

With a mean activity week of 51.0 hours Palminus is only slightly less busy than Linton. The general pattern in which this time is allocated approximates that of the sample as a whole, with a consistently higher level of activity being recorded in most categories.

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1 See Tables 4:5 and 10:10.

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Although without access to a shotgun, Palminus spends even more time in hunting than Linton (98 per cent of the 9.1 hours devoted to other subsistence food production). Guitar parties account for over half the time spent on social obligations and, while they normally appeal primarily to unattached youths, Palminus is attracted to them by the liquor (including beer, gin, rum and methylated spirits) often on sale.

The time spent in coffee production, 5.9 hours per week, is a particularly high figure when it is considered that this work was confined to little more than one-third of the total survey period. When, during the latter part of the dry season, Palminus had completed harvesting his own coffee he agreed to pick in the garden of a member of Seho clan. Although he did no paid work while resident in the village, over half of the 9.8 per cent of survey days on which he was absent was spent at Sangara constructing a house for a settler, with a view to receiving a cash payment for it at the end.

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Gorukari. Gorukari is aged 32 years and a married woman with five children, all under the age of 12 years. The two eldest attend Sasembata school, one, a six year old, refuses to go, and the others are below school age, one being still at the breast. Although she received a few months' schooling at Sasembata, her experience of Western culture is slight and in this respect she is typical of the women. Her husband is not unlike Palminus in that he is industrious, interested in cash cropping but not a particularly influential person.

On account of the size of her family and age of her children, Gorukari has a heavy burden of basic subsistence gardening and household tasks and while her eldest daughter, aged 11 years, could be of considerable assistance, regular attendance at school prevents this. In addition, Gorukari's domestic obligations often extend to the care of her husband's father and mother plus two children who reside next door. The father is over 55 years and the mother only a little younger and both are frequently sick.[1]

With a mean activity week of 49.0 hours, 62 per cent of her time is spent on subsistence gardening and household tasks, taro gardening predominating in the former and cooking in the latter. This figure contrasts with the sample mean of 46 per cent of total

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1 He was sick, or absent through sickness, on 30 per cent of potential survey days and she on 26 per cent.

time. In effect Gorukari is concerned essentially with producing and preparing for consumption the staple food, taro.

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The figure of 49.0 hours per week is somewhat misleading in the case of such a woman where so much time is taken up with care of children and minor household tasks which do not lend themselves to quantitative analysis. In following her movements through a single day it was found that, between rising at 0810 and finishing the evening meal at 1845, Gorukari spent only 1 hour 50 min. actually resting or eating. She was therefore active for a total of 10.8 hours compared with an 'activity' figure of 8.1 hours. From 1845 until 2220, when she retired, she sat and talked with her husband. Assuming this to have been a typical day, a woman such as Gorukari has an activity week of about 75 hours.

Social obligations account for 3.1 hours per week, 56 per cent spent in visiting. Not only is this substantially less than the figures for Linton and Palmimus but it reflects a somewhat different emphasis. While the role of women in ceremonial life is subsidiary to that of the men, they are often responsible for the more informal exchanges which are a characteristic feature of Orokaiva life and, since the society is typically a patrivirilocal one, it is to be expected that the women spend a significant amount of time visiting their kin.

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Gorukari's primary concern with food gardening and household tasks is expressed in the general distribution of her time. In particular she is more concerned with subsistence activities than the sample in general, these accounting for 79 per cent of her total activity time, while she also places greater stress on productive tasks. These facts are manifested in both the infrequency and short duration of her absences from the village which amount to only 1.1 per cent of potential survey days.

Oiga. Oiga is aged about 46 years and the wife of the most progressive of the older generation - a man with extensive non-traditional experience. They have eight children, the eldest of whom resides, with his family, next door. The two youngest, girls aged 10 and 14 years, attend Sasembata school and still live at home. All but one of the other children are married and normally reside elsewhere.

Subsistence gardening and household tasks dominate Oiga's activities to an even greater extent than they do Gorukari's, accounting for 89 per cent of total time in an activity

512 461 week of 45.8 hours. Likewise 68 per cent of the 18.7 hours spent in subsistence gardening is confined to taro cultivation and 99 per cent of the 13.0 hours on household tasks to cooking. Apart from clearing, in which women are responsible for 'sweeping' up the debris and much of the secondary burning, the time Olga devotes to the other productive subsistence activities is minimal.

Sixty-four per cent of the time spent on social obligations comprises visiting, an even greater proportion than for Gorukari although Olga did not change her place of residence at marriage.[1] One of her married daughters lives in a village about half an hour's walk away and, with her husband away in the police force in Port Moresby, there is a great deal of inter-visiting.

Although without cash crops of his own, Olga's husband worked some coffee belonging to their eldest son during the year, the son in turn confining his cash cropping to the rubber. Olga assisted her husband largely in pulping and drying the parchment and in its subsequent marketing. However, her involvement with the external sector of the economy is largely confined to the external agencies, particularly the church. On account of her household responsibilities she is seldom away from the village for more than a night or two at a time, while the emphasis placed on subsistence activities (83 per cent of her total activity time) results in both her and Gorukari's spending more time on them than either Linton or Palminus, in spite of the latter having longer activity weeks. Finally Olga spends less time on non-productive tasks - only 21 per cent compared with 36 per cent in the case of the two men.

Rodney Gill. Rodney Gill is Gorukari's husband's brother and, at the age of 18 years, the eldest child still residing with his parents. While both parents are often disabled through sickness and rely on the support of Gorukari and her husband, Rodney Gill's behaviour pattern does not suggest any tendency to assume domestic responsibilities. With a mean activity week of 43.7 hours he spends only 48 per cent of his time in subsistence activities and 53 per cent in productive work. Typically, adolescent aspirations are directed to wage employment and many young men leave the village. Of the six males in the 15 to 19 age group at the beginning of the year, one joined DASF at Popondetta

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[1] She is a member of Arehu lineage, Jegare clan, and her husband a member of Berekipa lineage of the same clan. Intra-clan marriages are not uncommon, a contributing factor in this instance being that Olga is believed to be descended from a Togahau war captive (Rimoldi: personal communication).

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents. 512 461

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $8 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee. [464] [465]

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house. [883]

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 8.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with 517 [461] [533] [535] [177] [578]

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competing guitar groups, parties also provide a means of making contact with the opposite sex.

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Apart from attendance at church services, meetings of all kinds attract the young men and account for 22 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Sasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 6.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

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In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

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Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (8.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

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●512 time is somewhat different, greater emphasis being laid on the planting of food crops, suggesting that their harvesting is primarily the concern of his daughter. Although he obtained considerable assistance in rebuilding his house during the survey, Umbahapa spent 2.9 hours per week on construction but all other productive tasks are of little significance.

Social obligations are no longer of much concern to Umbahapa, restricted as he is by his bad leg and increasing age. They account for only 1.9 hours a week and among them mourning predominates. These apart, he is a frequent church attender and periodically visits the clinic in connection with his leg. However, Umbahapa's behaviour shows he is no longer a fully active member of society; his concern is with meeting his subsistence requirements and whether he successfully achieves these on the basis of his efforts alone is questionable. Umbahapa is very dependent on the 'sympathy group' since it is his kinsmen and the community as a whole who have assumed responsibility for his well-being.

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512
461

Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

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(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ina) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

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Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

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During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

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[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

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Table 7:3

Females: mean time spent per man-week on all activities in each recording period
(hours per man-week)

Group	Activity		Period I	Period II	Period III	Survey
Clearing			2.9	2.0	3.5	2.8
Subsistence gardening	Fencing		0.6	2.3	0.2	0.9
	Taro	- plant	2.4	1.8	2.6	2.3
		maintain	2.1	2.6	2.2	2.2
		harvest	2.9	0.9	1.6	2.1
	Sweet potato	- plant	0.1	0.5	0.5	0.3
		maintain	-	0.2	0.2	0.1
		harvest	0.5	0.8	1.2	0.8
	Yam	- plant	0.2	-	0.3	0.2
		maintain	-	-	0.2	0.1
		harvest	0.1	1.3	-	0.5
	Minor crops	- plant	0.3	0.4	0.5	0.3
		maintain	-	-	0.3	0.1
		harvest	2.0	1.3	1.5	1.7
	Harboring crops and other products		-	0.4	0.7	0.3
	Total		11.2	12.7	11.9	11.7
Other subsistence food production	Fishing		4.5	1.4	4.6	3.0
	Hunting		1.5	2.2	2.5	2.0
	Gathering		0.2	0.9	0.7	0.5
	Game-raising		0.1	1.3	-	1.1
	Total		6.3	5.7	7.8	6.5
Other subsistence activities	Preparation of tools and equipment		1.3	1.3	1.6	1.4
	Construction		1.7	4.8	0.3	1.0
	Total		3.0	6.1	2.0	2.4
Household	Washing		1.2	1.7	1.6	1.4
	Cooking		0.6	0.2	5.9	2.2
	Collection firewood		0.1	0.4	0.3	0.1
	Total		1.9	2.3	7.7	3.7
Social obligations	Marriage		-	-	-	-
	Death		0.4	-	-	0.2
	Other		2.7	0.3	1.9	2.0
	Visiting		1.4	1.3	2.4	2.0
	Total		4.4	1.7	4.4	4.4
Cash cropping	Coffee	- plant	-	0.2	-	0.1
		maintain	0.3	0.2	0.3	0.2
		harvest	0.2	0.2	-	0.1
		process	0.1	0.1	-	0.1
	Cocoa	- maintain	0.1	-	-	-
	Copra	- maintain	-	-	0.2	-
		harvest	-	0.7	-	0.1
		process	-	0.6	-	0.1
		market	-	-	-	-
	Total		0.6	2.0	0.7	1.0
Paid work			2.6	0.3	2.0	2.0
	Entrepreneurial		0.7	0.3	1.0	0.7
	Total		3.1	0.5	3.0	2.7
Sick	Personal		0.3	0.0	1.1	0.6
	Care of sick		0.7	1.3	1.0	1.0
	Total		1.1	1.3	2.1	1.6
External agencies	Purchasing		0.7	0.7	0.8	0.7
	Council work		1.3	0.7	1.5	1.2
	Meetings		0.6	-	0.1	0.3
	Church work		0.1	-	0.3	0.1
	Church services		1.1	0.5	0.7	0.5
	Total		3.8	1.9	3.4	2.7
Miscellaneous	Recreation		0.5	0.3	0.5	0.5
	Other		1.1	0.9	0.8	1.0
	Researchers		0.1	-	-	0.1
	Total		1.7	1.3	1.4	1.5
Total - all groups			40.6	43.0	48.6	43.5

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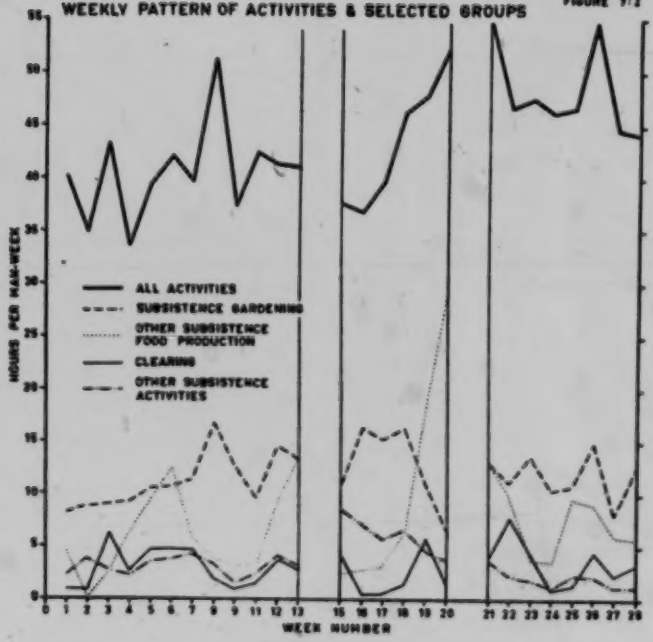
INONDA
WEEKLY PATTERN OF ACTIVITIES & SELECTED GROUPS

FIGURE 7:2



towards the end of this season. Due to the intensive demands on labour for sago-making, men often spend all the daylight hours on this task, so that the average working day is longer than at other times, reaching 7.5 hours. The time spent on sago is at the expense of not only leisure but also of clearing, subsistence gardening, other subsistence activities and involvement with external agencies (particularly council work). Although sago-making is normally restricted to the dry season, in 1964 one household had to resort to sago near the end of the wet season, because the people concerned had spent several months late in 1963 at Saiho hospital and, on returning to Inonda, had no time to clear sufficient gardens to provide food throughout the wet season.

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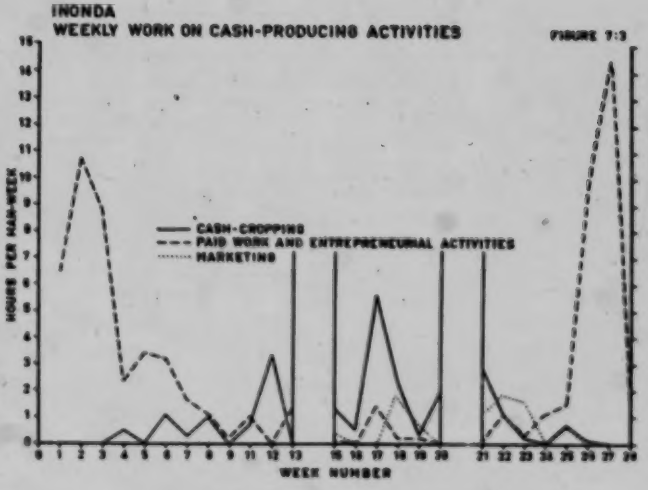
8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512
461



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
224 leaves beside paths while walking to or from other activities and
221 such gathering may not be recorded. In addition, a considerable
[411] amount is gathered by children. Hunting also increases during the
dry season, with the increased number of wild pigs. However, a
significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

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(ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

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The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

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Table 7:4

Inconds: adjusted mean weekly activity over survey period
(Adjusted with additional data on household tasks)

Mean number of man-weeks	Hours per man-week	
	Household	Total
14.7	10.1	49.9

(b) The external sector

In total, subsistence activities, including household tasks as adjusted above and excluding construction oriented towards cash income, occupy 34.8 hours per person per week. Cash-producing activities - cash cropping, paid employment, entrepreneurial activities, marketing of game and construction of the copra-drier - together occupy 4.5 hours per person per week. Unlike most of the subsistence activities, not everyone engages in cash-producing activities. Some men did not obtain paid work during the survey period and there is only one man with the experience and confidence to operate as an entrepreneur. Women may assist husbands and kin in cash cropping and sell produce in the market on their own account but they do not engage in paid work (though some had, in the past, worked as domestic servants on a nearby plantation). However, taking the village data as a whole, an individual spends an average of 39.3 hours a week on productive activities in both the subsistence and the monetary sectors.

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(i) Cash cropping. The average time devoted to cash cropping is only 1.0 hours per man-week. Although the survey excluded much of the coffee harvesting and selling season, the figure would be only a little higher if these had been incorporated. Only one household harvested and processed coffee during the survey; if the other two households with mature trees had also done so at the same rate, the overall average time on cash cropping would be raised to 1.4 hours per man-week. The most intensive work was carried out on copra in the dry season, when harvesting and processing occupied a mean 1.3 hours per man-week over that period. Unfortunately, much of this time was wasted. When the drier was finished, it was decided that copra-making should be a communal project and the villagers spent a total of 82.6 hours, most of this in three days, collecting and splitting some 410 coconuts, laying out the flesh and maintaining a fire. On the fifth day, the fire was stoked with husks instead of wood and shells and the copra was spoiled by the thick smoke. The following week the women refused to assist the men for more than a few minutes, since their previous labour had been wasted. The men spent 10.8 hours harvesting more coconuts and assistance from the researchers saved them 1 hour in transporting

512 461

the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Hosou and Habemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

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entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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The organisation of work by households

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

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There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

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The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

(TEXT CONTINUED ON PAGE 143)

Table 7:5

Female activity patterns of households over the whole survey period
(hours per man-week)

Household no.	16*	17*	18	19	20	21*	22	23*	24	All households Total	Mean	Cash cropping households Total	Mean	Non-cash cropping households Total	Mean
No. of adults	4	3	2	1	3	2	2	2	2	21		11		10	
No. of man-weeks recorded	71.4	53.9	36.1	36.0	51.6	45.4	19.1	40.7	30.1	381.4		230.4		161.0	
										(hrs)		(hrs)		(hrs)	
Clearing	2.2	2.5	2.0	4.8	2.7	2.3	1.9	3.5	4.9	1,107.9	2.9	546.2	2.4	561.7	3.4
Subsistence gardening	11.7	10.0	16.3	13.5	11.3	8.8	12.2	9.8	16.2	4,479.5	11.7	2,263.0	10.3	2,216.5	13.8
Other subsistence food production	7.9	8.9	4.7	4.4	12.0	8.1	3.4	7.1	4.3	2,869.5	7.5	1,723.8	7.8	1,145.7	7.1
Other subsistence activities	2.7	2.8	3.2	3.9	3.7	3.4	0.8	3.3	2.6	1,292.7	3.4	751.5	3.4	541.2	3.4
Cash cropping	2.3	0.4	0.8	0.2	0.2	2.1	-	1.0	-	369.5	1.0	329.3	1.5	36.2	0.2
Paid work and entrepreneur	1.5	2.6	-	-	2.5	1.4	12.2	3.7	1.8	1,042.6	2.7	591.7	2.7	450.9	2.8
Household	3.8	4.1	4.8	0.9	4.8	4.7	1.8	4.9	4.2	1,499.5	3.8	944.4	4.3	555.1	3.2
Social obligations	4.6	4.2	0.1	2.2	3.6	5.5	4.5	2.7	4.2	1,395.7	4.2	944.6	4.3	681.1	4.0
Sick	2.7	2.4	1.4	0.1	1.5	2.0	-	1.3	0.1	598.5	1.6	475.4	2.2	123.1	0.8
External agencies	3.6	2.9	2.8	1.0	2.7	4.7	1.4	4.8	2.8	1,241.6	3.2	866.6	3.9	377.0	2.3
Other	1.3	1.3	0.8	0.4	2.6	1.6	2.9	1.7	0.7	367.2	1.3	212.5	1.4	254.8	1.6
Total	44.3	41.3	42.1	35.6	44.4	44.4	44.4	45.8	43.1	16,490.3	43.5	9,747.0	44.4	6,853.3	43.0
Mean length of active day**	6.6	6.1	6.7	5.1	6.8	6.7	6.7	6.9	6.6						

* Cash cropping households.
** Excluding days sick.

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Table 7:6

Inonda: activity patterns of households (adjusted)[#]

Household	Number of man-weeks	Total hours		Hours per man-week	
		Household tasks	Total	Household tasks	Total
16*	71.4	669.1	3,559.4	9.4	49.8
17*	53.9	571.2	2,574.0	10.6	47.8
18	26.1	388.7	1,384.4	14.9	53.0
19	26.0	22.5	873.7	0.9	33.6
20	51.6	521.0	2,741.1	10.1	53.1
21*	45.4	518.9	2,414.5	11.4	53.2
22	19.1	148.1	976.2	7.8	51.1
23*	49.7	583.3	2,617.2	11.7	52.7
24	38.1	436.7	1,880.1	11.5	49.3
Total	381.4	3,859.5	19,020.6	10.1	49.9
Cash croppers	220.4	2,342.5	11,165.1	10.6	50.7
Non-cash croppers	161.0	1,517.0	7,855.5	9.4	48.8

[#] Table 7:6 shows the relevant parts of Tables 7:3 and 7:5 recalculated taking the adjusted average figure for household tasks into account. For an explanation see p.136.
* Cash cropping households.

in gardening. Although the leading man is one of the most successful hunters, his household spends a little under the average amount of time on these other food-producing activities, and only a small amount of time is devoted to sago-making in comparison with several other households - notably 16, 17 and 21.

The remaining subsistence activities are the preparation of tools and equipment, and construction. As household 22 did not build a house on the new village site it spent little time on this category of activity. In contrast, the men in households 19 and 21 helped the widow build her house, as well as joining the other men in building the copra-drier, and these households have the greatest weekly input of labour into these activities. There is little difference between the levels of the other households.

Only three households spent one or more hours a week on cash cropping. Two of these have mature coffee trees and the third is establishing a new coffee garden. In addition to looking after their own coffee, members of household 16 assisted kinsmen in Ijika and on the settlement block in establishing and maintaining coffee and cocoa trees. The head of this household is the only member of the OCCS in Inonda. While most of the time spent on cash crops by households 16 and 21 was on coffee, much was on the copra project,

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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and this latter accounted for most of the time household 23 devoted to cash cropping. It is interesting that household 17, which owns 107 mature coffee trees, spent less time on them during the survey than household 18, a non-cash cropping household, spent in assisting others with their coffee. The head of household 17 expressed dissatisfaction with his returns from coffee and did not fully harvest the yield of his trees, although the price was double that of the previous year. The small amounts of labour spent in cash cropping by other households result from their assisting owners of coffee trees and collecting and opening coconuts in the communal copra project. Although the inputs of labour by non-cash cropping households are small, even those of households 16 and 21 amount to only 5 per cent of their total activity time. Apart from the widow and widower, these same household spend the lowest proportion (both 3 per cent) of their time in paid work.

All the households spent some time in cash-producing activities, but the widow and widower only assisted others in cash cropping and the heads of households 22 and 24[1] worked only in paid employment. For the Jego'undi man in household 22, paid work was the single most time-consuming activity, exceeding subsistence gardening in spite of his household spending more time in gardening than the average, and it is worth noting that this household entered least into subsistence transactions but disposed of more than average amounts of storebought foods.[2] It seems likely that in 1964 the absences of the household head in paid work and of the whole household on a two-week fishing expedition required unusually intensive work in gardening at other times to ensure subsistence. This household receives no labour assistance from others, whereas the entrepreneur's household (23), which devotes the second highest amount of time weekly to cash-producing activities and the second lowest amount to gardening, receives considerable assistance through labour services[3] and this household is prominent in transactions of subsistence as well as of storebought produce. These two households have the lowest cultivated area per household member in the village. It appears that those who engaged in full-time wage employment for more than two or three consecutive weeks find it difficult to maintain their gardens and therefore meet their traditional obligations in the

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[1] The household head has no rights to land for cash cropping in Inonda. See p.60.

[2] See Tables 11:8 and 11:9.

[3] The difference may be due to the fact that the head of household 23 is the head of the dominant lineage, the most educated, experienced and prestigious man in the village. The head of household 22, on the other hand, was the sole adult member of his lineage and a marginal member of the village. He left Inonda during the survey.

592 exchange network and they must use cash and storebought goods to
512 compensate for this.

[461] Few households differ greatly from the average in the amount of
[462] time they devote to household tasks. The widower, like most men, seldom cooked, whereas in household 18 the widow's son was rarely present and the mean weekly time spent in household tasks is strongly influenced by the time spent in cooking by the widow. Household 16 appears to spend less than the average time since it contains two men as well as the wife's mother, who does not cook as often as her daughter. The small amount of time spent by household 22 is probably due to the fact that the members had comparatively few clothes and so little time was spent in washing.

164 As mentioned, much of the time shown as spent in sickness involves visits to the aid post and particularly to the fortnightly infant welfare clinic. Households containing small children, then, appear to spend most time in sickness. When days, rather than hours of sickness (including periods spent outside the village at hospital or the aid post), are taken into account, it is the households containing people over 45 that are most often sick. Household 24 spends on average 1.3 days per man-week in sickness. In addition to regular fevers, the household head suffered an anal prolapse in August and he and his wife spent the last 19 days of period II at Saiho hospital. Households 18 and 19 have the next highest sickness rates. Household 16 also has a comparatively high rate, largely because of the presence of the wife's aged mother but also because the whole household was sick with influenza during most of the last two weeks of the survey. All of the other households spent less than half a day per week in sickness.

592 There is not much difference between households in the amount of
512 time spent on social obligations. The widow and the wife of the head of household 21 spend rather more time than others in visiting, while the entrepreneur's household, (23), and the widower do little, and the latter was also unable to attend two feasts on account of sickness.

592 In addition to differences in activity patterns between the in-
512 dividual households, certain distinctions appear between cash
461 cropping and non-cash cropping households as groups. As is to be expected, cash cropping households spend more time in planting and tending commercial trees. Non-cash cropping households spend only 0.2 hours per man-week in cash cropping, assisting others and working on the copra project, but even cash croppers spend an average of only 1.5 hours per week on their trees. The two categories devote a similar amount of time to paid work and entrepreneurial activities - primarily because the Jego'undi men's period of work on the settlement block was intensive enough to outweigh the effect of the older non-cash croppers, who did no paid work. On average, people in non-cash cropping households spend 3.5 hours more per

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is [757] without taking the separately-recorded days of sickness into account. In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as <u>irenge</u> as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

<u>Inonda: days spent in sickness per man-month</u>

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	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 <u>The division of labour: the influence of sex</u>

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

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Table 7:9 shows the activities that consume most time of men and women separately, and of the nine most important activities for each sex, only fishing, planting taro and miscellaneous ceremonies appear for both men and women. Apart from planting taro and forest clearance, garden tasks account for a comparatively small proportion of men's time. The other food-producing activities have greater significance, with fishing, hunting and sago-making accounting for over one-fifth of the total time spent by men. It is striking that paid work is the third most important category of activity for men in general, even though the entrepreneur spent only a few hours and the widower no time at all in this way. Since five of the eleven men are in the youngest age group, this group's patterns have a marked influence on the pattern for men as a whole and largely account for the significance of fishing, visiting and miscellaneous ceremonies.

Garden tasks, particularly the maintenance and harvesting of taro, are much more important for women than for men. However, cooking is by far the most time-consuming activity for the former and the other main household chore, washing, is fifth in importance. Much of the time that women spend in fishing is with their husbands but they do fish alone - generally with small nets - while returning from the gardens. As described above, most of the time spent in preparing tools and equipment is for string bags and pandanus-leaf sleeping-mats.

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There is no specialisation of labour according to age. The main apparent differences are that young people (under 25 years) tend to spend more time in non-productive activities such as visiting and miscellaneous social ceremonies, whereas those over 45 have a more restricted range of activities and devote a higher proportion of their time to gardening.

<u>The weekly pattern of activities</u>

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As in Sivese, there is a semi-official, ideal pattern of work allocation through the week. Monday and Tuesday are said to be for cash cropping, Wednesday for mission work, Thursday and Saturday for subsistence gardening, Friday for council work and Sunday for rest. Although this ideal does have some bearing on behaviour, the actual pattern is much less clearcut.

As Table 7:10 shows, clearing, fencing and cultivation of subsistence gardens take place throughout the week and only a slightly smaller amount of time is devoted to these activities on Sundays than on other days. Cash cropping receives most attention on Mondays and Tuesdays as in the ideal pattern, but it is still quantitatively much less than the attention given to subsistence gardening or to other food-producing activities. On these days cash cropping accounts for 5 per cent of total time spent, compared with 2 per cent over the week as a whole. Church work takes place

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Table 7:10

Inonda: the weekly pattern of activities
(hours per man-day)

Ideal allocation	Monday Cash crops	Tuesday Cash crops	Wednesday Mission work	Thursday Subsist-ence	Friday Council work	Saturday Subsist-ence	Sunday Church and rest
Total man-days	383	383	393	387	381	365	374
Clearing	0.4	0.6	0.5	0.5	0.3	0.5	0.1
Fencing	0.2	0.1	-	0.1	0.1	0.1	0.2
Subsistence gardening	1.6	1.8	1.2	1.8	1.4	1.5	1.2
Fishing, hunting, gathering	0.9	0.8	0.8	0.9	1.1	0.8	1.1
Sago-making	0.2	0.3	0.2	0.2	0.2	-	-
Other subsistence activities	0.5	0.6	0.5	0.5	0.5	0.4	0.4
Household	0.5	0.5	0.6	0.5	0.6	0.6	0.6
Social obligations	0.2	0.2	0.3	0.3	0.4	1.6	1.2
Cash cropping	0.3	0.3	0.2	0.1	-	0.1	-
Marketing	-	-	0.1	-	-	0.2	-
Purchasing	0.1	-	0.1	0.1	-	0.3	0.1
Entrepreneurial	0.1	0.2	0.1	0.1	0.1	0.1	-
Paid work	0.4	0.4	0.3	0.6	0.3	-	-
Council work	0.3	0.2	0.2	0.1	0.3	0.1	-
Meetings	-	0.2	-	-	-	-	0.1
Church work and services	0.1	-	0.1	-	0.2	-	0.6
Sickness	0.2	0.1	0.7	0.2	0.1	0.1	-
Miscellaneous	0.4	0.2	0.1	0.2	0.3	0.2	0.2
Total	6.4	6.5	6.2	6.1	6.0	6.7	5.7

mainly on Wednesdays on the rare occasions when it is performed; services are naturally on Sundays though there is a lesser concentration on Friday due to the effect of the two Good Friday services and the occurrence of Christmas Day on a Friday in 1964. Council work on cleaning household areas is spread much more over the week than the ideal suggests, but communal cleaning of the village square is usually restricted to Fridays. The ideal of Sunday as a day of rest is not entirely borne out, in reality. The mean duration of activity on Sunday is 5.7 hours, little below the mean for the other days, but the activities pursued tend more towards leisure than on other days. Thus, 1.2 hours are taken up in social obligations, 0.6 hours in church services and 1.1 hours in hunting and fishing; the latter is often associated on Sundays with 'picnics'.

The 'ideal' pattern excludes many of the village activities, but some of these also are carried out more on certain days than on others. Marketing is restricted to the Popondetta market-days (Wednesdays and Saturdays). The increased emphasis on hunting and fishing on Fridays is designed to provide commodities for sale in the major Saturday market. The incidence of paid work is naturally almost entirely on weekdays since employment of labour is almost exclusively by Europeans; the small amount of weekend work was on the construction contract at the airstrip. As explained, the concentration of hours of sickness on Wednesdays is due to the fortnightly infant welfare clinic at Ijika. Social activities other than visiting and those associated with deaths are now more or less confined to the weekends, often extending from midday or earlier on Saturday to after dawn on Sunday. The only other activity with a notable periodicity is purchasing, this being mainly carried out on Saturdays, either after marketing or as an isolated activity.

The duration of activities

Table 7:11 shows the mean duration, in hours, of each activity and the standard deviation from the mean. It also shows the mean time of day at which each activity occurs, in terms of the mean mid-point of the period shown in the 'duration' column and the standard deviation from this mean. There is clearly a wide range in the duration of individual activities and in three cases (the weeding of minor crops, entrepreneurial activities and church services) the standard deviation exceeds the mean duration. The mean duration of a session of forest clearance is three hours, but two-thirds of all sessions last between one and five hours.

The mean duration of sessions devoted to specific garden tasks, such as planting or harvesting taro, is comparatively short, since several different tasks are commonly performed during a single visit to a garden. People usually leave for the gardens in early or mid-morning and return in mid-afternoon. With cash crops a whole

[TEXT CONTINUED ON PAGE 153]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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morning or, less frequently, a whole afternoon is devoted to a particular task of cultivation, whether planting, maintaining, harvesting or processing and the mean duration of each of these activities is longer than for subsistence garden tasks.

As described,[1] the longest working sessions are spent on sago-making: 68 per cent of these sessions last between 5 and 11 hours. Thus, when a sago-palm is being harvested, men have little time for other tasks. Paid work also tends to preclude other activities by occupying the bulk of the daylight hours and the same is largely true of the fulfilment of most social obligations. Although many social occasions, particularly feasts and parties, take place during or continue into the night, the daylight hours beforehand are usually taken up with preparations, including the construction of shelters and the harvesting of food. Hunting and fishing both occupy on average more than four hours at a time. Fishing usually takes place in daylight hours, whereas people hunt mostly at dawn or dusk[2] and hunting does not therefore prevent the performance of daytime activities.

Most of the activities shown in Table 7:11 have a mean mid-point falling between about 11 a.m. and 2 p.m. Activities occurring early in the morning are church services, 'mission' work, visits to the aid post (personal sickness) and visits to Popondetta market.

The journey to work

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Table 7:12 shows the proportion of total time spent on different classes of activity in travelling: part A shows the details for people while resident on the old village site and part B for the new site. Owing to the method of coding for computation, it was not possible to make allowance for the performance of several tasks at one site; where, for instance, a woman visited a garden and spent some time in clearing, some in weeding and some in harvesting and also visited another site on her way home, each period was recorded separately, thus exaggerating total travel time. An attempt was made to reduce the exaggeration by recording separately the occurrence of such duplicated times and these have been subtracted from the total, but not from the grouped activities. Most of these duplications were in clearing and gardening activities. Applying therefore an arbitrary proportion of 70 per cent of the

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[1] See p.133.

[2] This bi-modal distribution for hunting invalidates the mean mid-point of 1331 (1.31 p.m.) hours shown in Table 7:11. To some extent the same is true of cooking, since most cooking is in early morning for breakfast and in late afternoon for dinner.

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166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isembe has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

● 512 461 [226] Isembe is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isembe's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold hipere (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.80. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. A closely related activity is church attendance, which occupies over an hour [776] a week because Isembe often walks to services at Uiku, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 infant children, partly because he suffered from a leg ulcer for some weeks, but also
512 partly because of the social aspect of such visits.

In all, productive tasks account for 32 hours, or 65 per cent of the total for the week, and two-thirds of this amount is spent in activities in the subsistence sector. Of the weekly total of 49.5 hours, 11.3 hours or 23 per cent are related to the monetary sector and external agencies such as the mission.

472 Lawrence. Aged 36, Lawrence is the leading man and entrepreneur. He is married
159 and has four children, the eldest being a boy of twelve. Although he only reached standard IV at the mission school, he became a mission teacher and spent four of his five and a half years in this occupation in New Britain. He subsequently spent periods while resident in the village as a labourer and carpenter's assistant and served for two years as elected local government councillor for the villages of Ihonda, Hohota, Mosou, Ajuro and Sewa. Lawrence acquired 230 coffee trees from his classificatory father and has rights to over 100 mature coconut palms. In 1963, he opened the trade store in the village. In November 1964 he had a total cultivated area of 1.23 acres, of which 0.9 acres were under taro. Unlike most other households, he has no sweet potato garden and only a token number of yam vines, cultivating banana, corn and Xanthosoma instead as subsidiary crops.[1] His household has a lower area of food garden per member than all but one other household and he spends less time in subsistence gardening than all the six selected individuals apart from Bomba.[2] Like most household heads, he is rarely absent from the village. During the survey he spent two days at a feast which almost everyone in the village attended, two days visiting his wife's father in hospital, two in Port Moresby with the researchers, one on work for the Administration during the national elections and one caring for his sick daughter. In addition, he was inactive through sickness - mainly influenza - for nine days.

Through a combination of several factors, including his position as senior resident member of the Andiriha clan, and the knowledge and experience gained during his periods as teacher and councillor, Lawrence is developing his entrepreneurial skills towards the

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1 The same pattern was evident for this household in 1962 (G. Hughin: personal communication).

2 However, Lawrence's household is above average in terms of cultivated area per able-bodied person.

472 achievement of several ambitions, including the acquisition of a carpenter-built house. He spends more time on cash-producing activities than any other villager and is the recognised spokesman in all village-level contacts with the external agencies. Through his experience he was able to win and fulfil the construction contract at the airstrip, as well as arranging for the sale of hardwood trees to the Administration, which others could, but did not do. Half of the time spent on entrepreneurial activities is on the trade store and the rest mainly on the contract. As will be shown in Chapter 12, these activities are more rewarding than cash cropping, and the entrepreneur spends less than 0.5 hours a week on his coffee holding and 1.0 hour a week on copra. Paid work and the other main source of cash, marketing, account for only 1 hour a week. Altogether, involvement with the monetary sector and external agencies occupies about 19 hours a week, or 37 per cent of the total - a higher proportion than for any other villager.

461 The most time-consuming activity after entrepreneurial activities is hunting, although prior to his purchase of a shotgun in July Lawrence spent very little time this way. This and other food-producing activities occupy as much time as paid work and entrepreneurial activities and double the amount spent on subsistence gardening. Productive activities in both sectors account for almost 42 hours, 80 per cent of the weekly total.

It is clear that for the entrepreneur cash-producing activities have the highest priority once subsistence is assured. In this connection, it is noteworthy that during the dry season, the intensive labour by all the men on construction of the copra-drier took precedence over other activities, but when a pig invaded his garden Lawrence spent two days in fencing and only then resumed construction of the drier.

512 [527] [431] Marjorie. This woman is aged 21 and is married to Emboni's eldest son, who began establishing a coffee garden during the survey. They have one son, and held a party to mark his first birthday in March. Marjorie was born in Hoherita village, as were four other Inonde residents, and she was educated to standard V. Her father's brother is a teacher at Popondetta mission school, where several other relatives also work and she spent a considerable amount of time visiting these and other kin, usually taking gifts of garden produce and receiving in return storebought foods and cash. In addition to the average 2.7 hours a week spent in this way, she was absent for 13 days on visits and for another 6 days on mourning and funeral obligations when her father and her husband's mother's brother died within a week of each other. Her frequent visits and gifts to her kin were

[TEXT CONTINUED ON PAGE 163]

Table 7:16

Isoaka: activity patterns of selected individuals
(hours per man-week)

		Cash croppers			Non-cash croppers		
Name		Isoaka	Lawrence	Marjorie	Paulus	Hanaka	Bahagi
No. of weeks present		13.9	25.8	22.3	23.1	26.0	20.6
Subsistence							
i. Productive							
Clearing		1.6	4.1	0.9	3.3	4.8	1.9
Fencing		0.3	1.8	0.2	0.7	3.4	0.9
Subsistence gardening	- plant	2.5	2.2	0.8	3.6	5.5	2.9
	maintain	0.7	0.6	2.3	2.7	2.9	4.7
	harvest	1.8	1.0	6.5	1.3	1.8	10.7
Subsistence produce	- market	0.9	0.4	-	0.8	-	-
Other food production		13.6	11.5	5.2	16.9	4.6	2.2
Other subsistence activities		0.9	3.5	2.9	5.8	3.9	3.4
Household		1.2	1.5	7.8	1.2	0.8	4.7
ii. Non-productive							
Social obligations		7.5	2.9	5.3	3.3	2.3	4.1
External							
i. Productive							
Cash cropping	- plant	-	-	0.4	-	-	-
	maintain	1.5	0.6	0.4	-	-	0.5
	harvest	0.8	0.2	0.4	0.1	0.1	0.2
	process	0.2	0.4	0.2	0.2	0.1	-
	sell	-	0.2	-	-	-	-
Paid work and entrepreneurial activities		3.9	11.3	-	5.1	-	-
Purchasing		2.1	2.3	-	1.8	-	-
ii. Non-productive							
External agencies		1.9	3.5	4.6	0.9	1.1	3.0
Sickness		3.2	0.7	2.5	0.8	0.1	0.9
Other		4.9	3.0	1.2	4.2	0.4	0.2
Total		49.5	51.7	41.6	55.7	35.8	40.5
Percentage of total time spent in							
Productive activities		65	80	67	82	88	80

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512 criticised by her husband and by others, particularly when her husband's mother was sick at the aid post and he was left with no close relative to perform household tasks. Social obligations and other generally non-productive activities account for 33 per cent of the total time that Marjorie spends on her activities, compared with 20 per cent for the village as a whole, and the mean length of her working week was less than 48 hours compared with the village average of almost 49 hours. Apart from household tasks, the most important productive activity is harvesting of subsistence crops. Over half of this time is spent on taro and the rest on sweet potato, yams and minor crops. The other aspects of cultivation and clearing bring the total time on subsistence gardening to almost 11 hours a week; only taro receives any maintenance. Fishing - usually with a small net, in contrast with the spears used by men - is the most time-consuming of the other food-producing activities, although she also assists her husband in sago-making. Other subsistence activities are restricted almost entirely to making string bags and pandanus-leaf sleeping-mats.

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The average weekly time Marjorie devoted to cash cropping equals that of the entrepreneur. She helped her husband establish a coffee garden and worked with the other villagers making copra. However, the time she spends in cash cropping is less than that spent in other activities related to external agencies. Of such activities, over one-third is on council work and almost one-third on meetings of the Hohota Women's Club; the rest is mostly on church services, since she often goes to the Ijika services held by close kin of hers. In total, these activities and cash cropping account for 14 per cent of her activity time.

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Although Marjorie invests sufficient time to maintain the household's gardens, it seems clear from the frequency of her contacts with her consanguineal kin in other villages and from the comparatively low proportion of her time devoted to productive labour that she is less oriented towards her village of residence than are the other wives, all but one of whom also originate from other villages.

Paulus. The younger of Manoho's two sons, Paulus is aged 25, is married to the sister of the leading man's wife and has two sons (a third having died a few months before the survey began). He was educated only to standard I. Subsequently two and a half years were spent working as a surveyor's assistant in Port Moresby and some months as a labourer (and briefly as a foreman) on the roads near the village. He has no cash crop

512 [461] holdings - his father's coffee plantation of over 100 trees was given to the eldest son - but intends to plant both coconuts and coffee. He sees cultivation of cash crops as preferable to working away from the village since the former guarantees a continuing minimum income, but he believes that paid employment while resident in the village is the best source of cash. After the end of the survey Paulus, Lawrence and two others obtained work in Popondetta, returning home each night. Despite his lack of formal education and holdings of cash crops, Paulus is generally recognised as second in status to the leading man, and when the leader refused to be nominated for re-election as local government councillor, he was asked instead. He was prepared to stand, but eventually declined because of his wife's disapproval. When Lawrence proposed individual working of copra it was Paulus who insisted, successfully, that it should be communal, on the grounds that the others had insufficient palms to make individual working worthwhile. However, having gained his point, he was prepared to leave the sale of copra and the operation of the village savings account to the leader.

[461] On average, Paulus is active for more time per week than any other villager and over 82 per cent of his time is spent on directly productive tasks. He is recognised as the most accomplished hunter in the village as well as being skilled at fishing and, together with sago-making, these food-producing activities account for almost one-third of his activity time. He frequently borrows a shotgun from Lawrence or from his living nearby and from [439] August onwards often took smoked meat or fish to market in Popondetta. As he has no cash crops his main sources of income are paid work, marketing and gambling, but only paid work consumes more than an average of one hour a week. Apart from the contract work, this includes work on the bridge over the Girua River during the first three weeks of the survey.

Although he spends more time on subsistence gardening than the cash croppers discussed above, Paulus spends much less in this work than the other non-cash croppers. Most time is spent in clearing and in planting and maintaining taro. He is one of the few with a significant number of yam vines, the crop occupying as much of his time as sweet potato [462] cultivation. As is usual for men, harvesting consumes little time, except for sugar-cane and coconuts.

The only other subsistence activity that accounts for a noteworthy proportion of Paulus' time is construction. Although much of this was, in fact, on the copra-drier, he spent

more time than others, during the survey at least, on house building. During period I, while still living in the old village, he erected a temporary house on the new site. During period II he lived in this structure while building his permanent house, and this was completed during period III. As was pointed out above,[1] the amount of time spent in building during 1964 was much higher than in most years.

Only 17 per cent of his time is spent in activities related to the external agencies and the monetary sector. Of the comparatively small amount of time devoted to activities not directly productive, Paulus spent most on minor activities and social obligations. As with the leading man, little time is spent on visiting.

Mamoko. A widower aged about 55, Mamoko was captured in an inter-tribal raid on the Managalase people in the Hydrographers Range and adopted by his captor from Inonda. He married an Inonda woman and had several children. His two surviving sons are still resident and several daughters are married to men in other villages. He received no education but spent six years as a plantation labourer. Unlike many of his generation he was baptised as a Christian and regularly attends the village services. It is said that Mamoko would be the 'ambo dombo' (big man) of the village if his wife were alive, since he knows most about the land and social relationships (which are of primary importance when organising feasts). However, as he has no wife to assist him and to lead the other women, he is unable to fulfil the role effectively. Instead, he gives advice to Lawrence, the accepted leader. In 1955, he and two other men, both rather younger than himself, made small coffee plantations on the north side of the Girua River. Some years later he gave his trees to his eldest son and staked out a harvested food garden near the present village site preparatory to planting cocoa, but he did not complete the scheme. During the survey, he spent a little time assisting the other men build the copra-drier and a little in collecting and splitting coconuts to make copra. His only cash income during the survey was from gifts, but immediately prior to the survey he had worked for some weeks on road-building.

The widower has the shortest working week of all the villagers, but 88 per cent of his time is devoted to directly productive activities. Over half is spent on the clearing, fencing and cultivation of subsistence gardens. Taro receives most attention, followed by yams,

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[1] See p.136.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

then sweet potato and minor crops. After the Mt Lamington eruption, several rivers flooded and, with the exception of Mamoko's, all the Inonda people's yam gardens were destroyed. The supply of yams has gradually been increased from those surviving in his garden, but he and his sons are still the only people with large holdings. Mamoko spends a considerable amount of time assisting others in subsistence activities; in particular, he cleared and maintained a sweet potato garden on behalf of the widow and also helped her in fencing, in erecting a yam storage house and in constructing her house on the new village site. He also spent 30 hours helping his son to make sago. His eldest son's wife and the widow often harvest in his gardens and cook for him. Among his other food-producing activities he spends 2.5 hours a week on hunting, using a spear and accompanied by his son's dog; he usually gives the produce to his son's wife.

Mamoko was never absent from the village for a whole day, but spent 19 days inactive through sickness. Largely because of this, he was unable to attend a number of feasts and spent less time than anyone else in this way. Like most of the men, he spends little time on council work; this and other activities related to external agencies and the monetary sector account for only 4 per cent of his time. In other words, his activities are now almost wholly subsistence-oriented, although he maintains an interest in and encourages others to plant cash crops.

Embogi. A widow aged about 51, Embogi was born in Urio village and retains close links with her kin there. Her first and second husbands, who were brothers, belonged to a subordinate branch of the main lineage in Inonda. Her third husband, who had one other wife living, died in 1962. She has a son and a daughter from this last marriage, and has remained in Inonda partly to maintain her youngest son's rights to land inherited from his father. She maintains a separate household with these two children but in August her eldest son and his wife (Marjorie) moved in with her prior to building their own house on the new village site. Embogi's second son (by her second marriage) normally lives with her but for most of the survey was staying with a classificatory father while attending the administration school at the settlement block. Her house was built mostly by this son and Mamoko, the eldest son being absent at the time at his wife's father's funeral feast in Hohorita.

Although Embogi's working week is considerably longer than Mamoko's, it is shorter than that of most others. However, 80 per cent of her time is devoted to productive

●512 activities - as high a proportion as the entrepreneur's. Most of this time is spent in maintaining and harvesting subsistence crops, particularly taro and sweet potato. In addition to the garden made by Mamoko, her brothers in Urio made a garden for her and also planted a 'catch crop' of sweet potato in a newly-cleared cocoa garden. Other food-producing activities - mostly fishing - occupy comparatively little time and other subsistence activities account for under 3.5 hours a week. Embogi spends more time on subsistence gardening than any other villager and detailed observations of her work on specific tasks revealed that she spends less than the average proportion of the time in resting. As is shown in Table 11:8, she also disposes of more subsistence produce than any other household.

Only 9 per cent of her time is spent in activities concerning external agencies and the monetary sector. She assisted her eldest son in establishing his coffee garden and helped the eldest son of her third husband in exploiting the trees he inherited from his father. She also helped briefly in the copra-making. In total, cash cropping accounts for very little of her time, but it is nevertheless a greater amount than for any other non-cash cropper. She was the only villager who spent any time collecting roofing materials for the Ijika church, and church work and services together consume the same amount of time as council work. She sometimes attends services at Ijika, where one of her daughters is married to the aid-post orderly.

Social obligations account for rather more time per week than contact with external agencies. In addition to the 4.1 hours shown in Table 7:17, Embogi was absent from the village for 12 days in visiting, mourning and feasting and for 9 days caring for her daughter during her first confinement. She was absent through personal sickness for a further 15 days.

As with Mamoko, Embogi's activities are largely subsistence-oriented and the shorter working week is at the expense of not only cash-producing but also of non-productive activities. None of the selected three cash croppers exceeds the non-cash croppers in the proportion of their time devoted to productive activities.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 0.723 Orokaiva 0.723
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437

Table 10:9

Sivopo: transactions of selected categories of goods and services by households
(volume per man-week)

A. Subsistence produce, cash crops and labour services

Household	No. of adults	No. of man-weeks received	Subsistence produce (lbs)						Cash crops ($)	Labour services (hrs)			
			Cultivated produce		Produce of hunting		Domestic pig		Cash crops	Subsistence		Cash	
			A	D	A	D	A	D	D	A	D	A	D
1*	4	86.3	13.4	9.1	1.0	-	7.0	6.7	-	0.2	0.5	-	0.2
2*	4	76.4	10.8	19.4	1.2	0.2	1.2	5.3	0.20	0.6	0.3	1.0	-
3*	2	51.1	15.8	17.1	0.7	2.4	0.7	0.3	0.30	0.1	2.7	0.2	-
4	2	9.6	7.7	2.7	-	-	-	-	-	1.4	1.3	-	0.4
5*	3	58.9	9.8	7.4	0.4	0.2	0.6	-	0.07	0.1	2.1	-	0.1
6	1	25.6	14.9	19.3	0.1	-	0.4	0.1	-	13.5	0.6	-	-
7	1	16.4	9.9	5.6	-	-	-	-	-	5.2	5.6	-	0.1
8	1	25.3	23.2	40.2	-	0.1	0.4	-	-	1.4	3.6	-	1.4
9*	2	47.3	30.4	34.6	0.5	0.2	0.2	0.1	0.33	0.6	-	0.2	-
10	2	39.1	9.0	6.4	-	-	0.7	-	-	0.8	0.2	-	0.4
11	4	68.1	9.2	11.9	0.1	0.1	0.6	-	-	0.1	1.0	-	0.2
12	2	16.4	12.1	8.1	-	-	0.1	-	-	0.1	0.6	-	0.3
13*	2	46.3	17.6	35.9	0.5	0.7	0.2	4.4	0.13	1.8	0.5	0.8	0.2
14	3	60.1	8.6	20.7	0.1	1.5	1.1	0.2	-	1.2	2.6	-	0.7
15*	2	30.3	22.1	38.2	0.3	2.6	5.8	2.7	0.31	5.1	2.6	1.4	0.2
Total	35	677.2											
Mean			14.2	19.0	0.5	0.6	1.8	2.0	0.11	1.5	1.4	0.2	0.2
Cash cropping households	T 19	416.6											
	M		16.2	21.1	0.7	0.8	2.6	3.2	0.17	1.0	1.2	0.3	0.1
Non-cash cropping households	T 16	260.6											
	M		11.1	15.6	0.1	0.4	0.6	0.1	-	2.3	1.8	-	0.4

It will be seen that the 7 household heads who have worked have spent a total of 80 years in employment. Only 20 of the 80 years were spent in unskilled occupations, the remainder (as councillors, constables, foremen, drivers, teachers) all carried some element of skill or responsibility.

The formal education of household heads is summarised in the following table.

Table 10

Summary of education of household heads

Household No.	Within own village		Within own district		Other districts		Total	
	Years	Standard reached	Years	Standard reached	Years	Standard reached	Years	Years x standard reached
1	-		-		-		-	0
2	-		-		-		-	0
3	2	1	-		-		2	2
4	5	3	2	4	-		7	23
5	-		-		-		-	0
6	3	1	-		-		3	3
7	6	2	-		-		6	12
8	-		10	8	3	10	13	130
	16	-	12	-	3	-	31	175

Patterns of work

The villagers claimed that they work to a pattern and that Monday and Tuesday are cash cropping days, Wednesday is for mission work, Thursday and Saturday are reserved for the food gardens, Friday is set aside for council work, and Sunday is a day of worship and rest. In fact, however, with the exception of men who are working for wages and have week-ends off, there is little in the way of a weekly rhythm in the organisation of work. There is usually a short church service held

512 early on Sunday morning, but otherwise Saturday and Sunday are spent in much the same way as the other days of the week. Most people trim the grass and clear away any rubbish around their houses on Friday mornings. This is known as "council work" as it is made mandatory by a council by-law. It takes only an hour or two and not all villagers do these chores at this time.

221 Although there is some seasonal rhythm in subsistence activities, it does not seem to be very great, and relatively few other activities are affected by seasonal variations. The obligations associated with death, marriage and ceremonial activities seem to have a much greater effect on the patterns of work.

462 House-building, hunting and bush-clearing are primarily the province of men. Women's work includes weeding, harvesting, and domestic chores. Both sexes co-operate in planting, collecting firewood, stacking and burning dead wood, and foraging for wild foods. Men appear to work jointly with their wives much more in the cash crop gardens than they do in the food gardens.

125 A brief survey of patterns of work was undertaken for a period of six weeks (from 2nd July to 12th August 1962). Such a short study cannot give any indication of seasonal variations, nor can it be considered as necessarily representative of the year as a whole. In fact, owing to the death of one of the village elders during our stay, a considerable amount of time was spent in mourning and attendant social obligations. But since the beginning of 1959 there have been an average of two deaths per year in the village, and when one considers that the villagers are also involved in deaths of relatives in other villages, in marriages both here and elsewhere, in feasts, church celebrations and other commitments, the amount of time spent in social obligations during this period may not have been unduly out of proportion. The survey was undertaken as a pilot project only, on the basis of which it is proposed to organize a much deeper study of time patterns among the Orokaiva over a

125 period of up to twelve months.

Data were collected daily on the work undertaken by each villager of fifteen years of age and over. Details of the work proposed for each day were noted each morning, and usually verified in the evening. However, as the people do not have clocks and we were unable to make detailed checks throughout the day, the number of hours recorded for each task can only be taken as approximate.

512 461 It is much easier to summarize and compare the hours spent in various activities if we have a standard yardstick of a day's work. Plantation labourers work an eight-hour day, but we are reluctant to use this as a basis for comparison with village folk. On the other hand, a simple total of hours spent in each task can also be misleading: for example, the councillor on one occasion spent seventeen hours on council work (including travelling time) in one day. Merely added into a list of hours this would suggest that more than two full days were spent on this duty, though this was not in fact the case. Likewise we have found it difficult to account for days spent in mourning, travelling or celebrating in such a way that total time can be effectively compared. From a preliminary analysis of days which were not marred by mourning, celebrating or sickness, we found that people were occupied in activities other than domestic and leisure for about seven hours daily. Therefore when a day is taken up with sickness, mourning, travelling or other non-productive occupations, we have recorded it for comparative purposes as seven hours.

It will be seen from Table 11 that on the average each man spent 14.0 hours a week on subsistence activities (including hunting etc.) and each woman 15.1 hours. If the time spent in cash cropping is added to this the average becomes 14.7 hours for men and 16.0 hours for women.

Table 11

Time patterns

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	Average hours per week (6 weeks)		
	Men	Women	Both sexes
Traditional production			
Subsistence	9.6	13.9	11.7
Hunting, fishing and foraging	4.3	1.2	2.8
Building	0.1	-	0.1
	14.0	15.1	14.6
Production for cash			
Paid work	11.3	-	5.7
Cash cropping	0.7	0.9	0.8
	12.0	0.9	6.5
Non-economic activity (other than domestic and leisure)			
Social obligations	12.5	20.0	16.2
Travel	2.8	3.1	2.9
Sickness	2.6	3.2	2.9
Council	0.6	0.1	0.3
	18.5	26.4	22.3
Total	44.5	42.4	43.4

When wage labour is available locally it is keenly sought after by the villagers. Two men had regular work for the Public Works Department. In addition some casual work was available at various times during the year on a local construction job. All the able-bodied men under about forty years of age offered themselves for work at such times but there was not always sufficient work for all to be employed. Table 12 shows that those men who were engaged in paid work for 40 or more hours per week still spent an average of 6.0 hours on subsistence activities (this is just under half that for all men in the village). They spent much less time on social obligations and travel, and had much less leisure time. This is illustrated in more detail in Diagram 1.[1] Owing to the absence of the paid workers during the day their wives had to undertake more work in the gardens, though in many cases a young male relative of the wife came to help her from time to time.

Table 12

Subsistence work done by men who were also engaged in full-time paid work

	Men in paid work	Total hours work on subsistence	Average hours per man
1st week	5	61	12.2
2nd "	5	nil (feast)	0.0
3rd "	No man had a full week's work this week		
4th "	1	nil	0.0
5th "	1	6	6.0
6th "	1	11	11.0
	13	78	6.0

Note: One man was omitted from the table as, though he was paid full time, he did not have to work full time and was able to do his subsistence work in his employer's time.

(1) It should be noted, however, that those who were accepted for employment were the younger, more energetic men who would probably have done more work than the average in any case.

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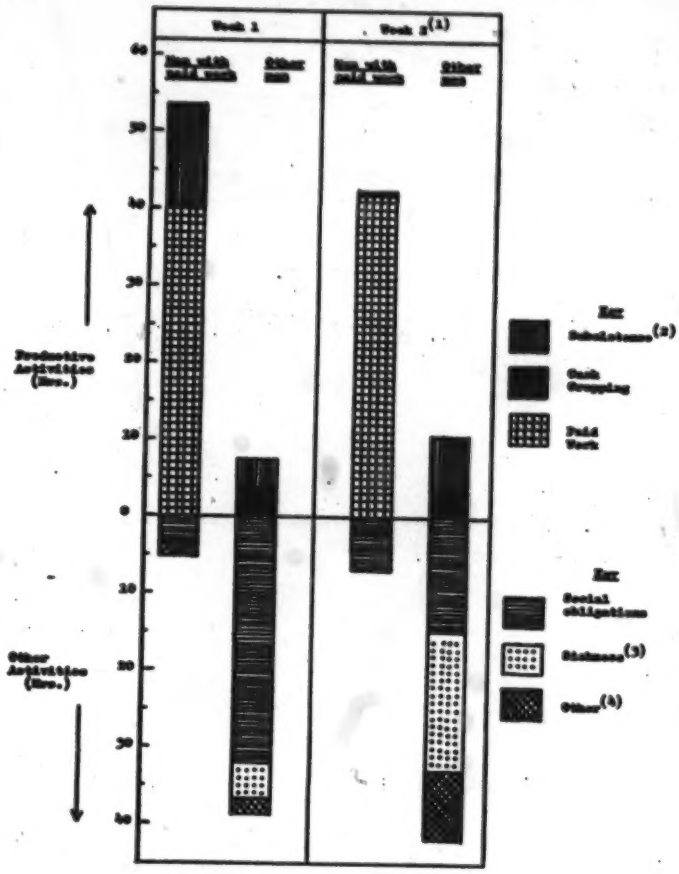
Diagram 1

Activities of wage earners compared with those of other persons.

[In average hours per person per week]



(1) This chart is only drawn out for the two weeks as thereafter there was not more than one man fully employed (see Table 12)
(2) Including hunting, fishing, foraging and building
(3) Including caring for the sick
(4) Including travel, council work etc.

[p.65]

512 461 241 Owing to their employment, the paid workers were able to spend less time on food production, and the average area of food garden was less (per consumption unit)(1) in households where the adult males had paid employment than in those where they did not. The three households wherein the only man had paid work had an average of 0.72 acres under cultivation per consumption unit, the two households wherein the only man did not have paid work had an average of 1.66 acres under cultivation per consumption unit, and the three households containing two men (in each case one working and one not) had an average of 0.79 acres per consumption unit.(2) Food intake was maintained partly by the purchase of store foods, particularly rice. Moreover, the wives of paid workers spent more time than usual in subsistence production, and concentrated more than the wives of other men on harvesting for current use more than [464] cultivation for future use. Planting is not maintained at the normal level when paid work is available, but as the work is casual this has no serious effects (for extra cultivation is done [465] when paid work is no longer available). The present pay-rate of £1.10.0 for a 40 hour week is not sufficient to feed a family from store foods alone, so that continuous work at these rates would probably result in a decline in living standards.(3)

512 461 Men who are engaged in paid work still engage to some extent in other types of productive work. The main substitution is not paid work for other productive work, but paid work for non-productive occupations. This is illustrated by Diagram 2 which compares the activities of paid workers with those of all men for the whole period.

The amount of time spent on social obligations is probably somewhat higher than usual owing to the death men-

[125]

(1) Any person 10 years of age or over was rated as one consumption unit, children 4 - 9 as half, and infants 0 - 4 as one quarter. Temporary visitors were excluded.

(2) The average for the households with two adults was reduced by the fact that in two cases the men remaining at home were either ageing or suffering from long-term illness.

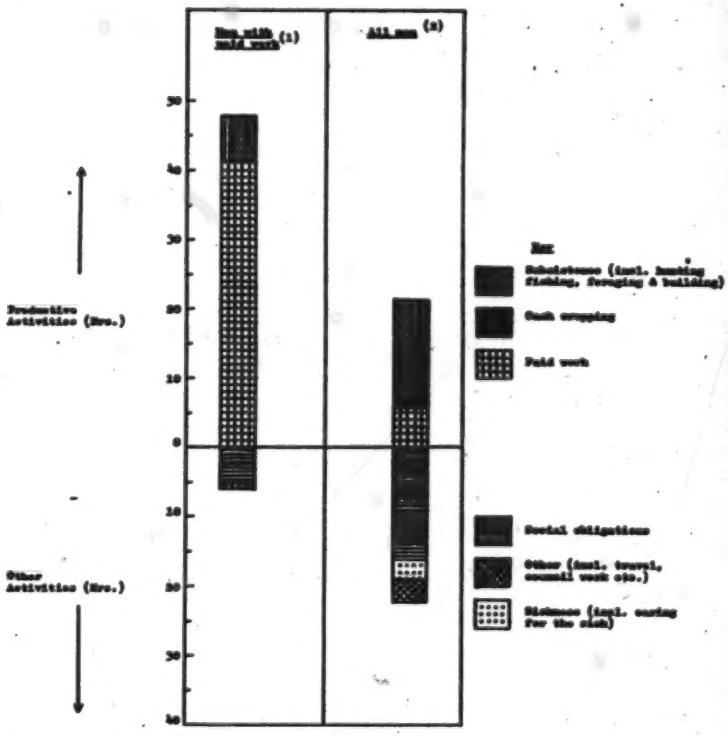
(3) The most reliable indicator of nutritional requirements is the rations scale in the Native Labour Ordinance 1958. This ordinance prescribes minimum quantities of foodstuffs required for indigenous workers and their dependents. The retail cost of the supplies listed is approximately £1.3.0 per week for a single man or £2.19.0 for husband, wife and three children. These prices are for food only.

[TEXT CONTINUED ON PAGE 68]

512
461

Diagram 2

Activities of men in gold work compared with those of all men in the village (in average hours per man per week).



(1) For first 2 weeks of the survey (see Table 12).
(2) All men for the full 6 week survey period.

[p. 67]

512 461 tioned, but it does indicate the effects of life crises on productivity. Table 13 shows the hours spent on various subsistence tasks during a "normal" week when there was no mourning or feasting as against the average of those weeks when there was mourning or feasting. It will be seen that approximately the same amount of time is spent on subsistence activities as a whole, but whereas in the "normal" period most of this time is spent on cultivation, during life crisis most of this time is spent harvesting accumulated reserves of food. It will also be noted that during times of crisis the work of women increases, as they do most of the food preparation, whereas the work of men decreases.

Table 13

Hours spent per person in subsistence activities in a "normal" week compared with weeks of mourning or feasting

	One "normal" week (no mourning or feasting)(1)			Weekly average of five weeks with mourning or feasting		
	Males	Females	Both sexes	Males	Females	Both sexes
Cultivation:						
Planting	5.6	1.9	3.8	1.7	0.9	1.3
Clearing	1.6	-	0.8	1.2	0.6	0.9
Fencing	3.8	3.6	3.7	0.7	-	0.3
Weeding	-	0.8	0.4	0.1	2.4	1.3
	11.0	6.3	8.7	3.7	3.9	3.8
Extraction:						
Harvesting	0.3	4.4	2.4	1.9	8.7	5.3
Sago-making	-	-	-	3.7	2.0	2.9
	0.3	4.4	2.4	5.6	10.7	8.2
Total:						
All subsistence activities	11.3	10.7	11.1	9.3	14.6	12.0

(1) This was the last week of our survey. The women of the deceased's family still spent some time in mourning, but the rest of the village resumed normal work.

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the traditional Orokaiva inheritance pattern, under which the first
[178] son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in the sense of particular days being set aside for particular kinds
● 512 of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.

[462] Five men were employed on maintenance work on the Popondetta-
[464] Kokoda road near Ombi for the full period of our stay, receiving
[465] $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

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TABLE 8

ACTIVITY PATTERNS OF HOUSEHOLDS
IN SIVEPE AND INONDA
(In Hours Per Man-Week)

Source: Waddell and Krinks, 1968: 97 and 132

Note: As virtually all Sivepe households were involved in cash-cropping by 1966-1967, the figures quoted here for Sivepe show the mean activity pattern for cash-cropping households.

Activity	Mean Number of Hours Per Adult Per Week	
	Sivepe	Inonda
Clearing	3.3	2.9
Subsistence Gardening	13.2	11.7
Other Subsistence Food Production	3.0	7.5
Other Subsistence Activities	1.4	3.4
Cash Cropping	2.3	1.0
Paid Work	1.0	2.7
Household	6.1	3.8
Social Obligations	3.3	4.2
Sick	1.0	1.6
External Agencies	7.0	3.2
Other	0.9	1.5
TOTAL	42.3	43.5

TABLE 18

SIVEPE: THE DIVISION OF LABOUR BY AGE
(In Hours Per Week)

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Source: Waddell and Krinks 1968: 104

Age Group	15-24	25-34	35-44	45-54	55+
No. of Individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total Weeks Present	105.9	128.0	115.3	252.6	51.1
SUBSISTENCE					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	14.9	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.6
Household	3.7	8.7	2.9	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	2.9	1.8
EXTERNAL					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	0.9	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.8	0.2	-
TOTAL	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.7	78.1	80.9
Subsistence time*	55.4	73.8	74.1	78.4	87.3
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

TABLE 19

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DIVISION OF LABOUR BETWEEN THE SEXES AMONG THE OROKAIVA IN 1923

Source: F. E. Williams Papers W.5, dated Wasida 5.10.23

Women

Planting and small cleaning in Garden
Fishing for small fish
Cooking
Cleaning house and surroundings
Pottery
Bark cloth and painting of same
Look after pigs and dogs
String bags
Mourning vests of Job's tears
Mourning neck ornaments, of Job's tears
Armlets of Job's tears
Make shell and string belts

Men

Clearing of gardens
Hunting
Large fishing
Building
Make spears
Make clubs
Make cane belts
Make woven armlets and leglets
Make shell and string belts
Make wooden bowls

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Day's work of woman

(Kjiro of Borugata)
Sometimes in garden . . . sometimes in village . . . but more often than not goes to the garden
Going in the morning she will clean . . . plant. . . dig up taro . . .
In afternoon she collects firewood . . . water (in a gourd, scooping it in with a folded leaf), . . . taro etc. in her string bag (eti) and return "at four o'clock".
Then she cooks for husband and children . . . after that kaikais betel and stops nothing

511 [207] [291] [178] [177] Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

411 [435] Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

342 178 None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 487 ●514 A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 134 Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. [31] The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practise,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
754 walk from Sivepa, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepa informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

TABLE 10

CHANGES IN HOUSE DESIGN,
HOUSE CONSTRUCTION AND
DOMESTIC AMENITIES IN SIVEPE, 1936-1966
(Comparison between standards reportedly applied
on four successive village sites)

Elements	1. Pusahembo (pre-war)	2. Pembe (between war and eruption)	3. Old Sivepe (after eruption, until 1965)	4. New Sivepe (1966)
Floor level	Raised on posts	Raised on posts	Raised on posts	Raised on posts
Flooring material	Betelnut, wide gaps	Betelnut: no gaps	Some betelnut, some blackpalm	Some betelnut, some blackpalm
Windows	No windows	No windows	Small windows	Large windows
No. of rooms	Three	Three	Three	Three
Walling material	Split sago	Split sago	Split sago	"Timber"
Nails: framing	Nil	Younger people	General	General
Nails: walls	Nil	Nil	Nil	General
Shrubs	Beside houses	Beside houses	Beside houses	To mark paths
Betelnut	Planted	Planted	Planted	Planted
Coconut	Few	More	More	More
Waste disposal	In gully	In gully	In gully	Rubbish holes
Pigs	Present	Present	Present	Absent
Hen houses	Absent	Absent	Absent	Pens built
Lavatories	Absent	Absent	A few	General
Floor area	"Very small"	"Bigger"	"Much bigger again" (200 sq. ft.)	"Big" (375 sq. ft.)

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22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23 Mount Lamington

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

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Yega Scheme cocoa blocks looking N.W., January 1963.

Yega workers resting under shade trees. Cocoa trees 18 months old, February 1962.

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Harvesting cocoa pods, July 1964.

Selling wet cocoa beans to fermentary representative, July 1964.

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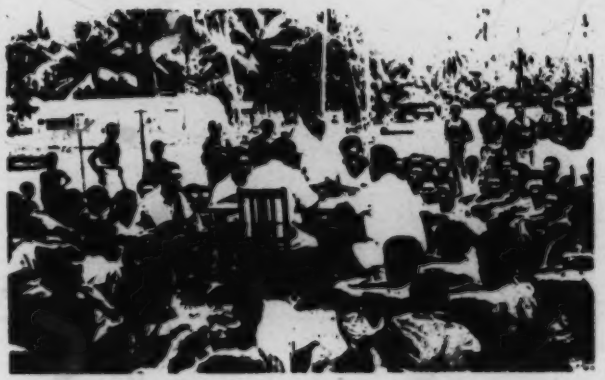

Gona villages co-operative store. Calculation of shareholders' rebates, December 1962.

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Gona villages co-operative store at Cape Killerton.

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Bride and groom outside the organizer's house on the morning of the first day of the bride-wealth exchange

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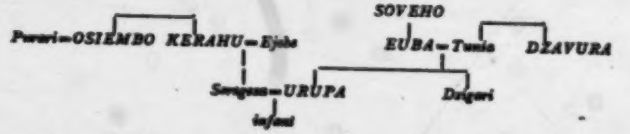
Transferring the cash

[p. 80]

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregesa married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregesa sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nou hakare tato tungesu

Ijoto pouta tato tungesu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregesa of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

517 [177] [578]

competing guitar groups, parties also provide a means of making contact with the opposite sex.

512 [177]

Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Sasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 8.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

512 461

In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

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Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (8.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

purchases. In this way the shareholders obtained additional rebate benefits. In general, however, sales to non-shareholders correlated fairly closely with the presence or absence of small coastal trading vessels at the wharf.

Most of the buying at the store was done by men. There were no women shareholders, but wives and daughters used their husbands' and fathers' share numbers when purchasing goods.[1] The men were discriminating buyers and a man who had walked some miles to the store to buy a specific item would usually stand for a while surveying the goods displayed and asking a question or two about prices. After the purchase was made, usually of only one or two items, the buyer left the store, but usually stopped to chat at Surilai village on the northern side of the store before going home.

An analysis made of the spending patterns of a group of 27 Yega shareholders over a two-year period (January 1961-December 1962) showed that of a total expenditure of $1148, 49 per cent was spent on food (mainly tinned meat, tinned fish, rice and sugar), 11 per cent on tobacco, 11 per cent on clothing, 7 per cent on kitchen utensils, 3 per cent on garden tools and 17 per cent on miscellaneous items including torches, soft drinks, kerosene, matches, fishing gear, etc.

The most sought after foods were those with high protein content - tinned meats and fish. Only one bicycle (costing $52) was sold during the two years surveyed. The low rate of spending on garden tools is noteworthy, considering the importance of gardening in the Yega economy; but axes and bush knives were carefully guarded and, being very durable they needed only occasional replacement.

Almost every Yega child over six years of age and every adult of both sexes owned at least one item of European-type clothing. On working days, cotton skirts were worn by the girls and women, and shorts or cotton loin cloths by the men, but tapa (bark cloth) skirts were preferred by the adolescent girls and tapa boavo (bark loin cloth) by the older men for Sunday wear. Most people preferred to purchase their clothing requirements from the wider range available in the larger Popondetta stores rather than from the co-operative.

Retail trading showed a remarkable increase from 1961-2 to 1962-3. The turnover doubled during the financial year but a fall-off in trade of about 12½ per cent occurred in 1963-4. This situation probably resulted from lower spending by Yega shareholders,

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[1] In the course of six or seven visits to the store I can recall only once having seen a woman at the counter.

guests, it appears that they were friendly but rather formal. As will be shown later, all arrangements in connection with Ilimo camp were made between the government and the Ilimo people; the Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

As I am at present discussing only unorganised contacts between villagers, I can give only one clear instance of changing attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village). Popondetta is preeminently the place where intelligent men from various villages can gather informally to discuss political and other public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusmale.

659 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

622 orderly. This man, like the "committee" in Sivepe, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hohorita pursued ends likewise
479 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
452 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

The composition of this committee was interesting: it did not
474 include the councillor, but consisted of the head teacher at Hohorita,
452 and a priest and a public servant both resident in Popondetta. All three belonged to the Bvreopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmovers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant [161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found. [597] Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages [423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

434 [513] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 None of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging [131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [23] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepa as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 484, pp. 107-108--Analyst]

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available 166 until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to 434 hold licences to trade in 1959, several Orokaiva men have estab- [438] lished trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[762] [2] Only two of the absent Sivepa men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [65] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [774] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Hosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

deposited in the savings account but was kept as cash-in-hand. None of the household's expenditure was in the form of gifts; most was in impersonal transactions and the rest in commercial exchanges with village people. 511

Household 16 has a slightly higher income than household 24, but three times the expenditure, so that its excess of income over expenditure at January 1965 was only $4.78. The main sources of income were sales of coffee, marketing and labouring. The wife's mother received 10 per cent of the household income in the form of gifts from close kin. 434

Household 20 also has a comparatively high level of income and expenditure and an excess of income of only $2.82. Just over one-half was from gambling and a further one-sixth from marketing; this household has no cash crops.

Household 21, which is establishing coffee but derived no income from cash crops, has a gross income of $48.60 and an excess over expenditure of $7.04, which was the second highest in the village. This was derived from a wider range of sources and was more evenly distributed among them than the income of most other households. Over one-fifth was received in gifts, mostly from the wife's relatives, many of whom are wage earners.

Household 17 owns 107 coffee trees but sales of coffee were less important as a source of its income than labouring, even though labouring on the main road occupied only one week early in the survey and labouring on the contract gang ten days during December. Expenditure by households 16, 17, 20 and 21 was mostly on tax payment and store purchases, but 17 per cent of the expenditure of household 20 and 5 per cent of household 21 comprised gambling losses. [511] [525]

The remaining three households had a low level of income and an excess of expenditure for the eleven months. Household 18 received its entire income as gifts from wage earners and fellow villagers, as did household 19, apart from a small sum from the researchers. Expenditure was exclusively in purchasing, but the widower (household 19) lost $1 while washing his clothes in a stream. Household 21 was present for only the first 13 weeks of the survey. Its income was derived from labouring for a settler on the Girua block and from sales of subsistence produce to villagers. Expenditure, which exceeded income by $4.04, was mostly in trade store purchases. The household head did not pay the council tax and was later jailed for three months. After leaving Inonda, he continued to work occasionally for settlers but no details of his income were collected.

The majority of cash transactions are with organisations: this applies to expenditure even more than to income. Many of the transactions with villagers represent payments for specific goods and services that are usually related to the cash sector, such as 437 434 511

assistance in picking coffee, rather than to the traditional network of exchange. The relative significance of the different sources of income and directions of expenditure varies considerably between cash croppers as a group and non-cash croppers. The sources of income and directions of expenditure for the 11 months period are shown for these two groups in Table 11:14.

It is important to bear in mind in interpreting Table 11:14 that it represents a very small population and particular individuals have a great influence on the figures. In addition, whereas 10 of the people in cash cropping households were resident for at least half of the survey period, only 8 of the people in non-cash cropping households were and only 3 of these latter were under 40 years of age. Thus, opportunities for acquiring cash income were quantitatively less for the non-cash cropping group. A further distorting factor is the role of the researchers in causing increases in income and, perhaps, in substituting for expenditure in the cases of tobacco and clothing for instance. However, any attempt to exclude extraordinary sources of income would make the levels of expenditure difficult to explain, and the data for income from all sources are given.

Cash croppers receive 71 per cent of the total income of the village and account for 78 per cent of the cash disposals. However, sales of cash crops account for only 8 per cent of total income and, with the OCGS dividend, for only 13 per cent of cash croppers' income. By contrast, contracts between the Administration and the entrepreneur account for 19 per cent of total village income. Some $43, or 6 per cent of total village income, is received from the entrepreneur by other villagers in the form of payments and gifts.

Small gifts and loans are next in importance to the entrepreneur's activities as a source of income for the village as a whole. The cash croppers acquired most of this money, but it is relatively more significant for non-cash croppers, owing to their lower level of income. The same is true of marketing, which yields 11 per cent of total income, and, to a lesser extent, of paid employment, which is more evenly divided between the two groups. Gambling winnings came to the same amount as income from cash crops but, when losses are taken into account, gambling is rather less rewarding although it still accounts for 6 per cent of village income. Gifts from wage earners comprise 13 per cent of the village income; such gifts formed over one-third of the income of non-cash croppers, but only 5 per cent of cash croppers' income. The figures suggest these gifts are made particularly to help relatives who have no income from cash crops. It is noteworthy in this context that, of the $16.50 received by cash croppers from wage earners within the District, $14.60 was received by the household that is only now establishing a coffee garden and as yet, derives no income from it.

434 438 each Saturday morning doubled in the 18 months prior to this study but still only about 15 families per week sent in produce for sale. Larger numbers of Yega attended on Saturdays following the fortnightly administration pay day than on the alternate Saturdays. Cash income obtained by Yega also more than doubled in the same period (from a weekly average of $1.35 per participating family in January 1963 to $2.80 per family in July 1964).

434 431 iii. Gifts from relatives in paid employment. In 1964 this was the main source of cash income of most Yega villagers. Almost invariably the young men in paid employment sent monetary gifts home to their relatives in the village. A sample group of 18 such workers earning an average $610 per annum in cash or kind remitted an average of $90 per head per annum to their relatives in the villages.

434 525 iv. Gambling. As gambling is illegal, people were reluctant to divulge details. Nevertheless, for some men gambling constituted an important source of income. The stakes in domestic games of 'Lucky' were usually betel nuts, but in games with outsiders always cash. Yega gamblers aimed particularly to relieve the workers on nearby plantations of their wages. On one observed occasion a Yega man won $86 in one night in such a game.

434 Sources of additional income for two sample groups are summarized in Table 3 below:

Table 3

Additional sources of cash income of Yega villagers during 1962

(431)

Classification	Personal effort	Gifts	Other*
Holders of cocoa blocks (sample of 25)	8	17	2
Non-holders of cocoa blocks (sample of 14)	8	9	Nil

* This includes savings and gambling (one informant in each). Some persons received income from two sources.

434 431 The holders of blocks received more gifts than non-holders of blocks. The main reason for this is that most blockholders had sons or brothers of working age. Many of these worked in paid employment and, by making gifts to blockholders, were ensuring reciprocity of gifts in the future. Table 3 shows only gifts received by people living at home. Monetary gifts were rarely given by the village people but when the 'outside workers' returned for holidays in the village they were fed, boarded and feasted free.

494 511 dents of the village and £7 from non-resident kin. Of the gifts of money £3 came from resident kin and the balance from kin living elsewhere. The feast donations (with the exception of a few shillings) were given by non-residents, some of whom were kin, but most of whom were acquaintances living within a radius of several miles.

Food and household costs constitute the major item of expenditure, but a considerable proportion of the imported food is purchased for funerals, feasts and the entertainment of visitors. Part of the food costs may therefore be considered as costs of meeting social obligations. Within the local community, money is distributed through domestic obligations to provide for visitors and kin, and also through ceremonial (usually related to life crises) when cash and other property are 525 exchanged. Probably the greatest cause for its circulation within the community, however, is gambling. Men who are earning wages usually gamble at least once a week and from observation of several games it seems that each player brings from 3/- to £1/-/- or more. Although the winner for the evening usually gives back a token sum to each loser, he retains most of the money himself. It is understood that gambling is widespread in the area.

511 494 Seven of the eight families had some cash in hand (we have shown this as "savings" though it was not necessarily specifically set aside as savings). The councillor looked after his own money, most of which he kept in a savings bank account. Only one other man had a savings account, and in it he held both his own and his son-in-law's money. The son-in-law felt reluctant to ask for money from the account except to meet social obligations. Two half-brothers (one married and the other single) gave most of their money to their father who seems to have made the decisions about expenditure for the extended family as a whole. The two other men in the village were responsible for looking after their own savings. As with non-monetary valuables, cash and bank books are usually cared for by women, but they have little or no say in the purposes for which the money is spent.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.
423

Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[22] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sausha; Crocombe and Hogbin describe Sausha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship
[574] context, by persons from another district. This was a group from Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Carombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting
[572] rights at Ajoro. I could not find other references to ancestors beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

659 When the members of the "Waseta tribe" were accommodated at
731 Ilimo, they were not only the guests of the government which
574 supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-253, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

12: Crocombe OJ23 Orokaiva OJ23

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[For information on birthday parties, see Category 561.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

461 regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.
**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

527 574 484 A tendency for men to regard the season as a time for renewing social contacts became more apparent in the week of the New Year. Although New Year's day was not specifically observed, the men who were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between villages in the area appears to be usual at this time of the year. [438] Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

Another 30 per cent of the time is devoted to traditional dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

(b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCGS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepe people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [796] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512

mainly on Wednesdays on the rare occasions when it is performed; services are naturally on Sundays though there is a lesser concentration on Friday due to the effect of the two Good Friday services and the occurrence of Christmas Day on a Friday in 1964. Council work on cleaning household areas is spread much more over the week than the ideal suggests, but communal cleaning of the village square is usually restricted to Fridays. The ideal of Sunday as a day of rest is not entirely borne out, in reality. The mean duration of activity on Sunday is 5.7 hours, little below the mean for the other days, but the activities pursued tend more towards leisure than on other days. Thus, 1.2 hours are taken up in social obligations, 0.6 hours in church services and 1.1 hours in hunting and fishing; the latter is often associated on Sundays with 'picnics'.

[527]

The 'ideal' pattern excludes many of the village activities, but some of these also are carried out more on certain days than on others. Marketing is restricted to the Popondetta market-days (Wednesdays and Saturdays). The increased emphasis on hunting and fishing on Fridays is designed to provide commodities for sale in the major Saturday market. The incidence of paid work is naturally almost entirely on weekdays since employment of labour is almost exclusively by Europeans; the small amount of weekend work was on the construction contract at the airstrip. As explained, the concentration of hours of sickness on Wednesdays is due to the fortnightly infant welfare clinic at Ijika. Social activities other than visiting and those associated with deaths are now more or less confined to the weekends, often extending from midday or earlier on Saturday to after dawn on Sunday. The only other activity with a notable periodicity is purchasing, this being mainly carried out on Saturdays, either after marketing or as an isolated activity.

The duration of activities

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Table 7:11 shows the mean duration, in hours, of each activity and the standard deviation from the mean. It also shows the mean time of day at which each activity occurs, in terms of the mean mid-point of the period shown in the 'duration' column and the standard deviation from this mean. There is clearly a wide range in the duration of individual activities and in three cases (the weeding of minor crops, entrepreneurial activities and church services) the standard deviation exceeds the mean duration. The mean duration of a session of forest clearance is three hours, but two-thirds of all sessions last between one and five hours.

The mean duration of sessions devoted to specific garden tasks, such as planting or harvesting taro, is comparatively short, since several different tasks are commonly performed during a single visit to a garden. People usually leave for the gardens in early or mid-morning and return in mid-afternoon. With cash crops a whole

[TEXT CONTINUED ON PAGE 153]

472 achievement of several ambitions, including the acquisition of a carpenter-built house. He spends more time on cash-producing activities than any other villager and is the recognised spokesman in all village-level contacts with the external agencies. Through his experience he was able to win and fulfil the construction contract at the airstrip, as well as arranging for the sale of hardwood trees to the Administration, which others could, but did not do. Half of the time spent on entrepreneurial activities is on the trade store and the rest mainly on the contract. As will be shown in Chapter 12, these activities are more rewarding than cash cropping, and the entrepreneur spends less than 0.5 hours a week on his coffee holding and 1.0 hour a week on copra. Paid work and the other main source of cash, marketing, account for only 1 hour a week. Altogether, involvement with the monetary sector and external agencies occupies about 19 hours a week, or 37 per cent of the total - a higher proportion than for any other villager.

[512] [461]

461 The most time-consuming activity after entrepreneurial activities is hunting, although prior to his purchase of a shotgun in July Lawrence spent very little time this way. This and other food-producing activities occupy as much time as paid work and entrepreneurial activities and double the amount spent on subsistence gardening. Productive activities in both sectors account for almost 42 hours, 80 per cent of the weekly total.

It is clear that for the entrepreneur cash-producing activities have the highest priority once subsistence is assured. In this connection, it is noteworthy that during the dry season, the intensive labour by all the men on construction of the copra-drier took precedence over other activities, but when a pig invaded his garden Lawrence spent two days in fencing and only then resumed construction of the drier.

512 [527] [431]

Marjorie. This woman is aged 21 and is married to Embogi's eldest son, who began establishing a coffee garden during the survey. They have one son, and held a party to mark his first birthday in March. Marjorie was born in Hoborita village, as were four other Ikonda residents, and she was educated to standard V. Her father's brother is a teacher at Popondetta mission school, where several other relatives also work and she spent a considerable amount of time visiting these and other kin, usually taking gifts of garden produce and receiving in return storebought foods and cash. In addition to the average 2.7 hours a week spent in this way, she was absent for 13 days on visits and for another 6 days on mourning and funeral obligations when her father and her husband's mother's brother died within a week of each other. Her frequent visits and gifts to her kin were

[TEXT CONTINUED ON PAGE 164]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

292 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic
●531 creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who
301 may spend days working out the precise effect he wants. Similarly the *hambo*
531 are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body
[778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 *Music, Dance and Song.* Today the great occasions when body decoration is
533 performed mainly coincide with Christian festivals – Christmas, Easter, and name days of saints. But these dates tend to be close to the festive periods in the
535 traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

142
302
287
● 531

Fig. 8. *Bark-cloth (tapa). Each manufacturer has her own special designs traced in red and black dyes on the white material*

[P.11-B]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

292 531 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who 301 531 may spend days working out the precise effect he wants. Similarly the *hambo* are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body [778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 ●533 535 *Music, Dance and Song.* Today the great occasions when body decoration is performed mainly coincide with Christian festivals – Christmas, Easter, and name days of saints. But these dates tend to be close to the festive periods in the traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gaga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gaga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gaga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.A

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*suruka*) to his nephew. The ornament, *suruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

431 457 Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

574 Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the [178] lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not [439] concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods [262] are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular [535] descent group. Most take place during the afternoon and evening [533] and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is [534] involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food [77] or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

438 In addition to these exchanges with kinsmen, co-residents and [437] neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 8.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution. 504 292 177

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves. 504 191 198

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words. 504 534 504 533

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films. 504 535 [177]

Of a total of approximately 130 adults present, only about 20 were woman. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows. 504 562

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m. [533] [535]

731 retrospective look at the pre-eruption way of life."

Though most of the contemporary evidence tallies with the accounts of Belshaw and Keesing, I should refer to two documents both [789] dating from 1951 which add some subtleties. The first is a short manuscript by Fred Kleekham, agricultural officer, Popondetta, in which he says that "the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings" (of Orokaiva responsible for the murder of missionaries). I tried unsuccessfully to find Orokaiva who still hold this belief. Mr. Kaad had not heard of it and suggested that as Kleekham was mostly working in the coastal region of the Northern District, he may have heard this interpretation of the eruption in that region. In any case, the explanation is worth noting because, once a disaster has been attributed to the anger of a supernatural agency, the causes of that anger are open to many plausible surmises.

797 Father Albert McLaren, while at Ilimo, composed two songs one
533 of which is still widely sung among the Orokaiva and even elsewhere, as it is included in a songbook distributed to primary schools in the Territory of Papua.

1

We were at Sangara
gathered together
With all our brothers
Living together

Chorus: Have mercy on them
Lord, we live in your hand

The mountain was made by Thee
It was not seen by us before;
Lord, when it appeared
We were wounded.

Chorus

O Heavenly Father,
Look on Thy servants
Who are in Paradise
In Thy Glory.

Chorus

When the mountain was shaken
They were watching
With their children
And were buried together

Chorus

In the land of Sangara
Are the bodies of our brothers
As though they were sleeping
But we shall see them again in the end

Our brothers on earth
Had many temptations
They went up to Heaven
In Thy Glory

The evening was bright
On the hills of Ilimo
But our thoughts
Are always with our brothers

Father Albert described to me his own experiences with the eruption. He lost his own brother who was with the mission, but he was saved because he had been sent to Isivita for the service on the day of the eruption. He was able to escape by running down from Isivita. When he came close to the village of Simbeki, the darkness closed in. When the light returned, the clouds were red with flame or fire. When people saw this, he said, they thought the end of the world had come and this cloud was the fire of the Last Judgment that had come to burn them. Nobody knew anything about Higaturu being a volcano; or even of the existence of any volcano. They noticed the trees that were blown up, the branches broken down, the little hills of ash covering the valleys and people thought: this is the end of the world.

Father Albert said the Orokaiva did not use to have an idea of the end of the world; it was taught by Christianity. After the disaster, the people discussed it a great deal; through the disaster, God had shown the people just what was meant by the idea of the end of the world. I asked Father Albert whether he regarded the disaster as God's punishment for sins the people had committed, but Father Albert dismissed this idea: he did not think God would punish the innocent along with the guilty. This conversation took place many years after the disaster and can therefore hardly serve to refute the notion that in 1951, the eruption was regarded as divine punishment.

Several government officials charged that the Anglican Bishop actually encouraged people to think that the eruption was a visitation of the wroth of God, as they had not followed the laws of the Church of England. They even add a variety of anecdotes, in which the Bishop threatened that if some demand of his (different in each anecdote) was not met, he would make the mountain erupt again. After meeting Bishop Hand personally, I must confess I am rather sceptical about these stories. The Bishop felt that some Orokaiva believed the eruption was a divine punishment. He stated to me that in his own sermons he

177 of the de[illegible] remained basically unchanged, Christian burial rites
[715] and cemeteries are generally used in the belief that they are
efficacious in controlling ghosts. Girls were "shown to the people"
[764] after initiation, preferably on the mission station during the Easter
dances. The kere which was a women's initiation dance, was also
[881] performed on a mission occasion (the celebration of St. Barnabas Day,
in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form
881 of initiation ritual to the Orokaiva? This extramural activity,
177 performed in the dead of night, signified a little more than the
intertribal status rivalry analysed earlier in this chapter. The
● [533] text of the songs gives no obvious clues to their significance at the
present time. Though it was made up of at least four or five languages,
due to diffusion of the cycle through the Northern District, I managed
to collect a translation of most of it during a tour of Port Moresby
when we visited knowledgeable members of various Musa River tribes.
The songs evoke a series of phases in a woman's life, stating symbolically
her role in initiation, courtship, marriage, childbearing and feasting.
They are very rich in symbolic content which is not relevant here. But
they contain no message that can be related to any modern millennial
or cargo cult. During a visit to Uiaku, in the Collingwood Bay district,
my wife found that the old women in that village knew the songs but
not the younger ones. This points to diffusion from the Musa to the
Collingwood Bay district some decades ago. All this evidence confirms
the mission teacher's own explanation given to me that he introduced
this cycle in order to keep old traditions alive, in order to give more
strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by
881 the performers especially in the very first dances. They might at that
177 time be doubtful about dance movements and words but not about the
781 demeanour appropriate to the impersonation of spirits. At the very
first practise, even the young girls knew the right bearing, intonation
and rhythm. This was not truly the introduction of an alien ritual;
the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to
771 lend it the ambiguity that was evidently intended. It was not the
177 purpose of the mission teacher to set up this pagan ritual in opposition
to Christianity but rather to bring about its continuity in a Christian
997 order. I have already shown in earlier chapters that the Christian
dispensation is conceived as not only a religious but also and importantly
a socio-economic one--that Christianity, wealth and wage labour are
perceived as part of the same complex. If it can be made to accommodate
women's initiation ceremonies (after jettisoning, of course, those
aspects to which the clergy takes exception) future generations will
have the strength of the forefathers. This desire for greater
strength, in a physical and numerical as well as spiritual sense,
was often expressed to me.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Keesing (1952:18) agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life."

A great deal of evidence supports Belshaw and Keesing in their suggestion that in 1951 the Orokaiva ascribed the eruption to the anger of the Christian God and thought they had brought this anger on themselves by various transgressions. Orokaiva informants reported that this view of the eruption was widely current at Ilimo evacuation camp. It is reflected in a song about the eruption which is still sung by Sivepe youth. This song declares the omnipotence of God and man's absolute dependence on him. It also attests to a wholly Christian eschatology: the abode of the dead is Heaven, where the living will later meet their brothers who died in the eruption. The song admits the guilt of the dead ('our brothers on earth had many temptations'), but the strongest emphasis is on the suffering of the living through the loss of their 'brothers'. Unlike Job, the singer is far too polite to contend with God and criticize his actions. He does not openly and clearly identify God as the author of his sufferings, but God's responsibility is subtly implied.

The rationale of this explanation is not obvious. Quite clearly those who believe that God and not Sumbiripa was responsible for the disaster have some belief in Christianity. In response to contact with the white man they have developed an ideology supporting the work of the missions. But how do they explain the eruption? It seems very clear that in 1951 many explained it as retribution for their lack of respect for the Christian God. But Orokaiva Christians interviewed in 1966 and 1967 rejected this explanation as resting on a misunderstanding of the nature of God. Father Albert, who composed the song referred to above, was one of those questioned. He said that many of those who died in the eruption were little children. He did not think God would punish the innocent along with the guilty. On the other hand, he did ascribe a divine purpose to the eruption. Father Albert said the Orokaiva used to have no idea of the end of the world; this notion was taught by Christianity. After the disaster the people discussed it a great deal: when they saw the sky darken and people dying from the blast, they thought the end of the world had come. God had shown them what the end would be like. In other words,

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Though Monckton reports (1921) a few large villages in the early post-contact period, it is only recently, in response to Australian pressure, that multi-clan villages, with populations ranging from 100 to 500, have become common. Most of the plantations found in the Northern district have been established by Australian ex-servicemen supported by government loans. A number of Orokaiva have been drawn to work on these plantations, others to jobs in Popondetta, others again to service with the police, the armed forces or employers outside the district. Such migration has substantially reduced the proportion of the male village population group.[2]

2. *Technology and Aesthetics*

We possess only the briefest description of Orokaiva industry (in Williams 1930). Although I did collect additional data, the traditional technology has been transformed to such an extent that my data must needs be fragmentary. The only axes and adzes now in use are made of steel; most of the various stone-made cutting tools described by Williams are no longer in use, being replaced by the ubiquitous bush knife wielded by young and old, male and female. One exception is worth noting, if only to emphasise an element of continuity: cockle shells are still used for the scraping of coconuts and for the shaping and decorating of pots. Most of the needles used by women are still made of flying fox bones (*poma*), even though a few needles have at times been obtained from the Mission. While files for sharpening tools are necessarily made of steel, rough leaves still serve as tools for scraping pots, smoothing down wood, etc. The same mixture in the use of basic tools is found in agriculture, hunting, and fishing: we still find the digging stick but also the axe; traditional hand nets and fishing spears (with steel tips), but also snorkels. For hunting, traditional devices have been almost entirely replaced by the shot gun. The old technology is still basically intact in those few industries which are directly related to ceremonial life: the making and decorating of loin cloths, feather headdresses, ceremonial weaponry, musical instruments such as drums. Certain other specifically feminine artifacts (mats, baskets, string bags) are still produced and in use, while much of the contemporary Orokaiva house-building technology is traditional, Fine wickerwork for ceremonial objects (armlets, spear decorations, etc.) is still made by some of the older men. Orokaiva women have almost stopped making pots, though this was an important industry in pre-contact times. While trade goods are used for everyday purposes, such pots as are still made serve as gifts to women at the time of marriage. They are kept for sentimental reasons, but we were able to see only very few.

An everyday Orokaiva meal consists of taro, often with a few vegetable condiments: coconut milk, cordyline tips, or edible pitpit,[3] or one of a number of herbs, sometimes of supposed medicinal value. Much care is devoted to the cooking of the taro and variety is provided partly by a choice from many varieties of taro growing in most gardens. In the dry season, any of a number of subsidiary foods (sweet potato, German taro, yam, banana, breadfruit and several others) may be added to make the taro stretch further. Meat or fish is eaten only rarely, usually on festive occasions. Foods like tea, sugar, bread and salt are also reserved for such occasions. Although several traditional methods of

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.A

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *agumu* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution. 514 202 177

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves. 514 191 198

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words. 514 534 514 533

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films. 514 535 [177]

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows. 514 562

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m. [533] [535]

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[162] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

535 About three months before our departure from Sivepe, a mission
[123] teacher told me that his wife intended to teach Sivepe women a coastal
[197] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
●[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practise,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
● 534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

292 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic
531 creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who
301 may spend days working out the precise effect he wants. Similarly the *hambo*
531 are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body
[778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 *Music, Dance and Song.* Today the great occasions when body decoration is
533 performed mainly coincide with Christian festivals – Christmas, Easter, and name days of saints. But these dates tend to be close to the festive periods in the
535 traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction)...
In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

●[535] Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had [623] [115] been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,S (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tribes (twelve items), including in his list many *hambo* still in common use. 301
Williams (1930) criticised this account on two grounds: some kinds of *otohu* 881
were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams 881
reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed [535]
up in full dancing regalia, after which they make an impressive début at the village dancing ground. The ritual is known as *kogumbari*. It is performed by an [292]
expert whose main concern seems to be with the aesthetics of dressing up, and [301]
who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[2] this is not part of the [431]
initiation ritual as such, which occurs immediately after *kogumbari*. The dressed [301]
up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*aguma*) who recite their 881
feats of war, their killing of victims. Initiates sit on a row of sticks laid on the 301
ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother) [729]

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Another 30 per cent of the time is devoted to traditional
dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

(b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCCS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents. 512 461

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee. [464] [465]

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house. [883]

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with 517 [461] [533] [535] [177] [578]

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution. 504 292 177

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves. 504 191 198

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words. 504 534 504 533

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films. 504 535 [177]

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows. 504 562

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m. [533] [535]

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Men dancing at the feast

504 when three young single women joined in, though each danced sepa-
562 rately and without appearing to take any notice of the men or to
595 be noticed by them. Only three mixed couples were seen dancing during the whole evening, the partners in each case being real or classificatory siblings. They danced ballroom style, which the girls had seen when away at work as nurses and domestics. On some occasions two men danced together, but for the most part each man danced individually, following his own style and apparently oblivious to those around him. Traditionally, married women do not dance, though single women dance in supporting roles.

504 It was clear that while music and dancing were based largely on
177 a very limited conception of Polynesian patterns, dress and other behaviour was based on European models - even to the extent of several of the most prominent citizens handing out Rothman's king size filter cigarettes! Though traditional prohibitions (such as those against married women dancing) prevailed, there seemed to be a conscious effort not to behave as an Orokaiva, and some of the local people who did not participate explained that it was because they did not know how to dance in the modern style. Over all the men engaged in nontraditional activity much more than the women did.

504 Shortly after daybreak a church service was held, breakfast was served, and the party was over. The remains of the food was distributed to those relatives who had contributed most food and

797 permanent gifts of land: the populous mission village, if granted a
177 permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

[535] The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

575 The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among
[593] the Orokaiva, though the women do certainly at times act as a solidary
[626] group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

yet been completed (which was true) and that these ought to have priority. The women then became impatient; after which they explained to me that the women had talked to them insolently and they had told them to build the house themselves (which was a male task; it would have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

About three months before our departure from Sivepe, a mission teacher told me that his wife intended to teach Sivepe women a coastal women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence. I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

At all these practises, the mission teacher sat and watched at the centre of the stage. His wife played the role of the teacher; later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. How in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
●[535] a little older (45-55 years). Hence the dance group formed in Sivepe
[197] is at present almost wholly composed of men of the Jegase clan. The
[871] age difference happens to be very significant in various indices of acculturation, as the first school was established at Sasembata in
[167] 1945, and the custom of looking for wage labour outside the district did not become widespread until about the same time. While some Jegase
[191] people know some English, none of the Seho people over 35 speak any at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[199] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepa, I saw a village with new houses, built on the govern-
ment's instructions, but I was told nobody lived there except when
[361] there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
in preparation for a feast (viz. Williams) was also, according to
178 Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 602 608 [824] The rejection of both the cooperative and the competitive relationship applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a fruit is a ritual that is sometimes performed between a married couple; for example, when the community has decided to hold a feast. It symbolizes that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 [437] (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 574 Similarly, feasting occasions between villages often result in *otavo* relations. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

● [535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a rationale, satisfying to themselves, for the behaviour patterns they are now adopting in response to the impact of the white man's power? This is the question to be explored in the next section of this chapter. I shall put foward the suggestion that the Orokaiva actually developed an interesting and satisfactory explanation of recent cultural changes, using the concept of a new *dema* who set new exchange cycles into motion. In demonstrating this point, I shall quote at length from informants' statements so as to indicate clearly the nature of the primary evidence on which I have drawn.

2. *A New Starting Mechanism*

I shall begin by quoting a tape-recorded speech made by a member of the Higaturu local government council at a meeting held at Torogota village, Sasembata valley.[2] The reader may well doubt the sincerity of this speech, as I did myself when I first heard it. I discovered, however, that councillors frequently address meetings in similar terms. Trusted Sivepe informants told me that the recorded speech is typical of what that councillor usually said. It was elicited when I asked the men of Torogota for tales about olden times (*iji matu*).

The councillor started with a sketch of the wars of his forebears. His 'grandfather' Bohuka, with a group of migrants from Waseta, and other villages, drove off the inhabitants of a village called Hingo Kakasita and settled on the land of that village:

> Today his grandchildren call this our land, but they are weak grandchildren of strong ancestors. . . . All this is communal land (*company enda*) conquered by our forebears. As a new day has now arrived, I tell you to be united. Therefore you must follow my instructions. The councillor for Sasembata is speaking. Everybody who speaks north, east, south or west should now stop.
>
> Now I am speaking about this old village here. I am Councillor Ase. I am saying: follow this word and hear it. I shall therefore tell you how they (i.e. the Europeans, the *taupa*) talk: 'Those men were all felling the tree. The man whose name I mentioned was a fighting man. His enemies killed the wayfarer like a dog. The Waseta people beat and chased them, came here and stayed.'
>
> I am councillor Ase. Here we live, people, in this very old village. We are the descendants of fighting ancestors, therefore we live here. We say that we live in the land where the *seha* grows (a useless bush tree) or where the *inota* grows (a useless cane looking like a sugar cane) or on *gindiri* (i.e. sandy, infertile) soil. We stay in an old village, but people are saying we are living on communal land; we are staying on a place we took during a raid. They are saying: 'The Waseta men had weak descendants. They stayed here because they were defeated.'

A little later during the same recording session, Councillor Ase spoke again. This time he started with a description of various magical powers traditionally possessed by the Orokaiva. He continued:

> In those days people did these things. They did not take jobs for only Jesus Christ gave jobs that people could take. The village constable bound people (with handcuffs) and took them if he believed they were telling lies. He took them to Kokoda and Court was held; then they would start work . . .

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. There [illegible] promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20) we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

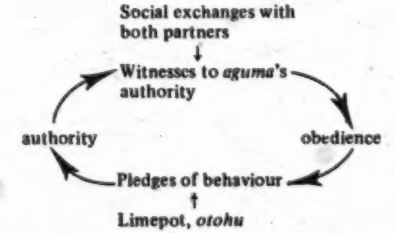
A [See p. 135, Cat. 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

729 they would always add credibility to the words of the *aguma*, as their authority
881 would not be questioned by the initiand.

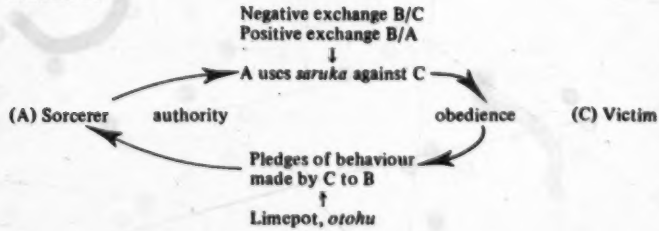
[537] The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



754 If the initiate should later break a pledge, the wronged person may call upon
626 a sorcerer whose position I have suggested to be symbolically equivalent to that
[628] of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a rationale, satisfying to themselves, for the behaviour patterns they are now adopting in response to the impact of the white man's power? This is the question to be explored in the next section of this chapter. I shall put foward the suggestion that the Orokaiva actually developed an interesting and satisfactory explanation of recent cultural changes, using the concept of a new *dema* who set new exchange cycles into motion. In demonstrating this point, I shall quote at length from informants' statements so as to indicate clearly the nature of the primary evidence on which I have drawn.

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .
>
> In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

I shall begin the analysis of taro symbolism with one myth especially rich in content, which includes all of the five characters, some of whom, in one way or another, appear in all the myths. It also stands out by the clarity of its detail on the cultivation cycle. As I proceed, I shall discuss some variant myths which emphasise certain themes omitted in the main one or convey the same message in different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

child into the water because it was bad,' she replied. 'I am going to collect cabbage.'

(*Commentary*: The reference to the water is the first of a series of apparent lies which always hide a symbolic truth. In this case it is easy to see the meaning, as several myths exist linking the origin of the taro with water. In one myth a woman was prodding the ground with a digging stick. She found water there (and this was the origin of water); later taro grew in that spot. In another myth a boy and girl who were siblings were washed away in a flood on a coconut tree. At the place where they finally landed they discovered taro. Taro, being identified with a human child, is thought of a growing in the water of the womb. The growth of the taro plant requires a very great deal of water and heavy rain so that the growing plant actually lives in a watery environment, which thus resembles a womb. In this sense, her statement is true.)

4. 'I am going to collect cabbage.' Having said this she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said: 'Wife why did I see you cry when you climbed to collect cabbage?' 'When I went to collect the cabbage the sap squirted into my eyes and I rubbed them,' she said. 'You are lying,' he said.

5. When the children were fully grown, she took them to the mountain far away. She told them their history; 'therefore, I must leave you behind and you must stay,' she said. When she joined her husband again, he asked: 'Why did you stay away so late?' 'As soon as I had done my work and planted my seed (*bere kovitie*), I started on my way home,' she said. 'Woman, you are telling lies,' he replied. When the man understood what his wife had been saying, he went away.

(*Commentary*: When a taro is fully grown it begins to grow shoots on the side of the main rhizome. It is then the duty of the woman to take cuttings from the plant. Strictly speaking these cuttings (Orokaiva: *bere*) are tops of corm-bearing bases of petioles (*Vide* Barrau 1965). These cuttings[1] are taken to a new garden being established, usually, at some distance from the old one. When the husband heard his wife saying this, he understood at once that she had been hiding the offspring she said she had thrown into the 'water'. He could not know, however, that his wife had had twins and this became his undoing.)

6. The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling (*du ate*) had gone to collect taro while the male sibling (*du bite*) was lying asleep with his chest turned upwards in the shelter (*gaga*). It was there that the man found him, understood at once he was his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

(*Commentary*: I do not know whether the narrator of the myth made a mistake when he said at the beginning that the hidden children were 'male twins'. There is no doubt whatever that at the stage the story has now reached they are siblings of opposite sex. While we cannot rule out the possibility of a narrator's mistake, my informant was an unusually reliable one and it is quite possible that there was an actual change of sex. This will become clearer later when we analyze the significance of male and female roles in this tale. The horticultural reference in this passage is to ordinary harvesting routine. The woman digs the taro and places them in a *gaga* or shelter where they stay until

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 she takes them home. The brother is clearly identified with taro growing in the
773 field.)
244 7. The story tells in more detail than is relevant here how the sister learned
539 what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers.
[262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were
[715] discussing the jungle. It was above all a place where the ghosts (*sowai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sowai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[715] We have already met the same idea when discussing the taboo on taro-growing
[784] on a dead man's land. This taro is effectively contaminated in the same way as bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *guga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *guga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *guga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

In addition to father, mother and twins, the myth contains a fifth character, the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

If female nature, in its pure state, is found in the taro garden and male nature, in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

The analysis of this myth has enabled us to understand more precisely the sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'. The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

Gifts of taro may mediate either the establishment or perpetuation of a social relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by every Sivepe household every day. In the twenty-eight days for which I took

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *divine* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

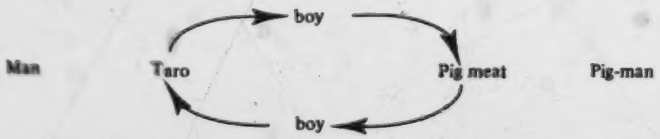
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

793
●539
825

A man and a pig (apparently a pig in form but really a man) were up a tree together after fruit . . . the man gave the pig a push and he fell down . . . helpless. Another man came along with a dog . . . the Man-pig cried, 'Hold your dog or he may bite me.' He then asked this new man to build him a house . . . this done he asked for food . . . and an arrangement was reached by which this man always sent taro, etc. from the village to the Pig-man's house . . . and in return received a brought real pig. But the man grew lazy, and once sent his son with the taro. This so annoyed the pig that he tried to kill the boy . . . but he made his escape back to the village . . . After this the Pig-man thought the villagers would want to kill him . . . so he took to the bush (Notebooks 1923, W. 56).

This myth is concerned with the question why man and pig are differentiated species with separate assigned domains.[2] The pig-man of the myth (like Totoima discussed in an earlier chapter) is clearly neither fully man nor fully pig, but has an intermediate position. The assumption appears to be that in primeval time the present discontinuity between the species man and pig did not yet exist. The myth describes how this discontinuity came about and distinguishes two stages. At the outset there was no differentiation at all, a state symbolised in the myth by the image of pigs being able to climb trees. But even then they were less capable of arboreal life than man; man pushed the pig from the tree, thus inaugurating the first state of differentiation. An exchange relationship was now established whereby each partner offered the other the products of his own capacities. But there was an asymmetry in this relationship, as man offered a house and taro, whereas pig was able to offer only his own offspring. This state of equilibrium may be expressed by the following diagram:

MODEL 21



Except for the friendly intervention of the boy, this diagram represents the pattern of exchange that persists to the present day, as wild pigs take man's taro and man takes the pigs from the bush. But man defaulted in this exchange, omitting to send taro. Man thus set in motion the usual process of breaking a relationship. He sent the boy but the response of his neglect was not pig meat; it was anger and an attempt to kill the boy. The boy now ceased to visit pig-man: the social relationship between man and pig-man ceased and thus pig-man, bereft of social relationship, ceased to be 'man' at all but became fully pig. From that time on pig (no longer pig-man) kept to the bush and the exchange between man and pig was no longer friendly but hostile. Pig still takes man's taro but it is no longer given to him; he steals it from the gardens. Similarly, man still takes pigs, but he hunts for them in the bush.

[792] The separation of man and pig leads immediately to the division of the world

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 824 539 But this handsome young man, also, is pierced by the girl's breasts and killed. The brother buries his brother-in-law, then kills his sister and buries her beside the other grave.

After a mourning period the brother takes his wife to the two graves. They find a cocopalm in full bearing above the sister's grave. An *areca* palm has grown over the grave of the young man. Heaps of dry nuts are lying on the ground. That is how these two palms originated. He says:

> Wife, as we come close, we see coconut and *areca* growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry *areca* nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune (*embavo*) and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the *areca* growing on *dambo's* grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them, they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, cocopalms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths (*peperuma*) which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I began to understand that my sister had killed the men I had carried to their graves and buried. . . .
>
> When a man has collected *areca*, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the *areca* is a girl; for this reason, girls give *areca*.

773 824 539 582 On the level of social structure, this myth is concerned with the Orokaiva institution of sister exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5 per cent of all marriages), sister exchange marriages are strongly idealised, as I have shown elsewhere. In this myth, a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can sleep safely, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister exchange marriage.

773 824 539 On the level of social exchange, the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

	Areca		*Coconut*
1(*a*)	The man fetches the nuts from the tree.	1(*b*)	The woman *helps to fetch* the nuts from the tree.
2(*a*)	The man gives the nuts to the woman.	2(*b*)	The woman cooks the nuts for the man.
3(*a*)	The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*)	At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 824 539 suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that, in ritual, girls give *areca* to men, but the opposite statement is omitted, viz. that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, *areca* feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a 'fact', but is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra; – *ainge eto* ikena.

This passage, (translated above, p. 17) contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man. *Because* coconut belongs to a man, *therefore* coconut is masculine. *Because areca* is a girl, girls give *areca*. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

When I heard this tale, I could not help arguing with my informant. I said: if the coconut grew out of the girl's grave and she later gave the coconut to a man, would it not follow then that the coconut is feminine? My informant received this argument with a tinge of pity. It proved to him, if any proof were needed, that white men are indeed quite incapable of abstract reasoning. It took him some time to understand what problem I could possibly be having. Finally he said: 'The girl intended these coconuts as gifts for a man; therefore, they must be masculine.' At that point I remembered I had heard this argument somewhere before: in Levi-Strauss' introduction to Marcel Mauss, *Sociologie et anthropologie*. If we produce something that is *intended to be given away*, it was called into being by a prior relationship between donor and recipient, and could not be utilised by the former without losing its predetermined nature.

We find the same line of thought elsewhere in Orokaiva culture: pigs cannot be eaten by those who reared them because they are, from the beginning, set apart as gift objects. The most striking and intimate instance may be found in a myth of a woman who has a detachable vagina. She pretends to her husband she has lost it: 'I dropped your vagina in the water.' The husband looks for it between the stones of the river: 'I am looking for my vagina.'

In all these cases the gift object partakes of the nature of the recipient. However, the narrator appears to follow a quite different line of reasoning when he says. 'Because *areca* is a girl, girls give *areca*.' There is an apparent contradiction here, resolved only when we recognise that two different types of gift must be distinguished – perhaps we are allowed to call them metaphoric and metonymic. If we call a coconut a man or a man a coconut, we are using a metaphor. Furthermore, if we proceed to call an *areca* 'a girl', we are setting up a metaphoric opposition (coconut/*areca*) which corresponds to the real opposition (man/woman). When Sperber (1968) speaks of 'code structures', he is

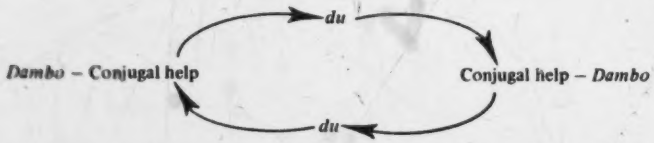
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

principally referring to classificatory systems built up from such metaphoric oppositions. When I use the term 'metaphoric gift', I mean a gift about which we are told in a story, the message of the story being that gift and recipient are metaphorically identical. The point of the story is to establish the symbiosis of men and women, the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bullroarer, golden apples, mirror, knuckle-bone, tuft of wool) which de ined his nature. In the same way, in Orokaiva myth, men are given a coconut nature and women an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognised as a man because the palm germinates slowly and the fruit comes to maturity slowly ('it comes slowly'). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. *Areca* may be recognised as a girl because it germinates and comes to maturity quickly – the fruit matures faster than the coconut. Likewise woman is quick to be sexually aroused and to feel desire for a man. In this analogy the botanical facts are evident but the psychological generalisations describe no more, perhaps, than Orokaiva role expectations.

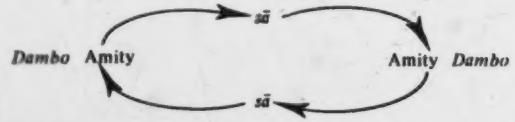
We may clarify the myth and its philosophical message to a certain extent by an analysis on the level of exchange cycles. The fundamental cycle is obviously the following:

MODEL 29



This is the model of sister exchange marriage where two men become brothers-in-law by each giving their sisters (*du*) to the other in marriage. If we now remember the identification between woman and betelnut (*sā*), and the social relationship which is considered normal between *dambo*, we may substitute as follows:

MODEL 30



We thus derive the rather interesting conclusion that the sense of an exchange of betelnut between men is that they are symbolically exchanging sisters. This is a rather bold conclusion which is best left as a speculation to be explored in later

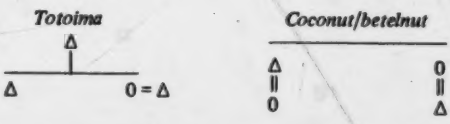
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

enquiries. The same applies to a second conclusion that may be derived from the myth: that a man who gives a visitor coconut to drink is symbolically giving his own sexuality.

6. *Analysis of the Myth*[4]

As these implications of the model may arouse scepticism, a more analytical study of the myth seems desirable. One procedure which may lead to clarification is to compare the coconut/betelnut myth with the myth of Totoima discussed in previous chapters. The structural homology between the two myths is obvious enough. In the Totoima myth a *man wittingly* killed and *ate* a *son*, was transformed into *pig meat*, and distributed to mankind. He *did not intend* to make any gifts nor were any intended for him. In the coconut myth a *woman unwittingly* killed but *did not eat* a *spouse*, was transformed into *coconut*, distributed to mankind. She *intended* to make a gift and a return gift was intended for her.

We may isolate three distinctive features. On the ecological level we find an opposition between two types of symbiosis. The Totoima myth shows a predatory cycle: pig eats taro; man eats pig; thus strengthened, man causes more taro to grow. The coconut/betelnut myth shows the association of two plants always growing together, such that the presence of the one may be thought to stimulate the growth of the other. On the social level we find an opposition between the kin relationships holding between the principal participants. They may be represented as follows:



In the Totoima myth, the critical transaction was between the senior and junior generation, while in the coconut/betelnut myth it was between the male and female characters. Psychologically, the opposition was that in the Totoima myth the protagonists were motivated to kill and eat each other, while in the coconut/betelnut myth they were motivated by sexual love.

Both myths are concerned with exchange, viewed ecologically, socially and psychologically, but in the first myth exchange is diachronic, whereas in the second it is contemporaneous. Where exchange is diachronic, B cannot reach the fullness of prosperity without the death of A, a process symbolised ecologically by predation, on the social level by intergenerational competition and on the psychological level by the desire to kill the father. Where exchange is contemporaneous, B cannot reach the fullness of prosperity without the simultaneous prosperity of A, a process symbolised ecologically by plant associations, socially by the marriage relationship and psychologically by conjugal love.

Diachronic exchange is, on the ecological level, a familiar and empirically verifiable fact. On the social level, however, the competitive and negative aspect

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the father-son relationship is suppressed by consciousness, among the Orokaiva as among ourselves, and is revealed only in dreams, myths and other messages from the unconscious. In contrast, synchronic exchange – as the love between spouses, the amity between affines – is overtly recognised and empirically verifiable on the social level. It is, however, purely imaginary on the ecological level, as plant associations, such as that of coconut and betelnut, *oga* and *eumba*, *puga* and *hoe*, yam and *hamesi*, are not necessarily found in nature but are generally brought about by man for magico-religious reasons. When man establishes these plant associations he is recreating on the ecological level the symbolic equivalents of the social relations on which his prosperity depends.

These social relations are, as we have seen, of two types. In sexual love we find the mystical and irrevocable unity of opposites where objects of mediation become, in the last analysis, irrelevant. But in other social exchanges we find a necessity for objects of mediation establishing a link between self and other. This relationship is exemplified in its purest form in model 29, the model of sister exchange, where a relationship between *dambo* is mediated by an exchange of sisters. But in models 28 and 30 we find important variants, where betelnut and coconut are substituted to mediate the exchange. Precisely because neither of these two products is of any great economic value, they are appropriate for serving as tokens of exchange, a signal of the potential existence of exchange, between any partners, though in the myth and in mortuary ritual this exchange takes place between the prototype-partners of the Orokaiva, the *dambo*. The rather bold suggestion I made at the end of the previous section therefore corresponds to a hidden reality, namely that gifts of coconut and betelnut are symbolic of sexual exchange. It is significant, in this regard, that sisters-in-law address each other by the term *bi*, which means penis.

REFERENCES

1 I am referring here to Radcliffe-Brown's discussion on Yin and Yang as an example of complementary opposition (1951) and to Lévi-Strauss' adoption of this example to present his theory concerning the real nature of totemism (Lévi-Strauss 1962T). Coconut and betelnut, in the myth discussed in the present chapter, may be seen as a further example of the same principle.

2 This type of logic, first developed by Gentzen in 1934, was adopted afterwards by Popper and has been shown to be the basis of primitive systems of thought (Jarvie 1964). It requires no investigation into the truth value of axioms. Gentzen called it 'natural deduction'.

3 Though Malinowski held (1926M) that 'myth serves principally to establish a sociological charter, or a retrospective moral pattern of behaviour, or the primeval supreme miracle of magic', he knew very well that the charter is occasionally 'flagrantly violated' by the actual norms of a society. He also recognised that where we find a fully institutionalised violation of a mythical charter, we should seek an explanation for the discrepancy. Malinowski even took initial steps towards such explanation: 'This violation always takes place when the local claims of an autochthonous clan . . . are overriden by an immigrant clan. Then a conflict of principles is created . . . ' (1926M; reprinted 1954: 117)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 A very similar point was made by Lévi-Strauss in 'Legeste d'Asdiwal'. After pointing out that the institutions described in myths can be the very opposite of real institutions, he argues that any such discrepancy 'implies an admission that the social facts are marred by an insurmountable contradiction'. By investigating such contradictions, we may find means of 'reaching unconscious categories' (1961: 1110–1). This is precisely the strategy I have adopted in the present chapter.

539 773 4 I have followed a method demonstrated by Lévi-Strauss in *Le cru et le cuit* (1964). I have shown that the two myths discussed in this section are isomorphous; I have isolated their distinctive features and posited that they are interrelated. I found that in each myth three levels (botanical, social, physiological) were superimposed and that each level transmitted the same message. Between the two myths, there was an inversion of the codes and the message (1964: 205, 250–2).

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

She warned them to sleep against her back but they would never follow this advice. The girl's brother became concerned and told her he would personally choose her next sleeping partner. He chose his own *dambo,* i.e., his wife's brother. He told his *dambo:* "Because mistakes were made other bachelors have died, but my *dambo,* my true *dambo,* she is going to sleep, she is going to bed. Therefore see that all is properly prepared and that the bed is properly made for sleeping." But this handsome young man also was pierced by the girl's breasts and killed. The brother buried his brother-in-law, then killed his sister and buried her beside the other grave.

After a mourning period the brother took his wife to the two graves. They found a coco palm in full bearing above the sister's grave. An areca palm had grown over the grave of the young man. Heaps of dry nuts were lying on the ground. That is how these two palms originated. He said:

> Wife, as we come close, we see coconut and areca growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry areca nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune [*embavo*] and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the areca growing on *dambo*'s grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them; they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, coco palms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths [*peperuma*] which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

began to understand that my sister had killed the men I had carried to their graves and buried. . . .

When a man has collected areca, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the areca a girl: for this reason, girls give areca.

539
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On the level of social structure, this myth is concerned with the Orokaiva institution of sister-exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5% of all marriages), sister-exchange marriages are strongly idealized as I have shown elsewhere (Schwimmer, 1970). In this myth a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can safely sleep, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister-exchange marriage.

539
824

On the level of social exchange the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilizing one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and areca; (*c*) why the Orokaiva consider the coconut masculine, areca feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

grow. The woman may help by collecting coconuts once they have dropped on the ground and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasize that we are here being taught an ideology which requires the opposition.

The hero's second opposition centers on the culinary use made of the nuts. Areca has no place in the kitchen, in opposition to coconut. The fact that coconut is also often eaten raw would weaken the opposition but is suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that in ritual girls give areca to men, but the opposite statement is omitted, viz., that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, areca feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a "fact," but it is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra;—*ainge eto* ikena.

This passage, translated above, contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man; *because* coconut belongs to a man, *therefore* coconut is masculine; *because* areca is a girl, girls give areca. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

539
824

When I heard this tale, I could not help arguing with my informant. I said: If the coconut grew out of the girl's grave and she later gave the coconut to the man, wouldn't it follow then that the coconut is feminine? My informant received this argument with a tinge of pity. It proved to him, if any proof were needed, that white men are indeed quite incapable of abstract reasoning. It took him some time to understand what problem I could possibly be having. Finally he said: "The girl intended these coconuts as gifts for a man; therefore, they must be masculine." At that point I remembered I had heard this argument somewhere before, in Mr. Lévi-Strauss' introduction to Marcel Mauss, *Sociologie et anthropologie* (1950). If we produce something that is *intended to be given away*, it was called into being by a prior relationship between donor and recipient, and could not be utilized by the former without losing its predetermined nature.

We find the same line of thought elsewhere in Orokaiva culture: pigs cannot be eaten by those who reared them because they are, from the beginning, set apart as gift objects. The most striking and intimate instance may be found in a myth of a woman who has a detachable vagina. She pretends to her husband that she has lost it: "I dropped your vagina in the water." The husband looks for it between the stones of the river: "I am looking for my vagina."

In all these cases the gift object partakes of the nature of the recipient. However, the narrator appears to follow a quite different line of reasoning when he says: "Because areca is a girl, girls give areca." There is an apparent contradiction here, which is resolved only when we recognize that two different types of gift must be distinguished—perhaps we can call them "metaphoric" and "metonymic." If we call a coconut a man or a man a coconut, we are using a metaphor. Furthermore, if we proceed to call an areca a girl, we are setting up a metaphoric opposition (coconut/areca) which corresponds to the real opposition (man/woman). When Mr. Sperber speaks of "code structures" (1968:211), he is principally referring to classificatory systems built up from such metaphoric oppositions. When

26: Schwimmer E-5. (1966-1970) 1974
OJ23 Orokaiva OJ23

I use the term "metaphoric gift," I mean a gift about which we are told in a story, the message of the story being that gift and the recipient are metaphorically identical. The point of the story is to establish the symbiosis of man and woman by the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bull-roarer, golden apples, mirror, knuckle-bone, tuft of wool) which defined his nature. In the same way, in Orokaiva myth men are given a coconut nature and women, an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognized as a man because the palm germinates slowly and the fruit comes to maturity slowly ("it comes slowly"). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. Areca may be recognized as a girl because it germinates and comes to maturity quickly—the fruit matures faster than the coconut. Likewise, woman is quick to be sexually aroused and to feel desire for a man. In this analogy, the botanical facts are evident but the psychological generalizations describe no more, perhaps, than Orokaiva role expectations.

While metaphoric gifts do no more than mythically explain a code structure, metonymic gifts are those which mediate social relations between partners whose nature was established prior to the gift and whose nature is not changed essentially by the gift. In such a case it may be said that the donor "gives part of himself." Thus a girl, whose nature is that of areca, will give areca, and a man, whose nature is coconut, will give coconut. The metonymic gift is the basis of network structures. If the two partners in social exchange are of a different nature (in respect of the transaction in question), then each will use his own distinctive object of mediation as gift to the other. Girls give areca to men, but men give coconut to girls. (I am speaking now of a ritual, not an everyday context.) The simplest kind of network structure may therefore be represented by the following model:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

539
824

Object of
mediation (1)

Partner (1) Object of exchange (1) Object of exchange (2) Partner (2)

Object of
mediation (2)

In the case under consideration, the two partners are man and woman; the objects of social exchange are male sexuality and female sexuality; and the objects of mediation are coconut and areca. The model shows the basic difference between code structures and network structures. The former consist of logically related binary oppositions, whereas in the latter the two partners are engaged in the somewhat magical pursuit of setting up, maintaining, or restoring social relations with one another. Whereas code structures have to do with symbolic thought, network structures have to do with action. There are a great many types of social relationships which are mediated by coconut and areca. By no means all of these are cross-sexual or between affines. Many are extremely casual. Except in a ritual context, the relationship between these gifts and male or female sexuality is extremely attenuated.

No trace of hierarchy can be found on the level of code structure. The relationship between coconut and areca is one of plant symbiosis. The one plant cannot prosper without the other. This makes each of them infinitely dependent on the other, so that neither can be superior to the other. It should be noted that the symbiosis expressed in the myth and in Orokaiva belief is not an empirical fact. The two plants are not, by strict botanical criteria, interdependent parts of the ecosystem. The man/woman opposition is real; the coconut/areca opposition is metaphorical and the symbiosis is imaginary. When the narrator lists rules concerning coconut and areca gifts, the oppositions between sex roles are feeble indeed. The narrator

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

we find that taro resembles them in that taro gifts are ritual statements by which attitudes toward social relations are communicated. We may say, to use Mr. Sperber's terminology again, that in this respect they form a code structure. It will be shown that this code structure is again nonhierarchical, thus resembling coconut and areca. On the other hand, a statistical study of the behavior of exchange partners shows that, on the level of exchange structure, there are rules by which a hierarchy is unconsciously generated between households and between villages. A system which combines a hierarchical network with a nonhierarchical code might be described, in my terms, as political, though incompletely so.

Most taro produced by the Orokaiva (over 90% in the villages surveyed) is consumed directly by the producing household. Nonetheless taro is the most ubiquitous of all Orokaiva objects of exchange; most households give some of it away every day. It is also part of the conventional set of gifts that change hands on virtually every ceremonial occasion. The main purpose of such gifts is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. The ritual statements that may be made by means of taro gifts fall into two categories: raw taro, ritually given by men, tends to be part of a ceremony aimed at the establishment or restoration of social relations, whereas gifts of cooked taro, normally made by women, are part of the process of maintaining social relations of a certain degree of intimacy.

I shall base the following abbreviated analysis of taro symbolism on one myth. Of the several versions collected, I shall quote the fullest one, indicating variants where relevant. The name of the principal hero is usually given as Totoima, though this name does not appear in the version quoted. Williams has some references to the Totoima myth (see 1930:155, 158–159, 276), but these are not very illuminating. The following version was obtained from Samuel Jovareka, born at Kiorota and now a resident of Sivepe village:

> A husband slept with his wife. She became pregnant and gave birth to a small child. The husband came and asked:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

"Woman, where does the boy come from?" "I have just given birth to him." "Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat."

The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child, which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding place, where she covered them with a heap of weeds [*bivese*] by the root of a tree.

On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, the husband said: "Wife, what did you do with my child that was in your belly?" "Husband, I threw my child into the water because it was bad," she replied. "I am going to collect cabbage."

Having said this, she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said, "Wife, why did I see you cry when you climbed to collect cabbage?" "When I went to collect the cabbage, the sap squirted into my eyes and I rubbed them," she said. "You are lying," he said.

When the children were fully grown, she took them to the mountain far away. She told them their history; "therefore, I must leave you behind and you must stay," she said. When she joined her husband again, he asked: "Why did you stay away so long?" "As soon as I had done my work and planted my seed [*bere kovitie*], I started on my way home," she said. "Woman, you are telling lies," he replied. When the man understood what his wife had been saying, he went away.

The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling had gone to collect taro while the male sibling was lying asleep with his chest turned upwards in the shelter. It was there that the man found him, recognized him at once as his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from the neighboring mountain district of Managalase brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married his sister and how the young man killed his father when the latter returned to complete his meal. He cut the father into many pieces, which were shared out among men whose descendants became the various language groups of the northern district, and multiplied exceedingly.

The informant who told me the myth suggested that its subject was the origin of taro cultivation. The whole text is deliberately ambiguous. When we are told of the woman giving birth to a child, we must think simultaneously of her harvesting a taro—and we must remember that among the Orokaiva only women are considered *capable* of harvesting taro. When the woman is told to cut the child's head off, the narrator is thinking simultaneously of harvested taro, which is considered to be still alive until the top is severed from the rhizome. Again, the woman's method of concealing her children is modeled on the treatment given to taro shoots (*bere*) when they are planted. The word *bivese*, in particular, denoting the heap of weeds with which the children are covered, is a gardening term.

The apparent lies used by the woman to hide her activities from her husband are truths if her statements are taken symbolically. For instance, the reference to "throwing the child into the water" calls to mind that the origin of taro in many myths is linked to the water and that the rainy season is metaphorically linked to the fostering of a child in the womb.

The true nature of Totoima, though familiar to every Orokaiva, is not explicitly set out in the myth presented here. In other tales he has tusks which he wears when he kills people, but which he lays aside when he goes to sleep. He is killed by his son after his tusks have been removed from his bed. I shall return to this theme in a later section of this essay. Meanwhile, we note that in attacking his son, lying in the *gaga*, Totoima behaves in the manner of a wild pig while his son behaves like harvested taro. Totoima has partly a pig nature, partly a human nature, and these aspects are only partly differentiated. His son,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva · OJ23

824
539

by killing him, sets up a boundary between pig nature and human nature which thenceforth remains rigidly fixed. What concerns me is the link, in the present myth, between this theme and the origin of taro cultivation.

The myth appears to be built up out of three sets of oppositions. One is the dual nature of Totoima, already discussed. The second is the dual nature of his wife, or of woman, who nurtures Totoima and also conspires to kill him. This second aspect is also found in numerous myths concerning Totoima. In the present version not only the wife but also the daughter is involved in conspiracy. The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. This is an essential part of any myth concerning the domestication of plants. The *bere* of the taro, the cuttings, or more strictly, the corm-bearing bases of the petioles of the taro plants, must be preserved for the next harvest. It is the woman's duty to withhold these from her husband and to manage the taro field so that the supply of *bere* is always assured from year to year. It is for her to see that her husband behaves like a "domesticated" human being. This is notoriously difficult for the male even today. In that sense, Totoima may be said to be reborn with every generation. Woman's two aspects—nurture and domestication—are crucial in the ritual statements that are made through gifts of taro.

The third opposition, to which I have just referred, is between the taro garden—the patch of land that is cultivated and domesticated—and the bush where the wild pigs, the ghosts, and the enemies are. This is at the same time, essentially, the opposition between the male and female spheres of life. Man, the hunter and fighter, is primarily concerned with the world outside the garden. To woman, this is an excessively dangerous world, and the sphere of the village and garden must constantly be protected from its influence. The symbiosis between man and woman is based upon gifts of products obtained by each sex in one sphere of life and indispensable in the other. Thus the garden products are indispensable to the life of the male. Conversely, the meat killed by the male is indispensable to the

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

female. I have collected a number of myths concerning the origin of marriage, where that institution is created by the male hero's act of bringing meat home for sharing with his wife instead of eating it in the bush, as was customary before marriage existed. It is also the male on whom the female depends for clearing the ground and making a garden, and for clearing a village site and building houses.

If female nature, in its pure state, is found in the taro garden and male nature, in its pure state, is found in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. One may say of Totoima that in him this dual nature is imperfectly developed; that he behaves toward taro in the manner of a cannibal. Similarly it is at first imperfectly developed in his son, who does not hunt and has purely a taro nature. He is therefore easily defeated by Totoima. It is only when the man from Managalase has replaced the son's taro innards with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolized by his manner of killing, namely, with a club rather than the teeth (as Totoima did).

The second type of ritual statement is made by men giving raw taro, complete with tops, to other men, usually in the context of a feast. Although such gifts are confined to varieties classified as "feasting taro" (*pondo ba*), most tubers actually grown in the villages I studied fall in this category. This second type of ritual statement can be understood only once we have explained why in most Orokaiva taro myths there is not a single originating hero, but two, namely, a pair of siblings of opposite sex. In the myths which have a single hero, that hero is invariably a woman. In chants sung in homage to the taro divinity, this deity is always called Bako Jape (grandmother taro); taro, for the Orokaiva, is symbolically equal to "our mother," as they often say. The presence of the male sibling therefore certainly needs explanation.

To this puzzle I shall add another, which is posed by a detail of the text of the myth as quoted here. It will be noted that in the beginning of the myth the twins born to the taro

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

woman are both male whereas at the end they are described as siblings of different sex. Did the informant err in the opening sentences? It is possible but, in the case of Samuel Jovareka, not at all likely. This second puzzle seems a very trivial one, but we shall find that, if we know why the sex of the taro in the narrative changed, we shall also know why there are two taro ancestors in the myth, and why these are siblings of opposite sex.

The myth takes us through *two* complete taro cultivation cycles, not just one. We are told of the planting of taro in the water, covered over with weeds to protect them from the sun, the gradual growth of the plants under the woman's care, the shifting of *bere* (developed in the taro) to a *new* garden "established at some distance from the old one, as is customary," and finally the growing of these *bere* to maturity. I was given no explanation of this duplication, but would ascribe it to the punctiliousness with which the Orokaiva regard the domestication process, a characteristic which I shall discuss in more detail in connection with pigs. The myth starts with the finding of wild taro and the transplanting of that taro to a clearing. But it is only the *bere* that have been *grown* in that clearing that can be described as truly domesticated taro.

The effect of this domestication process on the disposal of taro was that in the beginning, when the woman simply found taro and then cooked it, *all* taro harvested by the woman was a gift to the man. Therefore, if we follow the same kind of reasoning as we learned from the coconut and areca myth, all taro harvested by the woman was of male gender. We may say equally well that Totoima ate all taro whether it was male (i.e., intended for him) or female (i.e., not intended for him under conditions of domestication). At the end of the myth, however, a differentiation has been effected between the male taro, which lies in the shelter ready for consumption, and the female taro, which has gone elsewhere, presumably to a new garden. The taro is female at all stages of its development but male at the point where it becomes available for giving away.

There are now two ways in which this product may be disposed of. It may be given away by a woman in cooked form or

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

it may be given away, complete with tops, by a man to other men. We here see the same contrast which we met before between a metaphoric and a metonymic gift. The feminine gift, in this case, is metaphoric: she gives her own essence, which is taro, to the man. In return she receives meat, the man's essence; but we come to this later. The male gift of taro, raw and complete, is metonymic: he gives some part of his taro nature, conferred upon him by woman, to another man with whom he desires to establish or restore social relations.

The significance of taro, as part of the nature of the human male, is clarified in the myth by the opposition between the male twin and the man from Managalase. The Managalase is a neighboring mountain district where the main crop is yam, not taro, but where a variety of taro (called *pijama*) is also grown. It is not, however, grown in gardens but in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son: unlike Totoima, he recognizes the technology of domestication of taro, but he recognizes it inadequately, being mainly a hunter. Such, at least, is the view expressed in Orokaiva stories about the Managalase.

Taro, to the Orokaiva, is symbolic of strength; it is preferred to other staples because it builds stronger men, so it is believed. Taro is, moreover, the principal bulk gift displayed at feasts. Certainly, pigs are always given away at feasts, but in small quantities, and the size of the feasts is not principally measured by the amount of pig meat given away. It is by the quantity of taro that changes hands that the size of an Orokaiva feast is measured. A pole is placed in the center of the heap and measured. When taro is received at a return feast, the recipients take it back to their own village and lay it against the same pole. If the quantity is smaller, the other side has lost the competition. The strength of a village is measured by the amount of taro it can produce. The strength of a fighter or hunter is derived not so much from the amount of game he has previously killed; it is derived from the taro he has eaten. It is in this sense that taro, when consumed by man, is stronger than pig, though in the absence of this metabolism, pigs are stronger than taro.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Finally, it is significant that in the fighting between Orokaiva and Managalase, the former were most often the aggressors and the latter were the victims of cannibal raids, of inroads on their hunting territory, and so forth. Thus the Orokaiva regard themselves as stronger than the Managalase (certainly they are more numerous, as their fertile land can support a denser population) and the Orokaiva explain their greater strength by the abundance of their taro supplies.

While it is clear enough that there are no hierarchical implications in female taro gifts (they symbolize the symbiosis between the sexes), a kind of hierarchical ordering is apparent with regard to male taro gifts, inasmuch as the myth is concerned with a conflict between adjacent generations, where the father seeks to kill and is killed by the son.

It seems to me, however, that hierarchical ordering of this kind does not fall within Mr. Dumont's definition (1966:92), namely, that hierarchy is "un principe de gradation des éléments d'un ensemble par référence à l'ensemble."[3] This seems to exclude hierarchical ordering within a family, or corporate group, on the mere basis of age and generation. It does not altogether exclude the kind of stratification suggested in the myth as between hunters and gatherers (lowest tier), hunters and bush-clearing cultivators (middle tier), and garden cultivators (highest tier). Within the framework of Orokaiva society this is not a hierarchical relation between population groups but an evolutionary sequence with little reference to actual social relations. When the Orokaiva postulate some superiority over Managalase, this is no more than tribal rhetoric on their part. Nonetheless, on the level of rhetoric, we find hierarchical ordering of tribes according to their cultivation practices.

Taro, moreover, gives rise to hierarchy on the level of network structures. Taro has a special position in the Orokaiva exchange system in that it symbolizes commensality. Though, in terms of the myth, it is only a gift made by a woman to her husband, in practice cooked taro is given also to those households which a woman wishes to honor with a kind of pseudo-commensality. The taro is taken to the home of the recipient,

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

241 461 Time is therefore a highly inappropriate measure of useful activity in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

554 461 A great man, or a manager, is not always a gardener. He may be a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not dark like that of Hesiod or of Adam's curse. An Orokaiva informant once recorded for me on tape his version of the relevant portion of Genesis:

[773] [177] [539] "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.

He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."

Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . .

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A rea-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa;*
773 *donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena.*
177 *Ainge ivu tu ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa*
539 *eto i gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure gulha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gulha avo earora. Eto donda matu nunuga ena avo indie iruetera avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto india. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora."* Robert, Sivepe, 1966.

694 20. The text: "*Embo handa piriti embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora."* Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da piriti embo na samani eo pambuto re koto ea, amiko donda aravo porukau aravo pure puvuna."* Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

434 and the remainder in either shares or savings accounts. Four of the eleven households had no monetary assets at this time, while 454 six had no cash in hand.[1]

Table 4:5

Sivepe: monetary assets of households, January 1965
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Clan savings account	Total
1	24.00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

454 Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies, [546] the OCGS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCGS declared a dividend of 5 per cent.

614 Two members of Timumu clan had contributed to a clan savings account which was supported mainly by clansmen in another village, 454 Soroputa. In 1964 it was decided to use the funds to establish a trade store in that village. Even if implemented it is doubtful 443 whether this store would be profitable, since Steamships Trading

[1] Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

[TEXT CONTINUED ON PAGE 91]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
[778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 177 The Orokaiva of today has to act in conformity with two conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 178 There is, for instance, a taboo on using the names of affines. When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 167 178 The temporary labour migration of young men (who sometimes leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables

178 583 such as shell necklaces and feathers, cooking pots, but in addition new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 178 There used to be a ceremony to which a boy was subjected at or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

602 The Orokaiva say that the *dambo* relation, although similar in many respects, is colder, more formal than the *simbo* relation. If a man dies in war, his *simbo* will die with him. The same intensity of feeling was not expressed about agnates. The feeling is the same where female *simbo* are concerned, except that "women cannot always do what men do." *Simbo* relations were especially important during the period of courting, war-like raids, and bravery in collecting war trophies.

602 572 The *simbo* relation resembles in many ways the kind of friendship described by Paine (this volume, pp. 117–37). There is a sense of worth having a *simbo* as a companion. The relationship is oriented towards what is regarded as the great things in life, principally love and war. It does not tolerate bargaining of any kind. It is not competitive exchange because *simbo* are not supposed to compete or exchange; it is not strictly cooperative either, as it does not bear the burdens of everyday obligations characteristic of the domestic unit. The taboos effectively separate *simbo* from each other [773] on this everyday plane. In the mythical texts, we find an aspect of *simbo* relations not stressed in ideology: in them, the *simbo* are forever playing nasty tricks on each other, depriving each other of benefits that are requested, and stealing each other's girls. But in such tales, virtue tends to win in the end. They form a charter, in Malinowski's sense, for the rules about *simbo* behaviour.

In the *philia* universe, *simbo* occupy a special position; namely a rejection or negation of both the cooperative and the competitive modes. The cooperative mode, taken by itself, leads to entropy; the competitive mode, taken by itself, leads to perpetual conflict. The *simbo* relation is a synthesis of the two, as is reasonable enough if one remembers it is symbolically equivalent to marriage, as analysed by Aristotle.

572 608 Fictive *simbo* bonds are sometimes created between non-kin who are engaged in an appropriate common enterprise and who desire to express their mutual warmth of feeling. Such a relationship gives friends a kind of explicit claim on each other's property and services. Because of the name [551] taboo which applies loosely in these non-kin bonds, *simbo* tend to address each other by special names known as *simbo* names.

For instance, one morning I was working on a task with a Papuan friend, when a visitor entered with a gift of eating bananas. My friend broke off a twin banana and shared it with me. "Now we are *be pije*" (banana men), he said, explaining that this was one of the *simbo* names most frequently used. If the two friends happen to find a twin areca nut, they become *be sa* (areca men); similarly one finds *be hinga* (pepper men) *be junga* (fig men) and so on. The relationship is extended to the wives of the fictive *simbo*, who become known as *ka pije*, *ka sa*, and so on. Thus, my wife became my friend's "banana girl." While such a relationship was not explicitly described as hereditary, it is easy to see how it can be transmitted from generation to generation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
[778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

614 824 The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting [773] access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants ● [553] of plants, but that the ancestor was a man bearing the name of that plant. Clan and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

614 824 To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging [582] and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and [611] mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*. In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [715] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 574 [345] [554] demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a person occupying the office of feast leader who is charged with the ritual as well as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

177 657 [789] Christ and perhaps other supreme sources of which they have no knowledge, but these ultimate sources mostly seem inaccessible to the Orokaiva; the people know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidentally, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 657 797 It may thus be said without hyperbole that community development among the Orokaiva has a mythological charter – namely, the Christian religion as the Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 657 623 But the second mediating element in this relationship is the councillors, through whom the government's information must pass to reach the people. They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is [191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some [554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[5] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8

Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] [769] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 [627] Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and daughters should inherit land in preference to second degree kin. I know of
425 several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

423 621 431 [554]

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

423 425 571

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

423 437 571 [182]

Why is land appropriate as a mediating object in such exchanges of social

423 431 571

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *aaru*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

The first plans for a feast are laid at least one year in advance, as it involves extra plantings of taro as well as economising on pigs. By the end of December, the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

The pig sacrifice at this meeting serves to remove any latent hostility between the men of the group, so that all will be united and co-operate unreservedly towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The meeting thus temporarily changes the authority structure of the village. The growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

The same principle underlies one detail of the ritual taro display to which I have not yet made reference. At the meeting 'special betelnuts' (I do not know just what medicine is used on them) are distributed by the feast-giver to be shared, after the meeting, between the men and their wives. The men are to ask their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind.

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function.

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From

624 Residential units created for administrative purposes seldom had a single focus of allegiance. In the case of Sivepo, the officials appointed by the government in separate villages were thrown together in one village and were later replaced by the local government councillor.

In the mixed post-eruption settlements too, Keesing (1951:9-11) noted conflicting authority between men of different descent groups. Leadership had to be bureaucratically imposed and 'there were no signs of a self-motivated [political] superstructure taking form other than the strengthening of scattered clan ties'.

613 Varying definitions have been given of corporate descent
554 groups whose representatives might be said to have legitimate control of land among the mountain Orokaiva: Horton (1962:2-7) describes the embo dombo as a man 'who by virtue of being the senior member of a lineage and by having a superior knowledge of land matters, is regarded as the chief authority in the lineage', and says that the composition of the land controlling group varies from 1 or a number of lineages within the clan to the entire clan. [614] There are said to be as many embo dombo in a landholding group as there are lineages yet he later maintains that

> in each 'clan' a male member, by virtue of his age, his seniority in a descent group and knowledge of the land, has a recognized authority over any matters affecting the activities of the clan of which he is a member and particularly on land affairs. There may be one such man in a 'clan' or a number and he is known as the Embo Dombo.

Horton suggests that every male member of the controlling group is an enda mamo (master of the land), and that the term has sometimes been incorrectly identified with a 'chief land holder'.

Belshaw (1951:2-3) states that the 'minor lineage', constituting all or part of a 'hamlet', shares land and works it together. But particular members 'through their slightly different relationship connections sometimes have senior claims to different areas of land' and a member is enda mamo only insofar as the group is currently cultivating the land to which he has senior claim.

624 Plant (1951: Appendix 2) diverges more from Horton's definition
614 of enda mamo saying that there is one man with this title who is guardian and administrator of land, which is vested in the clan. Although these powers in land matters are more continuous and wider in scope than Belshaw maintains, Plant explicitly distinguishes them from the status of embo (peni) dombo (clan headman). He narrows them further to residual rights to make decisions, in council with clan members, on important matters concerning any of the areas which sections (or segments) of the clan in different

624 villages and individual members of these groups have come to
614 regard as their own, since 'usage tacitly becomes ownership'.[1]

Norton's use of enda mamo seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepe exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mamo or Norton attributes to the embo dombo.

[425] Among our recorded cases of land falling without direct lineal
[426] heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organisation is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebahupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 30 years.

[613] He retains prestige and influence in many matters of concern to
[624] his own lineage. He can claim prominence among more close agnates
[554] than a leading man of any other lineage in our sample, even though
[614] the Bebahupa have now dispersed from Binduta to Garombi, Mahihita, Kakita, Awala and Sivepe. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Norton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

511 (iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be
[512] changed at any time. The composition of individual households
[514] within the village likewise varies, although the basis is generally the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-
871 skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[1] For the purposes of this survey, a household is a group of people [519] gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.2 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

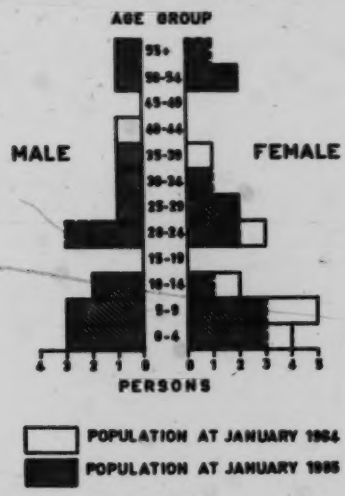
A. [See Category 871, p. 307--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

FIGURE 4:2

INONDA: AGE-SEX STRUCTURE

SHOWING NET CHANGES JANUARY 1964-JANUARY 1965



non-agnatic ties have led to close relationships with people in Ajoro, Sewa, Hosou, Urio, Jonita and Hohorita.

As in Sivepa, most of the men have had labouring jobs and two had also been teachers for the Anglican mission - one for 27 years, the other for 6 years, including 4 in New Britain.

Three household heads, all over 40 years of age, have had no education. One household head and one woman reached standard V and the woman's husband completed standard IV. Two young men, one a household head, served as farmer trainees at Popondetta Agricultural Station, and another completed eleven months of the course at the aid post orderly training school at Saiho.

In addition to his six years with the Anglican mission, one of the ex-teachers, a man of 35, was for two years local government

554 councillor for the villages of Inonda, Ajoro, Hohota, Hosou and Sewa. He is the senior resident member of the traditionally-dominant lineage and the trade store owner. He initiated the building of the copra-drier and takes the lead in most other new undertakings and at times of crisis or dispute, though his views are sometimes successfully opposed. In land matters he defers to or seeks the advice of the oldest male resident.

Economic holdings

241 [126] The data on crop patterns and areas of subsistence gardens are presented with the data for 1962 given by Crocombe and Hogbin (1963:7-10). The figures for garden areas are not strictly comparable, since the 1964 data on garden areas, though not on crop numbers, were obtained by mapping from aerial photographs whereas the 1962 figures were calculated from the results of chain and compass surveys. This latter technique was used in 1964 for mapping the areas under taro and sweet potato. Other crop data were obtained by counts in the gardens. Information on holdings of economic trees and the inventories of household property were derived from interviews and were not checked on the ground, except for trees recently planted in the village surrounds.

[592] Although the mean size of household is 3.9 people, two households contain only one adult. There is considerable flexibility in residence and in arrangements for making gardens. For instance, the mother of the wife of one household head came to settle in the household permanently in July 1964; she maintains her own garden, which was cleared by her son and her daughter's husband. Another household comprises a widower who makes his own gardens and has the highest cultivated area of any household; however, his eldest son's wife, in a separate household, does some of his harvesting and prepares most of his meals. The widower also makes gardens for the widow who heads household 18. This woman lived with her two youngest children until August, when her eldest son and his family (household 21) moved into her house on the new village site. Another garden was made on her behalf by her brother in another village. Household 24 comprised the parents of two sisters who had married Inonda men. At first, they lived with household 23 at the old site but moved in October to join household 21. They maintain their own gardens.

(a) Food gardens

At the beginning of February 1964, the nine Inonda households were cultivating 27 gardens, at a mean distance from the village of 0.5 hours' walking time. In December 1964 the eight households remained after the departure of the Jego'undi man had 29 gardens at a mean distance of 0.3 hours' walking time.

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

The activity patterns of selected individuals

128 The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 36 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village.

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1 See p.292. A 4

A, [See Category 433, p.292--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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554 his position being acknowledged by the widest range of people. Although in no sense a 'director' of village affairs he was the last villager to receive an otohu[1] and the first to obtain any formal education.[2] His position is therefore derived from his apparent ability to encompass both the 'old' and the 'new' ways, thereby gaining the respect of most members of the community. This elevation in his status is a recent development, not evident during Rimoldi's stay in the village, and in all probability influenced by the fact that he is an adopted member of Timumu clan and only 38 years old.

554 A married man with five children, he lives next door to his ageing step-father and
[431] mother giving them, as well as other older villagers, considerable gifts of food and assist-
[476] ance with such customary group enterprises as clearing garden sites, harvesting yams and house construction. Further, with an age mate from Saho clan, he accepted full responsibility for the organisation of the major sago-making venture during the dry season, at the request of his mother's brother. Among younger members of the village his stature is derived from extensive experience in paid employment[3] and his active interest in and responsible approach to cash-producing activities within the village.

Linton has the largest cultivated area of those surveyed and the largest holding of yams. Also, being the owner of a shotgun, an active coffee grower,[4] an OCGS shareholder and, during the survey, erecting a house of local materials under contract for Saho hospital, his commitment to the external economy is both varied and substantial.

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1 The otohu was an ornament presented to selected initiates which conferred on them important social obligations. In a discussion of the nature and purpose of the otohu Williams (1930:204-5) states: 'Adjectivally, the word seems to indicate "well-behaved" in the widest sense of the term. It was applied to a law-abiding and amenable member of society, and perhaps the nearest equivalent in our language would be "decent" or "respectable". The emphasis is certainly laid on the milder virtues rather than the more heroic. Thus a man was otohu or otohu-embo who did not quarrel, who did not beat his wife or children, who did not ill-treat his dogs and pigs, and who did not steal.... Diligence bears some part of this rather complex ideal, and so certainly does generosity....
We may conclude, therefore, that the possession of an otohu does involve a social obligation. It is an honour and a privilege bestowed by society, but it means that the recipient should settle down as a thoroughly amenable member of that society.' In Linton's case the otohu was presented at a specially arranged ceremony, apparently in acknowledgement of his upholding of traditional Orokaiva values.

2 He spent a year at Isivita school prior to the second world war.

3 A total of 9½ years spent, largely in an unskilled capacity, in Port Moresby, Lae, Salamaua and elsewhere in the Northern District.

4 Although without a coffee garden of his own, he has successfully asserted a claim to trees acquired by another Timumu man following the subdivision of a communal planting established about 1966. See Rimoldi 1966:53-4 for a description of this planting.

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Saiho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timunu clan cut it up and sold it, giving all the proceeds to Linton's mother.

[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

472 224 Linton faced a similar conflict between custom and cash in his hunting activities. As the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would hunt on their behalf if they provided the cartridges and a cash payment of 10c with each

[571] cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 82.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-35. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Sasembata clinic.

those visitors who had given most cash. In former times, they said, feasts usually continued for two to five days, but today there is a tendency, particularly in areas where paid work is available, to get them over in a single night or week-end.

While the rationale for the party was the birthday of the two children, they were in fact conspicuous by their absence from any aspect of the celebrations, feasting or exchange. The changing modes of dancing, dress, entertainment and economic exchange showed a constant striving to acquire foreign behaviour patterns. The feast did serve to confirm the adoption of the children (which had not previously been formalized) and to affirm the bona fides of the son-in-law who had been unable to meet his bride-wealth obligations. But it appeared to me that the main motive of the promoter (a retired mission teacher whose prestige was considerable, but waning in his retirement, and whose status was marginal in a patrivirilocal society in which circumstances forced him to live in the village of two of his daughters' husbands) was to reaffirm his prestige and reinforce his stake in the village of his residence.

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CHAPTER 4 - WORK ORGANIZATION

Characteristics of the work force

At the time of our survey there were 23 persons of 15 years of age and over living in the village. One old man was very frail, and one woman who was visiting her brother while she recuperated from an injury, did no productive work. There were no girls between the ages of ten and fourteen, and only three boys. Two of the boys were temporary visitors and did not stay for long and the third, a lad of about ten years, was never seen to engage in any productive work. Children of nine years and under frequently helped with domestic chores like carrying water and firewood, but they took little or no part in agricultural production. This left a work force of 11 men and 10 women, though one man died during the survey, thus leaving equal numbers of each sex.

As shown in Table 9 below, all Inonda household heads except one had been employed,(1) and they had spent at least part of that time away from their home village. With the exception of those employed as teachers, village councillors or village constables, almost all the men had gone away to work before they married (and marriage was consequently delayed for these men). There was no pressing economic reason for young single men to remain in the village, for subsistence gardening is primarily women's work and such men's work as there is to do can usually be done by the head of the household. In fact the people have come to regard a trip away to work as a necessary prerequisite to adult life. It gives an opportunity to earn money (much of which is saved in order to acquire a bride on return to the village) as well as prestige, and the one man who had never had paid work was mocked on that account. Only one Inonda man was employed away from the village at the time of the survey. He was a single man who was working in Port Moresby (and was not included in the survey).

(1) There were three men who were not heads of households. Two were old men who had not had any paid work as it had not been available in the time of their youth. The other was a young man who had spent 4 years as a medical orderly. These women had been employed - two had spent a year each as teachers and one had spent a year in domestic service.

Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
38	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager,(1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

(1) He has planted 1,161 cocoa trees.

to the Northern District none has lived within a village community in the way almost all Orokaiva live today. Their houses are built on their farms adjacent to their cash crops rather than in a village. The farms of A and B are within half a mile of their villages but C's farm is two miles away, while D, occupying a resettlement block, is nearly a hundred miles from his home village. (There were no resettlement schemes closer at the time.) The first three men were joined in their new houses by relatives, in addition to their own nuclear families, who lived with, or adjacent to, them and assisted in the cash-cropping.

The four entrepreneurs had engaged in paid work for periods ranging from twelve to twenty-five years, with an average of seventeen. This is considerably longer than the average for village Orokaiva,[1] and the entrepreneurs have each been engaged in a much wider range of occupations than ordinary villagers.

The work experience of one of the successful entrepreneurs, B, had been mainly in cash-cropping activities, but the other three had had little such experience and none of them had any experience or training in retail trading. On the other hand, all four had held posts involving considerable responsibility over people and property.[2]

A factor which can only be a matter of conjecture at this stage, is that all four men appear to have drawn on the example of specific persons as models for their actions. Their aspirations to higher consumption standards, better housing, motor vehicles, education for their children, etc., appear to be very similar to those of the village Orokaiva people with whom I have worked. The main difference seems to be that most village people regard these goals as largely unattainable by methods at present open to them and are still seeking a clearer 'way' or 'road' to prosperity, whereas the four entrepreneurs have seen their goals as attainable by drawing on the models known to them from personal experience.[3] This is not to suggest that they have clear-cut or well formulated plans for development, nor that they are familiar with the economics of

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[1] Household heads at Inonda had spent an average of ten years in paid employment (Crocombe and Hogbin 1963b:59) and at Sivepa six and a half years (Rimoldi 1966:82).

[2] Their positions have included cook, labour recruiter, charge over food and equipment stores, foreman of plantations, of a coffee factory and of an oil exploration team, and police sergeant.

[3] In all four cases the models were European, but in the case of Numbuk of Erap (Crocombe and Hogbin 1963a:1) the model was a successful New Guinean entrepreneur.

472 marketing or the more intricate techniques of production. It does
554 suggest, however, that they have a sufficiently clear conception
153 of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 Most Orokaiva men established their cash crops on customary
423 land to which they have acquired rights by inheritance from their
[428] fathers. None of the entrepreneurs did so, though all claim that
[472] they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 A had cleared bush land and planted coffee at Garara where his
423 close kin had been permitted to resettle in the late 1920s. Though
472 the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for re-
[656] gistration of his land under the Land (Tenure Conversion) Ordinance 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe
[656] and Hogbin 1963b:72-3). He subsequently improved the security of his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

[432] C has rights to hundreds of acres of customary lands. For his cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

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[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

156 402 554 [614] [714] [631]

Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods. [514]

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1 Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

2 Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

It is thus understandable that though the entrepreneurs are often not acceptable in leadership roles in their own villages, they are acceptable in elective roles where the selection lies with a wider community. It is likely that the stimulus they give to economic change among the Orokaiva is considerable. When they achieve their goal of owning motor transport, which gives tremendous prestige, many will consider that their 'way' has been substantiated and the impact of their example will be multiplied.

Summary

Data are presented on the four rural entrepreneurs among the Orokaiva. Because the sample is so small few generalisations can be made. All had travelled much more widely than the average villager, had been in paid employment for longer and had held posts of greater skill and responsibility than the average villager. Whereas most Orokaiva people established their gardens on their traditional lands, the entrepreneurs have deliberately not done so. The three who had developed their enterprises without financial help were all eldest sons who benefited from the labour of junior relatives. All have attempted to employ permanent labour, but none has succeeded.

There were marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spent less time than villagers did on subsistence gardening, but twenty times more in cash-cropping and trading; they spent much less time on traditional social obligations and much more on community leadership.

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Table 3

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472
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Years of paid work

A	15	E	10	I	1
B	8	F	5	J	8
C	8	G	7	K	3
D	14	H	13	L	4
Average	11.25		8.75		4

[554] When level of responsibility and status is considered, however, the position reverses: those who are most successful have held jobs requiring most responsibility.[1]

Table 4

Level of job responsibility

	A	2	E	2	I 1
	B	2	F	2	J 3
	C	3	G	3	K 1
	D	2	H	1	L 1
Average	75% at level 2		50% at level 2		75% at level 1

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Social relations

Age. Average age is lowest for the most successful group but this is likely to be related to the fact that educational services were even fewer before and during the second world war than they have been since.

Table 5

Age

A	34	E	50	I	40
B	30	F	46	J	26
C	37	G	26	K	29
D	40	H	45	L	21
Average	35.25		41.75		29

[1] Level of responsibility was categorised as follows: (1) policeman, cook (pre-war), welfare assistant, medical orderly; (2) interpreter, labour recruiter, foreman; (3) storeman, clerical assistant, domestic (post-war), gardener, hunter, labourer.

Table 18

Loans received

A	$1,500	(land board)	E	-		I	$200	(from brother-in-law for store)
B	$178	(from younger brother for store)	F	-		J	-	
C	-		G	-		K	$390	(from brother and share money for store)
D	$1,500	(land board)	H	$1,500	(land board)	L	-	
	75%			25%			50%	

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

657 423 been at Ombi-Tara, in favour of briefer parties which distract less from market oriented activities.[1]

182 [829] There was verbal evidence at Ombi-Tara of further rejection of old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] [554] [614] Leadership in the traditional societies of Papua-New Guinea is generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It was decided by the members of the Musu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. [556] This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] [627] The functions of the clan leader are little changed by the new tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

464
166 Absence from the village, particularly by working-age males, is now an established social pattern among the Yega. Fifty-one per cent of all adult males are absent, in paid employment. For unmarried men, the percentage is seventy-seven. Of 100 adult men working away from the village, twenty-three had been away for ten years or more; in four instances separation from the village was virtually complete, three having never revisited their village and one only once in thirteen years. This means that many Yega can no longer be classified as 'temporary' absentees. However, most wage-earners still return to their village for annual holidays.

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431 All wage-earners send a portion of their earnings to their older kinsmen who remain at

178 [P.17-A)
554

434 home in the villages. By doing this, they are
431 bringing about changes in the established
178 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was associated with the ceremonial distribution of goods: the recipients were placed under obligation to repay in similar kind at some future date, or else lose status. Among the Yega, the older recipients of gifts in cash or manufactured goods find it impossible to repay such gifts. As a result there has been an increase in the prestige of young or middle-aged, educated men. An instance of this trend was the
[666] almost unanimous election, in 1964, of such
[659] a person, recently returned from paid employment, as the Yega's first councillor on the Oro Bay Local Government Council.

[P.17-B]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

621 main road, or even facing each other on opposite sides of it. Although this is clearly
361 the wish of the majority of the people, it does not suit all of them. There is some
731 talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

423 The inheritance of land is mainly patrilineal; but a man may work his wife's
613 land, and even, with the assent of her relatives, inherit a share in his mother's land.
[428] This means that individual members of a clan, instead of inheriting land jointly from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of the clan. At any rate, he is given a special title, *enda mamo*, or "father of the
[554] land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
361 once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Teupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepa village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is
177 more often Popondetta. Another difference is that whereas Sivepa,
795

731 a warning not to openly disobey the new culture heroes, to deal with
177 them gently and cunningly and avoid making them angry. Thus the
eruption led to greater circumspection if not contrition. It also led
[784] to a sense of deeper involvement with the new age. The immediate
consequence was a fashion of modern village building in 1951, as both
Belshaw and Kaad have reported. After this rather brief demonstration
of respect to the deity, life reverted to its previous style for some
years, after which there was a further period of innovation, more
soundly based on the development of the Sasembata school, the local
government council, the increase of economic opportunities, both in
the towns and in cash cropping, and finally on nation-wide political
development. The Orokaiva of today definitely sees himself as entering
upon a new age, and he views this with optimism and some excitement.
The eruption undoubtedly was perceived as a potent sign of the coming
of this new age and the danger of resisting it. For this reason, it
might theoretically be expected that new ideas would be accepted more
eagerly in the resettlement areas than in the less affected areas such
as Inonda.

177 Unfortunately, I find it hard to evaluate the Inonda data. The
554 Christian, cash-cropping families were as concerned to view themselves
as living in a new age as were the people of Sivepa. The views of
the other families were hard to obtain. Crocombe and Hogbin pointed
out correctly that these families explain their non-participation in
the coffee scheme by difficulties in their land title. The two authors
also characterised the Pagan families as being of "lower status",
pointing out that the "higher status" families are (also in neighbouring
villages) the most likely to plant cash crops or likely to plant most,
(1963: 85) for reasons of prestige. During my own stay, the Pagan
families set themselves against participation in the women's club, as
they felt it violated traditional custom. I had the impression that
there was a status conflict between the factions, as participation in
the church, the women's club or any other European activity would have
put the resistant faction in a clear position of inferiority, and
increased the power of the leader of the other faction who ran all these
activities.

Section II: Acculturation

177 The contacts and the ideological changes sketched in the previous
sections have not led to a basic transformation of the culture.
Williams' classical account of the Orokaiva, based on fieldwork
conducted in 1923, still corresponds in fundamentals to what can be
seen today. In the present section, I shall draw attention to some
aspects of the culture that have changed since the eruption, but it
should be stressed that, in field observation, they are seen as embedded
in a largely traditional culture, with a social organisation, economy,

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garoubi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, [554] dancing expert and some others. One of these experts, the feasting [622] expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility [614] for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari ubo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Saembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Soho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

479 plus other amounts of unknown size--enough for the projected establish-
443 ment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuma clan, to which Rimoldi refers, were lost along with the Jegase savings.

454 In 1966, two group savings accounts were in operation. People
621 had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

471 The only cooperative effort known to me at Inonda was a regular
439 arrangement by which vegetables grown at Inonda were carted to the Bubi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

571 Finally, a notable aspect of social organization in the post-
(554) eruption period is the emergence of leaders whose authority rests on
(177) two sources: status in traditional terms and status conferred by Australian-sponsored organizations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organizations as a source of authority (if Weber's definition of this term be accepted) 654 but only to recognize them as an effective source of compulsion. The
571 people of Sivepe, as well as Hohorita were very much aware that the
623 position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

755 medicine, though by no means always. Bandages were especially popular;
752 they were worn as status symbols and as dancing ornaments. Nurses and
physicians are regarded with affection; any person who obviously wants
554 to be helpful would be treated thus, and it has of course been noticed
that they relieve a great deal of discomfort even though Western
753 theories of the causation of disease are treated sceptically and mostly
explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

731 Data on the eruption period do not suggest that the attitude
743 to medicine was different then to what it is today. There were,
however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a
public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health
objective: it was right because the yellow and red varieties of sweet
potato are particularly rich in vitamins of which Orokaiva diet is
supposed to be often deficient. Today, only of this sweet potato is
grown in Sivepa, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepa was the health
inspector employed by the Higaturu Council. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Carumbi and he had many relatives
in Sivepa, he made frequent visits. Sivepa caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a lavatory and the place was kept clean in the prescribed way. On

794 and sang hymns and gossiped. Once a week, or at least as many weeks
515 as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

● [554] The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

794 The mission women now withdrew from the club and asked for their
575 membership fees back, which they were given. It appeared that their
578 quarrel was not so much with Sivepe but with the Sasembata village
628 women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

I asked him what he thought were the qualifications of a leader.
171 A leader, he said, must be very smart and understanding, have a lot
623 of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[157] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togahou village, there were far fewer ceremonial features than I saw at a feast at Inconda.

As an informant I found him entertaining but of limited useful-
115 ness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

The other key personalities at the time of my visit were all
123 Jegasa. As I had been apportioned to my clan, they were much more
159 helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence disliked, Robert, my neighbour. He was a man of about 32 who had most
[559] of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

123 to help others; he spoke softly and gently but when necessary could be
554 firm and tough; furthermore, he had a relatively wide experience of
159 the outside world. He had been a hunting leader before this task was transferred to the representative of the church council; he was also a leader in football. He came of a lineage with small land holdings in the Sivepe area, but his father had bought rights to additional holdings (with money Robert had earned) and his mother's brother had given him the use of other blocks Robert will eventually inherit.

159 When we came to the district he had just started his new house and was living, like many others in a small older one he had brought from Old Sivepe. He sold us his new house and stayed in the smaller one until we had gone. Though his house was thus among the most primitive in the village, it attracted more village visitors than any other; Robert and his rather attractive wife were popular. When the women's club house was to be built, and when Lawrence had given the land, it was Robert to whom the women turned as a work leader. It was also Robert who decided that the work on the village houses and the mission hospital had more urgency (and that the clubhouse had better wait until it had ceased being a pawn in female factionism). Robert went to Port Moresby for a few months after a violent episode in his tumultuous marriage, hoping he would earn enough money to open a trade store.

He had about four years of working experience outside the village, as a houseboy, with the A.P.C. and on road work. Since then it was his ambition to start in business; in the early sixties, Jegase seems to have made some attempt at a trade store with disastrous results. He hoped to do better the next time, but a trade store opened up in an offshoot of Sasembata village just next to Sivepe, so that this is destined to remain a dream. Robert composed several songs over the year, and was constantly practising his drum. People usually waited for him before a dance practise could start, though he was not formally the dance leader. He also managed all the diplomatic manoeuvers necessitated by our presence. He did this with great honesty; I [123] could always rely on all he said. Indeed, if it had not been for him [115] and his father, I wonder whether I could have come to grips with Sivepe at all. He also piloted us through the maze of the Orokaiva exchange system. He was the only person who never imposed on us, never asked for gifts. There was perhaps some calculation in this, as we were more disposed to respond to generosity than to the sharp trading engaged in by some others.

He had stood as a candidate for the council two years earlier but had been defeated, partly due to opposition from his affines. His first formal leadership role (apart from hunting and football) was as representative for Sivepe on the land adjudication committee. His father-in-law would have been better qualified, as he knew the land boundaries better, but he could not hold both committee posts simultaneously. It was interesting to see that in this situation, where the

622 growing in the village and these were consumed in a big feast 18 months or so after his death. There was much discussion, during these 18 months, as to who should follow Amos as leader; when I left, no decision had been made. He had himself designated the son of his elder brother who died during the eruption, but this man is a government driver, living in Popondetta. The people would prefer a local man for leader, but there is no suitable resident member of Amos' own hae. and in practice it seems that the question of leadership was debated not so much by the people at large but by the men of Amos' hae and Amos' wife's hae--the latter also coming from a prominent Horeopa family. Some leadership roles were meanwhile being carried on by an adoptive half-brother of Amos' wife. This man, a mission teacher who was head of the Hohorita school, and one of my best informants (Harold Meru), was in charge of the preparations for the coconut feast commemorating Amos' death, but he deferred to Amos' brother's son (Michael) on the day of the feast itself, when Michael came over from Popondetta.

622 While these problems over ceremonial leadership were being pondered, it was obvious that for most ordinary day-to-day decisions, 623 the most powerful man in the village was the councillor (Brian Aruha). Brian, though without any formal schooling, was employed by the government as an interpreter in the fifties. His employers formed a high opinion of him and it was probably not without their encouragement that he stood as a candidate for the Higaturu Council and was subsequently chosen by councillors as their chairman. In the view of senior government officials in Popondetta, Brian's knowledge of the history, activities and purposes of the council was unequalled in the district. He did not earn this reputation by craven conformity; indeed, I observed him at council meetings as a doughty opponent of the views of the government's advisory officer, even though he sometimes found himself arguing a strong case in a minority of one, for the other councillors tended to be rather deferential to the advisory officer.

622 Brian's power in Hohorita was much less absolute than Stephen's at Inonda because Hohorita has a far greater number of leading figures. 554 On the other hand, in the judging of disputes and in arranging the land conversion scheme described in earlier chapters, he wielded more power than any single person in Sivepa. In contrast with the Inonda and Sivepa leaders, Brian did not belong to the leading clan (Horeopa) nor to either of the other three well-represented clan groups. His real home was Soubou; at Amos' coconut feast he appeared as the leader of the dominant Soubou clan and in that capacity received gifts in recognition of services which this village had rendered after Amos' death--the traditional services expected from a neighbouring, closely-related village. Thus the power he wielded at Hohorita had the effect of spreading power beyond the dominant Horeopa clan, thus helping in the integration of the different clan groups.

622 Brian was assisted by a "committee" man who also came from one 624 of the smaller clan groups and who had at one time been a medical

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

241 taro ancestress is usually described as discovering the taro in a lake
773 or other 'round water'. The demigod Totima comes closest to
824 providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though
577 there are other myths of the origin of feasting). It is here that
773 questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other,
241 as enemies are thought to ensorcell the gardens. Another important
596 factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards
[769] *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

554 The model of the virtuous man was he who shared out his produce
577 and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

241 Identification occurred not only with crops, gods and ancestors,
774 but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

437 The pattern described here is characteristic of what Sahlins
436 (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

241 461 Time is therefore a highly inappropriate measure of useful activity in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

554 461 A great man, or a manager, is not always a gardener. He may be a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not dark like that of Hesiod or of Adam's curse. An Orokaiva informant once recorded for me on tape his version of the relevant portion of Genesis:

[773] [177] [539]

> "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.
>
> He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."
>
> Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . ."

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[23] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*iwo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[27]

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 597 305 17. A discussion of work specialization among Orokaiva (of which there is but little) will be found in Schwimmer (1967). An interesting type of specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa; donda deire tapa amo aisi os eto tunga osaga umbasoa.' Ainge ena. Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa eto i gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa andata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earoru. Eto donda matu nunuga ena avo indie inetera avo. Aravorute, ungo kiaekiae eto God na taekena avo umbuto India. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue trora.*" Robert, Sivepe, 1966.

694 754 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puruna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations [622] of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Avala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[515] [1] Cf. kiti ligari (p.30).

[2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

434 was in recognition of kinship obligations including bride price
[513] and gifts while 49 per cent of income was derived from these
[431] sources.
[525]

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging
[13] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] Shell and bone ornaments (hambo) and head-dresses (di) - made
[23] from feathers of the bird-of-paradise, mountain parrots, hornbills
[321] and cassowaries - known collectively as di hambo, are held by the
[555] people of Sivepe as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 454, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have
[555] taken over some of the functions of traditional valuables and in
some situations one is exchanged for the other. In the past it
[301] was recognized that skill and initiative in hunting and trading
[237] were necessary to acquire di hambo but today, with safer communi-
[321] cations and better hunting equipment, they are more easily obtained.
People are willing to buy some of the more valuable items or some
[439] cheaper items of European manufacture which can be adapted to
serve as a novel decoration.

Although they constituted the greater part of the goods changing
[428] hands on traditional ceremonial occasions, di hambo are evidently
not now circulating rapidly. A little less than half of these
valuables held by members of the sample had been inherited and
nearly a quarter had been acquired by the owner by hunting or
collecting.

A complete adjustment between the roles of money and of non-
monetary valuables has not yet been made. They circulate in the
same exchanges and both are considered essential; it may now be
[583] accepted practice that each should be contributed by or distributed
amongst different categories of kin on these occasions.[1] But the
opinion was widely expressed that as people are increasingly
demanding cash as a large part of bride price payments, the
intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely inter-
changeable, we collected details of the prices paid for any items
of di hambo which had been purchased by the sample,[2] and by using
these in conjunction with the unitary scale of value on which
informants could readily place all items, we assessed the possible
cash equivalent of non-monetary valuables acquired by the 12 house-
holds from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.40	9.30	17.70	16.60	92.00
Di	17.60	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

434 For example, during period II the sample's income ranged from $1 in one week to almost $50 in another. Since the turnover of cash is rapid and little capital formation takes place, the pattern of expenditure closely parallels income, and exceeds it in the latter part of period III when the substantial demand for storebought foods for ceremonial activities is met primarily with savings accumulated earlier in the year. These major fluctuations in the acquisition of cash demonstrate the danger of villagers placing any great dependence on it at this stage of commercialisation of the economy.

The exchange patterns of households

437 512 Both the volume and variety of transactions vary considerably from one household to another, and can be related to specific differences in the resource base of each (see Table 10:9). Thus, there is a distinct movement of labour services within the cash sector from non-cash cropping to cash cropping households, of cash crops from the latter, of the produce of hunting from householders with direct access to shotguns (households 3 and 15), of cash to cash cropping households, and of storebought goods to those households with the highest incomes.

Cash croppers exhibit a much higher volume of transactions than non-cash croppers in all categories apart from subsistence labour services. As suggested by the figures for subsistence produce, this applies equally to transactions in the gift and in the monetary exchange system. As in activity patterns so with exchange: cash croppers evidence a high level of participation in the traditional village economy. That is, cash croppers are industrious in work and generous in distribution, two qualities which generate respect and status both traditionally and in contemporary Orokaiva society. [555]

The lower rate of disposal of subsistence labour services by cash croppers may be indicative of the greater premium they place on time and a preference for exchanging goods more abundantly available to them but, apart from in the processing of cash crops, there is little evidence that they exploit the system by drawing on unutilised labour from other households. However, it is worth noting that household 15, whose head is the most active male in the sample, does record a high incidence of such exchanges of labour, in particular of acquisitions.

Not only do particular households play an important part in regulating the flow of specific categories of goods, especially the scarce ones of cash, pigs and game, but there are broad variations between households in their general involvement in the exchange system. The bulk of domestic pig is handled by four households (1, 2, 13 and 14), with only very small amounts being distributed or redistributed to others. Some of the households headed by older people (6, 10 and 11) or which are only recently

435 436 household head. Only one man looked after his own hambo and di, and he was an elderly man who spent much of his time at home. The last household had no valuables. It consisted of a young couple and the man had given what few articles he possessed for his wife's bride-price. He has a job at present and is meeting his traditional commitments with cash.

426 425 The processes by which the valuables were acquired are shown in the following table (in equivalent cash values):

Table 6

Acquisition of hambo and di

	Inheritance	Cash purchase	Barter	Bride-price	Made or caught	Other exchanges	Total
Hambo	9. 6.0	18.1.0	10.16.0	6.10.0	2.19.0	6.17 0	54. 9.0
Di	2.17.0	1.0.0	3. 0.0	3.14.0	10.11.0	2. 5.0	23. 7.0
Total	12. 3.0	19.1.0	13.16.0	10. 4.0	13.10.0	9. 2 0	77.16.0

(These figures are slightly different from those listed in Table 5 above as these exclude details for one household which was in mourning, and include details of articles previously held by another household but since stolen.)

556 555 435 436 In traditional Orokaiva society the possession of hambo and di demonstrated a man's prowess or that of his forebears. Wild pigs' tusks form the main components of most hambo and the spearing of wild pigs was a hazardous task requiring skill and courage. The next most important components were sea-shells, and they could only be obtained by contact with coastal folk (or from others who had contact with coastal folk). Such inter-tribal contacts appear to have been infrequent and risky. Feathers were obtained by snaring birds, a time-consuming process involving patient watching of intricately constructed traps and snares. The introduction of shotguns has facilitated the hunting of pigs and birds. There is now less skill and less time involved than previously. The trophies are consequently more abundant and of lower value. Likewise trading with the coastal people no longer requires courage or detailed

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

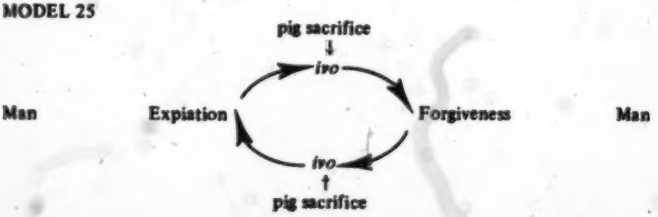
(2) See Crocombe, 1963.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasize even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 292 776 [825] [824]

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

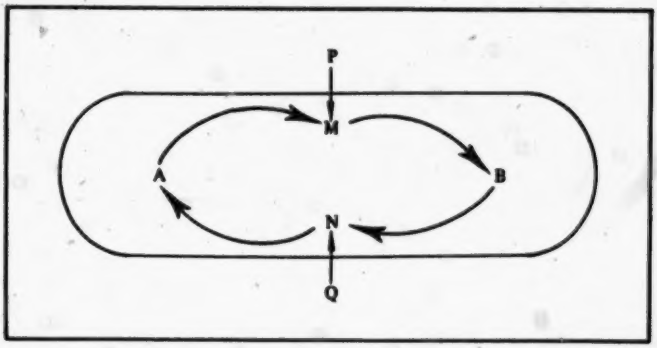
an economic standpoint, it is important that they represent storable wealth – the only storable wealth of the Orokaiva. Nearly every family today keeps *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

In the last five chapters exchange has been discussed largely on the assumption that it occurs on two levels. First, it occurs on the mythico-religious level where exchange relations are stated in the form of binary oppositions or possibly also some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations [622] of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[1] Cf. kiti iigari (p.30).

[515] [2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and seperate':

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

556 [25] [24] [43] [437] An important status indicator is the size of an individual's yam holding. Yams both enter into ceremonial exchanges and are stored for consumption during the dry season when garden foods are in short supply. Compared with taro, work on yams is 'hard' and not everybody grows them. In harvesting the owner seeks assistance from others and the services so rendered are normally reciprocated in the form of gifts of yams rather than the subsequent rendering of an equivalent labour service. The more assistance an individual can solicit the greater his potential capacity to increase his yam holding and so increase his standing in the community while meeting some of the needs of those without yams. In such a case there is no limit to the individual level of production although there is in demand of the group as a whole. However, there is no evidence to suggest this demand is met since annually people must resort to the production of less favoured foods such as sago to satisfy requirements. This suggests that the customarily defined span of activities may be so great as to leave the people without the capacity to satisfy their demand for yams, although the exchange system functioning through the network of ceremonial and leisure activities does permit the more even distribution of scarce resources among the group and provide its individual members with a higher degree of security than they would otherwise have.

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121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

454 money received from them. As demonstrated in Table 10:15, such
431 people serve as a major source of storebought goods, other than foodstuffs. The size of such gifts is demonstrated by the following two cases.

One: a householder visited his sister and sister's husband (also his wife's brother) working in Port Moresby. At the end of his visit he received $20 in cash, a dog and a suitcase containing the following items - 4 dresses, 2 pairs of underpants, 4 pairs of shorts, 5 shirts, 10 lengths of calico, 1 skirt, 2 pairs of child's shorts, 1 child's dress, 11 plates, 1 cauldron, 7 spoons, 1 blanket, 1 sleeping mat, 2 handkerchiefs and a child's shirt. From another of his wife's brother he received a wrist watch, while a third man paid his air fare back to Popondetta.

Two: a teenage girl spent about two months visiting and assisting her father's mother's brother's daughter and her husband on their holding at Sangara. During the course of her stay she received $1 in cash and at the end a further $2 together with the following items - flour (50c), margarine (30c), fish (20c), meat (80c), sugar (20c), rice (50c), tobacco (10c), matches (05c), and chewing gum (10c).

511 The expenditure patterns of cash are much the same for both cash and non-cash croppers; in both cases trade store purchases account for about half and payments to external agencies (licences, tax and mission offerings) account for a further one-fifth of the total. Non-cash croppers have less money available but utilise it in much the same manner - in effecting what are largely necessary exchanges [436] with the external sector. The small amount of money circulating as exchanges between villagers (12 per cent of income and 15 per cent of expenditure) reveals the non-cash croppers as realising a net credit of about $10, the cash croppers a debit of about $15. While little reliance can be placed on these figures they do seem to confirm the villagers' recognition of a distinct though restricted movement of money towards the former to supplement their limited cash resources and fulfil their requirements for it. In fact, the incomes of cash cropping households exceed those of all others, while, of the five households with the highest incomes, the heads [556] of four are the most respected within the sample. Thus, as with work, the intensity of exchange or activity in the monetary sector is apparently recognised as one criterion engendering respect among villagers. Alternatively, at the present level of commercialisation, it does not appear to conflict with customary considerations in the evaluation of status.

454 Even in the case of households with incomes of $2 per week there is little evidence of serious attempts at capital formation or investment. Any periodic excess of income over expenditure is normally kept as cash on hand in the house to be drawn on as required. Only four instances of monetary investments, involving two

A.[See Category 437, p.214--Analyst]

561 the ones with the largest surplus of production above their immediate household needs. This pattern, in association with the particular roles of the oldest and youngest age groups, appears to support the widely held proposition of individuals building up 'credit' within the community to draw upon in their old age. The data might equally be interpreted as suggesting that most of the transactions are concerned with personal aggrandisement and only the middle age groups are capable of achieving this. Thus, in the exchange of labour services, there is a significant outflow from the 15 to 24 years age group and an inflow into the 55 years plus - that is, from a group where labour is the one abundant resource to another where it is scarce and needed to achieve subsistence - yet the 35 to 44 years group also registers a net inflow. Much of the labour received by the 55 years plus age group was connected with sago-making and this same group accounted for half the sago distributed. Since the individual concerned, within this age group, was unable to collect his own breadfruit and had no other way of reciprocating other gifts, offering one of his sago trees proved an effective way of settling his obligations and, at the same time, meeting his own dry season food requirements while expending little of his own labour.

[556] Each of the three other age groups plays an important role in the flow of specific resources. The 45 to 54 years group largely controls the movement of pigs, one of the main traditional indicators of wealth, but not of products associated with the monetary sector. These latter are divided differentially between the 35 to 44 and 25 to 34 years groups, the first being concerned primarily with cash cropping, from which its revenue is mostly derived and therefore its access to storebought goods, while the second relies heavily on remittances and parcels of goods from relatives in wage employment.

In effect the three middle age groups control the circulation of 'wealth', with that of the 25 to 34 years group being founded almost exclusively on non-traditional goods, that of the 45 to 54 years on traditional, and that of the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (garden produce and cash crops).

<u>The relationships between exchange and the socio-economic status of transacting partners</u>

177 Within the total economic system, of which the subsistence villagers comprise the basic stratum, a number of distinct socio-economic categories can be identified with each playing a distinctive role in the pattern of exchanges. On the one hand there are the institutions or organisations associated with the expatriate community or directly promoted by them - the Administration, the OCGS, the Anglican mission, the trade store, the market, etc. - with which transactions are of a formal nature and operate between the individual villager and 178 others in their roles as members of an institution. On the other 166

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 11:8

Inonda: transactions of main categories of subsistence produce and services, by household
(quantity per man-week)

Household	Garden and forest produce (lbs) A	D	Hunting and fishing produce (lbs) A	D	Labour services (hours) A	D
16*	31.7	28.5	4.4	1.4	2.5	1.2
17*	29.1	27.4	3.9	6.6	1.8	0.6
18	50.3	59.9	4.3	1.4	1.6	1.8
19	21.0	7.8	0.3	4.8	0.3	2.3
20	29.5	22.1	3.7	20.1	0.3	1.6
21*	35.2	31.6	6.5	4.9	2.6	1.0
22	11.2	21.6	4.1	-	-	-
23*	32.5	26.5	6.0	9.7	2.6	1.3
24	17.9	36.6	11.7	1.9	0.6	0.2
Mean for 9 households	29.7	29.0	5.2	6.3	1.6	1.1
Mean for cash cropping households	32.0	28.5	5.1	5.3	2.4	1.0
Mean for non-cash cropping households	26.6	29.7	5.3	7.8	0.5	1.2

* Cash cropping households.

17 and 21) all received more assistance in total than the average, while households which assisted with sago-making, such as households 19 and 20, disposed of more in total. However, household 23 received assistance in house construction and subsistence gardening but not in sago-making. In addition to receiving help with sago-making, household 21 received assistance in establishing a coffee garden. Most of this assistance was given by his mother, the widow in household 18. The widower gave most assistance per week (as well as a considerable quantity of hunting produce), in return for the surplus of vegetable produce he received.

Acquisition and disposal rates for storebought goods and cash also differ little from one household to another. Household 22, although present only during period I, records a comparatively high rate of transactions for food and stimulants. While resident in the village the head spent several weeks working for a settler and two weeks away on a fishing expedition. It is probable that his gardens suffered accordingly, making considerable purchases of rice necessary. The man belongs to the traditionally subordinate clan branch, Jego'undi, and, being neither a cash cropper nor a particularly influential person, his circumstances may have provided an incentive

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 11:9

Inonda: transactions of cash and main categories of storebought goods, by household
(mean amount transacted per man-month in $)

Household	Cash		Food and stimulants		Household and working equipment	Personal goods
	A	D	A	D	A	A
16*	2.12	2.95	1.34	0.24	0.16	0.65
17*	1.19	1.26	1.54	0.27	0.14	0.97
18	0.07	0.39	1.35	0.30	0.23	0.44
19	0.23	0.38	0.90	0.02	0.22	0.18
20	3.12	3.76	2.94	0.30	0.37	0.70
21*	3.20	2.89	3.08	0.43	0.40	0.20
22	2.12	2.93	3.14	0.62	0.24	1.04
23*	11.45	12.33	4.22	0.70	1.71	3.99
24	3.97	1.44	2.20	0.15	0.15	0.01
Mean for 9 households	3.39	3.53	2.32	0.34	0.43	0.99
Mean for cash cropping households	4.23	4.64	2.41	0.39	0.56	1.38
Mean for non-cash cropping households	2.26	2.01	2.20	0.26	0.25	0.45

* Cash cropping households.

to demonstrate wealth not only by buying rice but also by distributing it frequently. This household is second only to the entrepreneur's (household 23) in its level of transactions of storebought goods. In contrast, it acquired relatively little garden produce and a below-average amount of game and fish per week and it took no part in the exchange of services, reflecting the weakness of its links with the Andirihaha residents. Household 23 has the highest rate of acquisition of personal goods. Apart from purchases (see Table 11:11) this household received the clothing parcel from Australia. Household 17 also has quite a high rate of acquisition of personal goods. During the survey, the husband and wife had a quarrel in which most of their clothing was destroyed and had to be replaced - much of it by gifts from the wife's sister, who is married to a plantation labourer.

Over a given period cash croppers receive more of most classes of items than non-cash croppers, with the exception of fish and game. Non-cash croppers tend to dispose of more subsistence goods and services, but cash croppers dispose of larger amounts of monetary items, admittedly largely due to the high level attained by the entrepreneur in household 23. Apart from this household, there is nothing to distinguish individual households which rely on commercial crops for their income from households relying on other sources.

In the same way, there appears to be little relationship between the levels of transactions in most categories and either the rank of household heads or the total area cultivated by households. Where possibly significant differences in the rates of acquisitions and disposals appear, they are mostly explainable in terms of the various factors mentioned above. However, as regards rank, it is striking that the leading man's household is first in its rate of acquisition of most items, though only second for taro and pigmeat. It leads in acquisitions of both cash and subsistence sector services and is second in its rate of disposals of taro, banana, pigmeat and subsistence services.

It appears, then, that high status confers both material responsibilities and benefits. The main advantage accruing to the entrepreneur seems to be that he needs to spend less time than others in gardening and the time thus saved is directed into cash-producing activities.[1] This consideration applies only to the leading men and transactions according to the other rankings do not fall into a noticeable order.

(b) The expenditure of cash

Table 11:10 shows the pattern of purchases by each household during each recording period and over the whole survey. While there are considerable differences between households in the total value of purchases and a wide range in the proportion of cash income devoted to commodity purchases, there is less difference in the actual composition of the expenditure patterns (see Table 11:11).

For all but one household (which has a total expenditure below $3), food and stimulants account for over half of the purchases. Rice forms between 7 and 16 per cent of the total of all except the Jego'undi household, the proportion varying little over the survey. Flour on the other hand, was bought only during period II, when it formed almost one-quarter of all purchases and the proportions of tinned meat and fish in particular were reduced. The proportion formed by clothing and personal goods is also reduced at this time. All households, except the widow's, purchase flour, the amount bearing no relation to income.

None of the households containing the older people (18, 19 and 24) bought clothing, while only one (24) bought any other personal goods or tools and equipment. Apart from these, the other non-cash cropping households (20 and 22) also spend small proportions on these categories and on household goods compared with the proportions of expenditure allocated by the cash cropping households (16, 17, 21 and 23). Clothing accounts for one-quarter of the expenditure of three of the latter households.

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[1] See pp.161-2.

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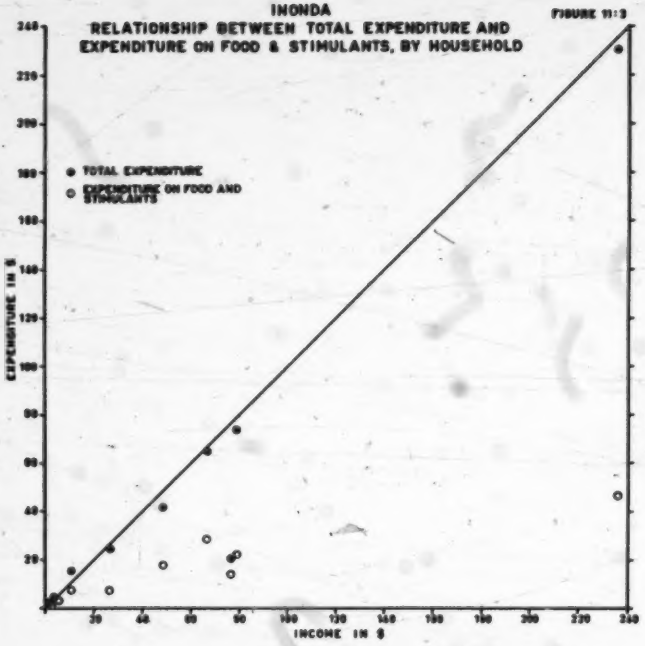
INONDA
RELATIONSHIP BETWEEN TOTAL EXPENDITURE AND EXPENDITURE ON FOOD & STIMULANTS, BY HOUSEHOLD

FIGURE 11:3



priority. Inonda people with incomes below $20 over the 26-week survey spent virtually all their income in purchasing (apart from tax payment). As income rises above this level, expenditure on commodities increases but people also are able to invest their money or to circulate it in the form of gifts, with the latter having greater priority. Monetary investment (whether in purchases of shares or deposits in savings accounts) usually involves larger sums than gifts which may be as small as 10c, but gifts are much more frequent and are a more characteristic element in the exchange patterns. Naturally, the higher cash income a household receives, the more it is able to dispose of in gifts as well as meeting its own material needs. As generosity in distribution is a major source

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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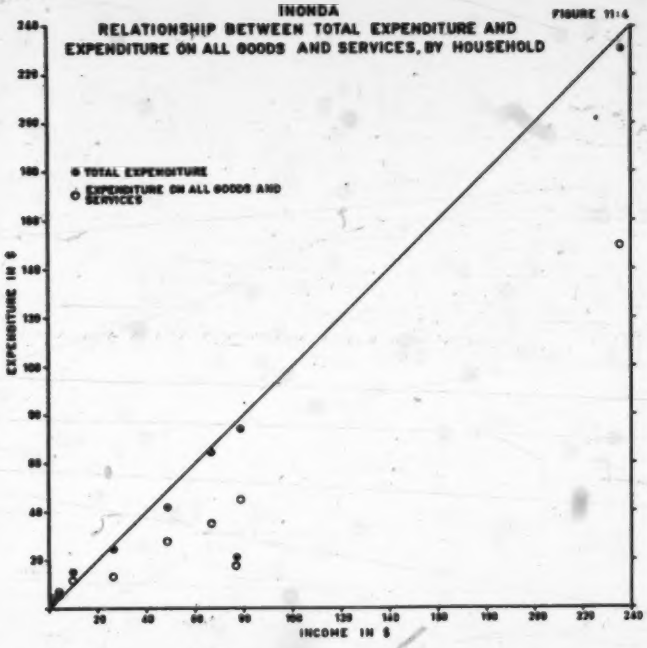

of prestige, income should show a positive correlation with rankings and Table 11:12 illustrates this.[1]

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Again, the relationship is not clear-cut - household 19, the widower, has a very low income but high status in certain respects, reflecting his age, his knowledge of land and personal relationships

[1] All the household heads were ranked in terms of both the people's own evaluation of their status relative to each other, and the researchers' observations on individual wealth, participation in village affairs, influence in decision-making, etc.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Table 11:12

Incomes: cash income during the whole survey period and rank of households

Household	Rank	Income in $
23	1	147.72
20	2	41.44
24	3	41.30
21	3	39.40
16	4	38.50
17	4	16.40
22	4	10.60
19	2	1.50
18	4	0.50

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and his generosity with his main resource, labour. Household 16 is grouped in the lowest rank although its income level is in the same order as people in the second and third ranks. A further complication is that household 24, though accorded a relatively high rank, has a comparatively low rate of expenditure, particularly in the form of gifts of either cash or storebought foods. Allowing for these factors, however, it seems that the qualities that gain respect for an individual within the traditional village sphere of operation also tend to be those that encourage the acquisition of cash.

Income and expenditure of cash over 47 weeks

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The figures in Table 11:13 represent current income from all sources, including withdrawals from savings accounts and all expenditure, including deposits in savings accounts. Unlike the data for other items of exchange, details of income and expenditure of cash were collected not only for the three recording periods but also for the intervening weeks. Although this subsidiary data may be rather less accurate than the rest, it has been taken into consideration in some of the tables below and thus provides a record of cash transactions over 11 months, from February 1964 to January 1965.

Table 11:13 shows the total income and expenditure of cash per household over 11 months, including the coffee season, and reveals that there is a net inflow of cash amounting to $72.96 for the village as a whole or $8.12 per household. In fact, however, both income and expenditure vary widely between households. Also, the income of households 16, 21 and 23 includes withdrawals from savings accounts and the expenditure of household 23 includes a deposit in his account. Household 23 has the highest income with $235.42, which is 43 per cent of the total for all 9 households, but its expenditure

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they acquire less than men in this way) and husbands also give their [439] wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the routine daily exchanges of cooked food. This is true of flour also [556] in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

household head. Only one man looked after his own hambo and di, and he was an elderly man who spent much of his time at home. The last household had no valuables. It consisted of a young couple and the man had given what few articles he possessed for his wife's bride-price. He has a job at present and is meeting his traditional commitments with cash.

The processes by which the valuables were acquired are shown in the following table (in equivalent cash values):

Table 6

Acquisition of hambo and di

	Inheritance	Cash purchase	Barter	Bride-price	Made or caught	Other exchanges	Total
Hambo	9. 6.0	18.1.0	10.16.0	6.10.0	2.19.0	6.17 0	54. 9.0
Di	2.17.0	1.0.0	3. 0.0	3.14.0	10.11.0	2. 5.0	23. 7.0
Total	12. 3.0	19.1.0	13.16.0	10. 4.0	13.10.0	9. 2 0	77.16.0

(These figures are slightly different from those listed in Table 5 above as these exclude details for one household which was in mourning, and include details of articles previously held by another household but since stolen.)

In traditional Orokaiva society the possession of hambo and di demonstrated a man's prowess or that of his forebears. Wild pigs' tusks form the main components of most hambo and the spearing of wild pigs was a hazardous task requiring skill and courage. The next most important components were sea-shells, and they could only be obtained by contact with coastal folk (or from others who had contact with coastal folk). Such inter-tribal contacts appear to have been infrequent and risky. Feathers were obtained by snaring birds, a time-consuming process involving patient watching of intricately constructed traps and snares. The introduction of shotguns has facilitated the hunting of pigs and birds. There is now less skill and less time involved than previously. The trophies are consequently more abundant and of lower value. Likewise trading with the coastal people no longer requires courage or detailed

preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

Table 15

Replacement value of tools and equipment

A	$101.70	E	$138.05	I	$164.30
B	87.50	F	82.90	J	142.80
C	254.80	G	113.60	K	46.40
D	54.70	H	376.45	L	222.40
Average	$124.68		$177.75		$143.97

Traditional valuables. The possession of hambo (bone and shell ornaments) and di (feather headdress) may give some indication of a man's adherence to traditional values. In traditional Orokaiva society the possession of such valuables demonstrated wealth and prowess, but this function is now being taken over by money, as the relative importance of cash as the means of procuring desirable products increases, and money transactions become more frequent. Hambo and di are inherited through the father and sometimes other relatives, and they are usually distributed among the surviving sons. It is difficult to assess the traditional valuables owned by any one individual, as a man often looks after his younger brothers' shares and more than one person, both within and without the nuclear family, may have rights to the hambo and di kept in a particular household.

As shown in Table 16, subjects A to D possessed an average of $31.51 worth of traditional valuables, subjects E to H $46.16, and I to L (only one of whom has any such valuables) $7.50. H, the owner of the largest quantity of valuables, acquired them by inheritance and does few transactions with them today.

Table 16

Cash value of traditional valuables*

A	37.33	E	50.00	I	30.00
B	25.00 (assessed)	F	11.15	J	-
C	63.70	G	49.90	K	-
D	-	H	73.60	L	-
Average	31.51		46.16		7.50

* Values were calculated according to rates set out in Crocombe and Hogbin 1963:97-9. If a man held valuables jointly for himself and other kin, only his proportionate share is listed above.

657 423 been at Ombi-Tara, in favour of briefer parties which distract less from market oriented activities.[1]

182 [829] There was verbal evidence at Ombi-Tara of further rejection of old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] [554] [614] Leadership in the traditional societies of Papua-New Guinea is generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance [556] in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] [627] The functions of the clan leader are little changed by the new tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the
information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepa men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepa men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
the subsistence sphere. Money was essential for payment of taxes
511 and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
459 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepa men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

657 I have not yet referred to the deepest acculturative influence
177 that was absorbed before the time of the eruption, namely the abolition of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold affects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the
(556) war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the
(484) means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

(731) Developments since 1951 provided increasing opportunities for gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage. 423 425 583

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship. 582 423 425 [613] [166] [571]

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence: 121

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status. 423 583 425 [558]

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him. 423 431 736

3. Cripples and widows are often in a similar position. They may need a

652 expected to levy. He wrote his Bishop that he would not collect the
871 tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

971 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a
[431] major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's educatim differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle
[558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could
[829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have
[191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

571 But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

571 Relations with uterines, affines, and more distant agnates (that is, those
604 beyond the lineage, and those who are resident in other villages) follow the
881 pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

602 How can we explain that, at least in Sasembata, the Orokaiva classify
572 guest friends with the sibling group (by applying the terms *apa/eambo* to
171 them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

431 Secondly, the custom of classifying guest friends with siblings is not
437 general among Orokaiva; the Sangara use the term *namei*. Furthermore,
572 terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would [576] be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and [626] if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

[558] In considering the manner in which these gifts are given, Sahlins'

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

462 predominate - the maintenance and harvesting of taro - which together account for 22.9 per cent of their activity time. Men do most planting of taro and are primarily concerned with the cultivation (including harvesting) of both yams and the minor crops. The labour of harvesting yams is shared with the women, although the men direct the operation since yams are a food crop of considerable social and economic importance, and are stored against future needs. Many of the minor crops are tree crops - areca, coconut, breadfruit, etc. - and the fact that men are more adept at harvesting them largely accounts for their greater involvement.

462 Clearing, although both arduous and designed to cater for long-term food requirements, is something of an anomaly in that only 61 per cent of the time expended is contributed by men. However, the women's role is subsidiary, the men being responsible only for the initial clearing and burning, and the women cleaning up the debris and piling it around tree stumps to burn again.

The fact that most marketing of subsistence crops is done by women may be viewed as a logical extension of their gardening activities. The few marketed by men - areca, tobacco, etc. - are considered male crops and a woman would not normally harvest them. But contrast, the marketing of cash crops is dominately a male concern, with the women contributing to the harvesting and processing of coffee on account of its very high labour requirements.

[461] The single most time-consuming activity carried out by either sex is cooking, accounting for 22.1 per cent of the women's activity time. Ninety-seven per cent of all cooking is done by women, the only exceptions being the preparation of meat at feasts or for 'marketing'.

With the exception of parties which mainly attract the young men, both sexes are involved to much the same degree with social obligations and likewise there is little distinction according to sex in connection with the external agencies. Finally, care of the sick concerns women more than men only because it is they who take children to the infant welfare clinics.

561 (ii) By age. While there is not, strictly speaking, any division of labour according to age, there are significant variations in both the general level of activity and allocation of time. These patterns reflect both the customarily defined responsibilities of the several age groups and their diverging interests in the contact situation. Table 6:8 shows the oldest and youngest age groups to be the least active. The reasons for this need no elaboration. [461] The limited involvement of young people in village life gives them time and opportunity for other pursuits: for the 15 to 24 years age group temporary absences accounted for 10.3 per cent of survey time and 6.5 hours per man-week were spent in paid work, but only 7.9 hours in subsistence gardening, the dominant activity of all other age groups.

As age increases, a progressively higher percentage of total time is devoted to productive and to subsistence activities. Commencing at 62.9 per cent and 55.4 per cent respectively in the case of the 15 to 24 years age group, the figures reach 80.8 per cent and 87.2 per cent among those over 55 years. These progressions do not involve an increase in total time devoted to the particular categories. From 25 to 44 years people participate in all forms of activity, while later in life they spend progressively less time on activities not directly concerned with subsistence.

Table 6:8

Sivepe: the division of labour, by age
(hours per week)

Age group	15 to 24	25 to 34	35 to 44	45 to 54	55+
No. and sex of individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total weeks present	105.9	188.0	115.3	252.6	51.1
Subsistence					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	15.0	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.5
Household	3.7	8.7	3.0	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	3.0	1.8
External					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	1.0	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.9	0.2	-
Total	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.6	77.9	80.8
Subsistence time*	55.4	73.8	74.0	79.1	87.2
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The one age group not considered in the survey is children. Customarily the parents delegate various tasks to them as they get older, but the current picture is somewhat complicated by the fact that over 80 per cent of all children in the area receive at least a few years' primary schooling. Since the type of education provided has little direct bearing on village life or economy it is not uncommon for such children to profess some disdain for village tasks and the extent to which they assist their elders frequently depends upon the degree of parental authority. Children up to the age of about ten years normally play around the village in the morning and evening, going down to the creek during the hottest part of the day, when they might do a little fishing. If they accompany their parents to the garden they are left in the garden shelter or under the shade of a tree and the older ones are directed to look after the younger. Otherwise the only jobs they appear to do regularly are fetching water and tending the fire, although the older girls are given such household tasks as washing dishes and also attending to infants. Boys over the age of about ten years may hunt, build traps in the forest and do some of the more hazardous jobs like scaling trees for green coconuts, while both they and the girls are called upon to assist in pulping coffee. For those attending school, most of these activities are restricted to the weekends and holidays; even then they may resist their parents' requests for assistance, preferring instead to do a little hunting or fishing for their own amusement or to picnic together.

501 [871] 857

The weekly pattern, daily routine and duration of activities

It is customary for ethnographic surveys to devote a section to the description of a typical working day and, in its treatment of the Orokaiva, Williams' account (1930:21-31) is no exception. What he considers to be a normal routine comprises an early breakfast from the cold remnants of the previous evening's meal followed by the departure of family groups to their gardens where they pursue their various tasks. By noon these are completed and most families are back in the village to rest in their houses for an hour or two. 'The real activity of the village commences at about three o'clock' with the preparation of the evening meal by the women, the men meanwhile restricting themselves to sedentary tasks or conversation. This is eaten near nightfall and a period of conversation or informal entertainment follows until everybody retires to sleep. Such a routine may be modified by climate, ceremonial activities and the occasional demands of the Administration and recruiters.

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Regardless of whether the daily routine in the 1920s fully conformed to Williams' description, the present pattern is substantially different, not only for those activities which are directly related to the increased commercialisation of the economy and interaction

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Table 7:9 shows the activities that consume most time of men and women separately, and of the nine most important activities for each sex, only fishing, planting taro and miscellaneous ceremonies appear for both men and women. Apart from planting taro and forest clearance, garden tasks account for a comparatively small proportion of men's time. The other food-producing activities have greater significance, with fishing, hunting and sago-making accounting for over one-fifth of the total time spent by men. It is striking that paid work is the third most important category of activity for men in general, even though the entrepreneur spent only a few hours and the widower no time at all in this way. Since five of the eleven men are in the youngest age group, this group's patterns have a marked influence on the pattern for men as a whole and largely account for the significance of fishing, visiting and miscellaneous ceremonies.

Garden tasks, particularly the maintenance and harvesting of taro, are much more important for women than for men. However, cooking is by far the most time-consuming activity for the former and the other main household chore, washing, is fifth in importance. Much of the time that women spend in fishing is with their husbands but they do fish alone - generally with small nets - while returning from the gardens. As described above, most of the time spent in preparing tools and equipment is for string bags and pandanus-leaf sleeping-mats.

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There is no specialisation of labour according to age. The main apparent differences are that young people (under 25 years) tend to spend more time in non-productive activities such as visiting and miscellaneous social ceremonies, whereas those over 45 have a more restricted range of activities and devote a higher proportion of their time to gardening.

512

The weekly pattern of activities

As in Sivepe, there is a semi-official, ideal pattern of work allocation through the week. Monday and Tuesday are said to be for cash cropping, Wednesday for mission work, Thursday and Saturday for subsistence gardening, Friday for council work and Sunday for rest. Although this ideal does have some bearing on behaviour, the actual pattern is much less clearcut.

As Table 7:10 shows, clearing, fencing and cultivation of subsistence gardens take place throughout the week and only a slightly smaller amount of time is devoted to these activities on Sundays than on other days. Cash cropping receives most attention on Mondays and Tuesdays as in the ideal pattern, but it is still quantitatively much less than the attention given to subsistence gardening or to other food-producing activities. On these days cash cropping accounts for 5 per cent of total time spent, compared with 2 per cent over the week as a whole. Church work takes place

[TEXT CONTINUED ON PAGE 157]

462
563

Table 10:13

Sivepe: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce: total	47	53	100	35	65	100
deviant items:*						
Taro	42	58	100	18	82	100
'Soup'	57	43	100	7	93	100
Sago	60	40	100	90	10	100
Breadfruit	28	72	100	10	90	100
Areca, lime, etc.	52	48	100	71	29	100
Pig (domestic)	95	5	100	94	6	100
Produce of hunting	79	21	100	72	28	100
Cash crops: total	-	-		100	-	100
Labour services: total	88	12	100	66	34	100
of which:						
Cash	92	8	100	46	54	100
Subsistence	88	12	100	70	30	100
Storebought goods: total	45	55	100	40	60	100
of which:						
Foodstuffs and stimulants	58	42	100	37	63	100
Personal	31	69	100	20	80	100
Household	52	48	100	-	100	100
Tools and equipment	90	10	100	83	17	100
Cash	73	27	100	70	30	100

	Men	Women	Total
Number of days surveyed	2,323	2,418	4,741
Percentage of total	49	51	100

* Items deviating significantly from the total for the category.

In effect, apart from transactions associated specifically with cash (and therefore including the marketing of cash crops), exchange patterns manifest a close association with the basic features of the organisation of production in relation to the sexes.

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(ii) By age. Table 10:14 outlines the percentage distribution of goods and services between five age categories and it also compares these distributions with the relative position of each category within the sample in terms of man-days observed. It demonstrates that, in general, the flow of goods and services is regulated by individuals within the 25 to 44 years age bracket, who are the most active within the sample and therefore, presumably,

[TEXT CONTINUED ON PAGE 212]

561

Table 10:14

Sivepe: exchange of goods and services, by age
(percentage distribution)

Age group (in years)		15-24	25-34	35-44	45-54	55+	Total
No. and sex of individuals		2M,5F	4M,7F	4M,1F	5M,5F	2M	35
Total days present		699	1,238	755	1,686	343	7,471
Percentage of total days present		15	26	16	36	7	100
Subsistence produce: total	A	7	28	24	35	5	99
	D	4	34	23	35	5	101
deviant items:							
Sweet potato	A	8	42	20	25	5	100
	D	-	60	15	22	2	99
Sago	A	2	15	26	50	7	100
	D	-	7	39	2	52	100
Pig (domestic)	A	-	6	25	65	4	100
	D	-	2	25	73	-	100
Hunting produce	A	2	25	19	51	3	100
	D	-	35	40	26	-	101
Cash crops: total	A	-	-	-	-	-	-
	D	-	21	52	27	-	100
Labour services: total	A	-	6	48	15	30	99
	D	22	20	32	23	2	99
of which:							
Cash	A	-	15	77	8	-	100
	D	11	13	31	43	2	100
Subsistence	A	-	5	45	16	34	100
	D	23	23	32	20	2	100
Storebought goods: total	A	8	40	20	29	3	100
	D	5	37	21	37	-	100
of which:							
Foodstuffs and stimulants	A	10	35	22	30	3	100
	D	8	48	19	24	-	99
Personal	A	11	75	7	5	1	99
	D	-	12	-	88	-	100
Household	A	11	24	25	40	-	100
	D	-	66	-	34	-	100
Tools and equipment	A	5	23	53	20	-	101
	D	3	9	62	26	-	100
Cash: total	A	9	35	27	27	1	99
	D	9	34	26	31	1	101

561 the ones with the largest surplus of production above their immediate household needs. This pattern, in association with the particular roles of the oldest and youngest age groups, appears to support the widely held proposition of individuals building up 'credit' within the community to draw upon in their old age. The data might equally be interpreted as suggesting that most of the transactions are concerned with personal aggrandisement and only the middle age groups are capable of achieving this. Thus, in the exchange of labour services, there is a significant outflow from the 15 to 24 years age group and an inflow into the 55 years plus - that is, from a group where labour is the one abundant resource to another where it is scarce and needed to achieve subsistence - yet the 35 to 44 years group also registers a net inflow. Much of the labour received by the 55 years plus age group was connected with sago-making and this same group accounted for half the sago distributed. Since the individual concerned, within this age group, was unable to collect his own breadfruit and had no other way of reciprocating other gifts, offering one of his sago trees proved an effective way of settling his obligations and, at the same time, meeting his own dry season food requirements while expending little of his own labour.

[556] Each of the three other age groups plays an important role in the flow of specific resources. The 45 to 54 years group largely controls the movement of pigs, one of the main traditional indicators of wealth, but not of products associated with the monetary sector. These latter are divided differentially between the 35 to 44 and 25 to 34 years groups, the first being concerned primarily with cash cropping, from which its revenue is mostly derived and therefore its access to storebought goods, while the second relies heavily on remittances and parcels of goods from relatives in wage employment.

In effect the three middle age groups control the circulation of 'wealth', with that of the 25 to 34 years group being founded almost exclusively on non-traditional goods, that of the 45 to 54 years on traditional, and that of the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (garden produce and cash crops).

<u>The relationships between exchange and the socio-economic status of transacting partners</u>

177 Within the total economic system, of which the subsistence villagers comprise the basic stratum, a number of distinct socio-economic categories can be identified with each playing a distinctive role in the pattern of exchanges. On the one hand there are the institutions or organisations associated with the expatriate community or directly promoted by them - the Administration, the OCCS, the Anglican mission, the trade store, the market, etc. - with which transactions are of a formal nature and operate between the individual villager and others in their roles as members of an institution. On the other

178
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437 produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's [431] sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

437 Other major exchange relationships operate with affines, matri-
561 lateral and patrilateral kin and are typically restricted to members
[602] of the individual's age group, for example, cross-cousin, wife's brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, who were of both sexes and stood in a defined relationship where [178] each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

437 In effect, regular exchanges operate between members of one's
602 own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[601] [1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [177]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. How in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timunu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are
[538] predominantly in the 35-45 year age group whereas Seho is predominantly a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

461
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512

TABLE 18

SIVEPE: THE DIVISION OF LABOUR BY AGE
(In Hours Per Week)

Source: Waddell and Krinks 1968: 104

Age Group	15-24	25-34	35-44	45-54	55+
No. of Individuals	2M, 5F	4M, 7F	4M, 1F	5M, 5F	2M
Total Weeks Present	105.9	128.0	115.3	252.6	51.1
SUBSISTENCE					
Productive:					
Clearing	2.3	2.7	5.2	3.8	5.8
Subsistence gardening	7.9	13.8	13.5	14.9	12.3
Other subsistence food production	1.8	2.6	5.4	1.6	1.4
Other subsistence activities	1.1	0.8	4.1	2.1	1.6
Household	3.7	8.7	2.9	5.6	0.4
Non-productive:					
Social obligations	4.1	3.2	4.7	2.9	1.8
EXTERNAL					
Productive:					
Cash cropping	0.4	1.7	3.1	1.5	0.1
Paid work	6.5	0.5	0.9	0.9	-
Non-productive:					
External agencies	5.7	6.9	6.9	5.1	2.6
Sickness	1.8	1.2	0.8	0.3	0.7
Miscellaneous	2.4	1.0	0.8	0.2	-
TOTAL	37.7	43.1	48.5	39.3	26.6
Productive time*	62.9	71.5	72.7	78.1	80.9
Subsistence time*	55.4	73.8	74.1	78.4	87.3
Days temporarily absent*	10.3	1.3	8.5	6.5	5.3

* As a percentage of total survey time.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowi*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
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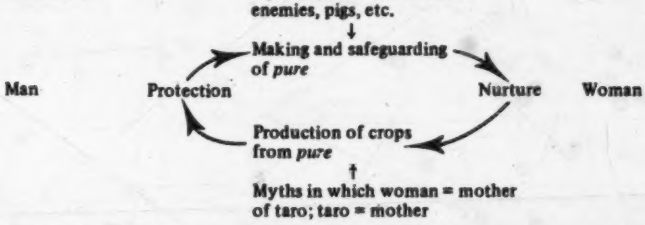
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

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OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gaga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gaga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gaga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. [773] In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

261 In addition to father, mother and twins, the myth contains a fifth character, 773 the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

824 If female nature, in its pure state, is found in the taro garden and male nature, 773 in its pure state, in the jungle, then it follows that human beings, being born of a 539 man and a woman, have a mixed nature. In Totoima this dual nature is imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

824 The analysis of this myth has enabled us to understand more precisely the 431 sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'. The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind 562 when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

824 Gifts of taro may mediate either the establishment or perpetuation of a social 431 relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by 621 every Sivepe household every day. In the twenty-eight days for which I took

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly
[554] towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be
276 shared, after the meeting, between the men and their wives. The men are to ask their wives whether the taro are ready. This is a ritual question, as the men go to
●562 the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

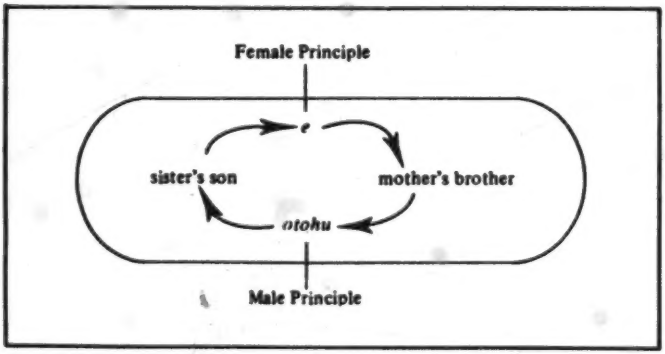
6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

As an example of the operation of this model, we may summarise the discussion concerning the sacred flutes and the *otohu*. On the mythical level there is a binary opposition between a male and a female principle. On the social level there is a relation between mother's brother and sister's son, which is mediated (*a*) by the mother; (*b*) by the gift of an *otohu*. On the technological level, there is opposition between a male and female initiation flute (respectively *otohu* and e = mother). These complex interrelations are shown with great economy in the following diagram:

MODEL 34



The objects of mediation under discussion in the preceding chapters have been mostly material objects, but the model is by no means confined to these. It is equally applicable to social objects of mediation. Indeed, in model 34, the word *e* appears in a double sense: as one of the two initiatory flutes, i.e. a material object, but simultaneously as 'mother', a social object. In the taro sociogram, we introduced a series of human mediators between a set of distant but equal exchange partners (model 20). In discussing the *aguma*, we found the same pattern between a set of distant but unequal exchange partners (model 31). Similarly, we may regard the mother's brother as mediator between initiand and the spirit world.

Some of the most important social exchanges are those which are mediated by a woman who is a sister of one of the partners and the wife of the other. We have already looked briefly at this type of exchange when discussing the coconut and betelnut myth (model 29). In thus equating woman with an 'object of mediation' we are not thereby postulating any essential inequality between men and women except in as far as the Orokaiva happen to be patrilocal and patrilineal, so that it is the women, not the men, whose sexual role places them in a position of mediation. We are merely suggesting that two persons standing in a relation of *dambo* mediate their social relationship through a woman with which each, in a different way, is identified, one sexually and the other non-sexually. The asymmetry is balanced out by a counter-prestation on the part

A [See p. 182, Cat. 881--Analyst]
B [See p. 135, Cat. 431--Analyst]
C [See p. 171, Cat. 824--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the 'husband' who either gives a woman in exchange (direct marriage exchange) or else makes some kind of reparation for having deprived his exchange partner (generalised marriage exchange).

REFERENCES

1. Erikson, describing 'the beginnings of identity' in the adolescent, comes rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patriclan in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

62 All land around Sivepe and neighbouring villages is divided
[103] into named areas which we will call 'blocks'. Each is usually a
[128] locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinaguzu or Korinaturu. For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 All land constituting territory of the Jegase, Timumu or others
[428] in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is
● [562] no longer very active in village life or if the younger men are only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land
428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. [B]

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

[1] See pp.44-5. 1

[TEXT CONTINUED ON PAGE 79]

A,[See Category 245, pp. 44-45--Analysis]

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[273]

Although without access to a shotgun, Palminus spends even more time in hunting than Linton (98 per cent of the 9.1 hours devoted to other subsistence food production). Guitar parties account for over half the time spent on social obligations and, while they normally appeal primarily to unattached youths, Palminus is attracted to them by the liquor (including beer, gin, rum and methylated spirits) often on sale.

The time spent in coffee production, 5.9 hours per week, is a particularly high figure when it is considered that this work was confined to little more than one-third of the total survey period. When, during the latter part of the dry season, Palminus had completed harvesting his own coffee he agreed to pick in the garden of a member of Seho clan. Although he did no paid work while resident in the village, over half of the 9.5 per cent of survey days on which he was absent was spent at Sangara constructing a house for a settler, with a view to receiving a cash payment for it at the end.

Gorukari. Gorukari is aged 32 years and a married woman with five children, all under the age of 12 years. The two eldest attend Sasembata school, one, a six year old, refuses to go, and the others are below school age, one being still at the breast. Although she received a few months' schooling at Sasembata, her experience of Western culture is slight and in this respect she is typical of the women. Her husband is not unlike Palminus in that he is industrious, interested in cash cropping but not a particularly influential person.

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On account of the size of her family and age of her children, Gorukari has a heavy burden of basic subsistence gardening and household tasks and while her eldest daughter, aged 11 years, could be of considerable assistance, regular attendance at school prevents this. In addition, Gorukari's domestic obligations often extend to the care of her husband's father and mother plus two children who reside next door. The father is over 55 years and the mother only a little younger and both are frequently sick.[1]

With a mean activity week of 49.0 hours, 62 per cent of her time is spent on subsistence gardening and household tasks, taro gardening predominating in the former and cooking in the latter. This figure contrasts with the sample mean of 46 per cent of total

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1 He was sick, or absent through sickness, on 30 per cent of potential survey days and she on 26 per cent.

time. In effect Gorukari is concerned essentially with producing and preparing for consumption the staple food, taro.

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The figure of 49.0 hours per week is somewhat misleading in the case of such a woman where so much time is taken up with care of children and minor household tasks which do not lend themselves to quantitative analysis. In following her movements through a single day it was found that, between rising at 0610 and finishing the evening meal at 1845, Gorukari spent only 1 hour 50 min. actually resting or eating. She was therefore active for a total of 10.8 hours compared with an 'activity' figure of 8.1 hours. From 1845 until 2230, when she retired, she sat and talked with her husband. Assuming this to have been a typical day, a woman such as Gorukari has an activity week of about 75 hours.

Social obligations account for 3.1 hours per week, 55 per cent spent in visiting. Not only is this substantially less than the figures for Linton and Palminus but it reflects a somewhat different emphasis. While the role of women in ceremonial life is subsidiary to that of the men, they are often responsible for the more informal exchanges which are a characteristic feature of Orokaiva life and, since the society is typically a patrivirilocal one, it is to be expected that the women spend a significant amount of time visiting their kin.

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Gorukari's primary concern with food gardening and household tasks is expressed in the general distribution of her time. In particular she is more concerned with subsistence activities than the sample in general, these accounting for 79 per cent of her total activity time, while she also places greater stress on productive tasks. These facts are manifested in both the infrequency and short duration of her absences from the village which amount to only 1.1 per cent of potential survey days.

Olga. Olga is aged about 48 years and the wife of the most progressive of the older generation - a man with extensive non-traditional experience. They have eight children, the eldest of whom resides, with his family, next door. The two youngest, girls aged 10 and 14 years, attend Sasembata school and still live at home. All but one of the other children are married and normally reside elsewhere.

Subsistence gardening and household tasks dominate Olga's activities to an even greater extent than they do Gorukari's, accounting for 89 per cent of total time in an activity

512 criticised by her husband and by others, particularly when her husband's mother was sick at the aid post and he was left with no close relative to perform household tasks. Social obligations and other generally non-productive activities account for 33 per cent of the total time that Marjorie spends on her activities, compared with 20 per cent for the village as a whole, and the mean length of her working week was less than 42 hours compared with the village average of almost 49 hours. Apart from household tasks, the most important productive activity is harvesting of subsistence crops. Over half of this time is spent on taro and the rest on sweet potato, yams and minor crops. The other aspects of cultivation and clearing bring the total time on subsistence gardening to almost 11 hours a week; only taro receives any maintenance. Fishing - usually with a small net, in contrast with the spears used by men - is the most time-consuming of the other food-producing activities, although she also assists her husband in sago-making. Other subsistence activities are restricted almost entirely to making string bags and pandanus-leaf sleeping-mats.

[562] [462]

The average weekly time Marjorie devoted to cash cropping equals that of the entrepreneur. She helped her husband establish a coffee garden and worked with the other villagers making copra. However, the time she spends in cash cropping is less than that spent in other activities related to external agencies. Of such activities, over one-third is on council work and almost one-third on meetings of the Hohota Women's Club; the rest is mostly on church services, since she often goes to the Ijika services held by close kin of hers. In total, these activities and cash cropping account for 14 per cent of her activity time.

[461]

Although Marjorie invests sufficient time to maintain the household's gardens, it seems clear from the frequency of her contacts with her consanguineal kin in other villages and from the comparatively low proportion of her time devoted to productive labour that she is less oriented towards her village of residence than are the other wives, all but one of whom also originate from other villages.

Paulus. The younger of Manoko's two sons, Paulus is aged 25, is married to the sister of the leading man's wife and has two sons (a third having died a few months before the survey began). He was educated only to standard I. Subsequently two and a half years were spent working as a surveyor's assistant in Port Moresby and some months as a labourer (and briefly as a foreman) on the roads near the village. He has no cash crop

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

121 The reasoning is nearly syllogistic...close kin tend to share, to enter into generalised exchanges, and distant and non-kin to deal in equivalents or in guile.

He does, nevertheless, recognise three aspects of kinship distance, namely, genealogical, segmentary and spatial (or residential) distance. Of the third, he writes: 'It is not only the kinship organises communities, but communities kinship, so that a spatial, co-residential term affects the measure of kinship distance and this the mode of exchange.' (1965:150)

Among the Mt Lamington Orokaiva exchange networks can best be understood in terms of associated kinship-residential groupings, on account of the physical separation of clans into several branches and the frequent juxtaposition of two or more such branches in a single village. Yet, even with this proviso, it is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred (if any important relations exist at all in the context of Murdoch's model) for, not only is the proportion of total production entering into the exchange system small in Sivepe, but the dimensions of the system and the number of persons with which an individual effects significant transactions are also small.

437 The following examination of the major exchange relationships of six selected individuals[1] (see Table 10:17) reveals that many are founded on a specific set of considerations, involving degrees of economic inter-dependence, rather than on general obligations to a wide range of kindred. The conclusions reached are, to a degree, determined by certain assumptions inherent in the mode of analysis. [513] Firstly, the exchanges of individual members of a household are considered instead of those of the household as a whole although a [562] man and his wife, for instance, clearly conduct exchanges on each other's behalf. Secondly, women are treated as members of their spouse's lineage group since this is the kinship context in which they are considered to be the most effective transacting agents. In spite of such limitations the fact does emerge that exchange networks are not readily explicable in terms of formal models of kinship or of exchange based on such models.

Linton. Although only adopted into Timuma clan, Linton behaves as a full member of it and retains few links with his true agnates, many of whom reside less than one hour's walk from Sivepe. The total volume of transactions effected by him exceeds that of the other selected individuals in all but two aspects: the disposal of subsistence produce and the acquisition of labour services in subsistence activities. In spite of the fact that he

1 The same six whose activity patterns are considered above. See pp.117-27.

437 Palminus was able, like Linton, to establish an exchange relationship with a man employed in Popondetta, in this case a distant relative of his wife, working as a carpenter. On his occasional visits he took him food, receiving in return cash and storebought goods. Apart from this case, however, Palminus' transactions are almost entirely restricted to [431] subsistence goods and services - food and labour in harvesting yams. Acquisitions amount [765] to 62 per cent of all his subsistence produce transactions (compared with 84 per cent in Linton's case), the greater proportion reflecting events following the death of one of Palminus' sons early in the survey when gifts of food were received from a wide range of kin during the week that he and his wife remained in their house.

[562] Gorukari. Like most women Gorukari transacts little apart from subsistence produce and, in this, the substantial excess of disposals over acquisitions reflects her responsibility for distributing plates of cooked food. Outside her own family her immediate responsibilities are to her husband's ageing parents and their remaining dependent children who live next door. While the two families frequently prepare their meals at the same hearth the periodic sickness of the parents also involves Gorukari in providing food for them. In addition she temporarily accommodated her husband's father's sister, a widow, and her [431] children. This family appears to have had some difficulty in achieving subsistence[1] and Gorukari frequently provided them with food. These gifts were acknowledged following the widow's remarriage and departure from Sivepe.

Elsewhere within the village Gorukari exchanges produce primarily with women from her own age group, where the bond is one of common interest rather than of kinship. Outside the village she maintains contact with two of her natal kin - her mother, who lives about one hour's walk away, and her sister, married to a medical orderly at Saiho hospital. These periodic visits also enable Gorukari to take food to her husband's father's sister who is married into her mother's village.

Olga. Olga's exchanges follow a similar pattern to those of Gorukari. They involve, almost exclusively, subsistence produce, disposals of which account for 71 per cent of all transactions. Within the spouse's lineage frequent exchanges are effected with her son and his wife whose house is adjacent. Elsewhere major exchange relationships are maintained

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1 See p.94.

437 operations in the cash sector are conducted, in part at least, according to traditional attitudes.

437 476 Table 11:16 gives details of labour assistance received from and given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

438 462 562 The breakdown of the totals for the whole survey according to sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1] and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

TEXT CONTINUED ON PAGE 265

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 11:17

Inonda: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce:			(lbs)			(lbs)
Taro	40	60	5,494	6	94	6,307
Sweet potato	31	69	1,419	17	83	1,235
Yam	36	64	406	19	81	457
Banana	42	58	1,098	34	66	553
Pumpkin	21	79	521	16	84	410
'Soup'	70	30	261	3	97	266
Coconut	48	52	326	56	44	431
Sugar-cane	49	51	546	33	67	662
Areca	42	58	93	36	64	39
Other garden produce	44	56	1,566	26	74	1,089
Fish	49	51	174	71	29	211
Wallaby	81	19	318	85	15	276
Pig	77	23	1,482	85	15	1,923
Other produce of hunting, fishing and foraging	55	45	157	46	54	179
Other weight items	-	100	160	48	52	48
Labour services:			(hrs)			(hrs)
Cash	98	2	52.8	67	33	53.1
Subsistence	88	12	578.4	78	22	386.8
Storebought goods:			($)			($)
Rice	58	42	56.74	33	67	12.94
Tinned fish	67	33	29.98	54	46	6.16
Tinned meat	66	34	17.00	54	46	1.30
Bread	82	18	17.50	89	11	3.08
Sugar	75	25	17.84	100	-	1.62
Salt	48	52	1.24	-	100	0.12
Trade tobacco	71	29	21.24	45	55	2.26
Other foodstuffs and cigarettes	82	18	69.34	67	33	5.80
Clothing	60	40	77.04	55	45	6.70
Cooking utensils	21	79	9.76	-	-	-
Other storebought goods	88	12	42.60	14	86	0.78
Cash	88	12	337.36	90	10	340.70

	Men	Women	Total
Number of days surveyed	1,443	1,339	2,782
Percentage of total	52	48	100

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

438 462 greater sharing of refreshments by men when working or travelling together. Men are most prominent, however, in transactions of the produce of hunting and fishing, particularly wallaby, pig and fish. They engage in these activities more than women and a hunter will often give a whole pig or wallaby to a male relative, very rarely to a woman. The only instances recorded of gifts of carcasses to women were two young pigs caught in traps and a wallaby found dead (perhaps killed by a dog) on the roadway. As a rule, women are concerned in the distribution of meat only after an animal has been butchered. Women receive half the fish distributed, since young men returning from fishing expeditions almost invariably give part of the catch to close female relatives.

562 As men both earn and dispose of most of the money, it is to be expected that they acquire most of the storebought items - cooking utensils are the only significant exception, due to a single large purchase by one woman. Women are free to keep and dispose as they wish of cash acquired from gifts or in marketing (although they [439] acquire less than men in this way) and husbands also give their wives sums of money as presents or for specific purchases. Women account for a slightly larger share of disposals of some storebought goods, especially rice, reflecting the fact that in Inonda rice is becoming an accepted subsidiary food and may be included in the [556] routine daily exchanges of cooked food. This is true of flour also in the dry season. Rice is commonly prepared for visitors from other villages, perhaps to stress the wealth and 'modernity' of the Inonda people. As regards cash itself, most is handled by men.

437 462 562 Services are usually said to be given to household heads, so it is natural that most labour services are acquired by men. Those acquired expressly by women are largely in the form of garden and household tasks and house construction. Almost all the labour services relating to the cash sector are in cultivation of cash crops and, since women do not own commercial trees, are received by men, although the former do assist in their establishment and maintenance. In the subsistence sector, men own and control the exploitation of sago-palms and as sago-making accounts for 46 per cent of all assistance received in subsistence tasks, men are again dominant. They also provide most of the assistance in sago-making, and therefore account for the larger part of disposals of subsistence services.

The relationships between exchange and the socio-economic category of transacting partners

438 For each transaction, the name of the donor or recipient was recorded, together with his place of residence and occupational category - that is, whether he was a villager, a regular wage earner within the District, an ex-serviceman settler, or a wage earner resident outside the District. The categories are mutually

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution.

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves.

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words.

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films.

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows.

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m.

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Men dancing at the feast

574 when three young single women joined in, though each danced sepa-
562 rately and without appearing to take any notice of the men or to
595 be noticed by them. Only three mixed couples were seen dancing during the whole evening, the partners in each case being real or classificatory siblings. They danced ballroom style, which the girls had seen when away at work as nurses and domestics. On some occasions two men danced together, but for the most part each man danced individually, following his own style and apparently oblivious to those around him. Traditionally, married women do not dance, though single women dance in supporting roles.

574 It was clear that while music and dancing were based largely on
177 a very limited conception of Polynesian patterns, dress and other behaviour was based on European models - even to the extent of several of the most prominent citizens handing out Rothman's king size filter cigarettes! Though traditional prohibitions (such as those against married women dancing) prevailed, there seemed to be a conscious effort not to behave as an Orokaiva, and some of the local people who did not participate explained that it was because they did not know how to dance in the modern style. Over all the men engaged in nontraditional activity much more than the women did.

574 Shortly after daybreak a church service was held, breakfast was served, and the party was over. The remains of the food was distributed to those relatives who had contributed most food and

three categories in relation to particular clans, i.e. a man may be a primary member of an Inonda sub-clan and a secondary member of his mother's clan; or a married woman may be a contingent member of her father's clan, a secondary member of her mother's clan and a permissive member of her husband's clan. Each category may be sub-divided according to sex, for the rights of males in each category are in some respects different from those of females. Hunting rights, for example, are never exercised by women though occasionally a husband hunts on the land of his wife's sub-clan. Likewise food gardens are seldom planted by a married woman on land in which her lineage has proprietary rights; and men quite often harvest tree crops from their mothers' lands, though women seldom do so.

The people of the Andiriha and Jego'undi sub-clans of Inonda recognize all other members of their respective clans, wherever they reside, as kinsmen. Although distant kinsmen visit for feasts and ceremonial occasions, only those persons who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

The status of adoptees varies according to individual circumstances as the following examples show. About fifty years ago the Andiriha (who were then living at Sambogo) attacked a village of a neighbouring but unrelated Managalas tribe. Some of the inhabitants were killed and others fled. Two small boys who were captured were adopted by an Andiriha

851 marriage is in force; he is, in addition, considered to be the genitor of all her male offspring though not her female offspring.

842 It is obvious that the Orokaiva know the 'basic fact' that when a man and woman have sexual intercourse, the birth of a child often follows and that the latter, in common experience, does not occur unless preceded by the former. The recognition of this fact does not impel them to adopt a genuine 'theory of physiological paternity'; their basic theory remains that of spirit entry which is deemed essential to the conception of all children, whether male or female. The notion 842 of physiological paternity is introduced only 562 to solve a somewhat different problem: why the sexes differ in physiology and legal status. The answer runs as follows: the male is believed to have a special quality (*ivo*), not shared by the female. This is a strength or power enabling the male to play his distinctive roles and it is transmitted by a man to his son in the 'male blood' which enters the mother in intercourse. This is the *ivo* of the lineage. As women do not receive this type of blood, they cannot carry on the lineage: filiation is patrilateral. Having only the 'weaker' blood of their mothers, they become women.

842 Leach's essay on 'virgin birth' does a good deal to illuminate the Orokaiva case. The Orokaiva, like Christians and the people of ancient Mediterranean societies, believe that some births are the consequence of sexual congress whereas others are not. Both cultures have a further theory according to which some children may be conceived by a 'woman sleeping alone'. Furthermore, both systems explain conception in these circumstances by a spirit entering a woman and fertilising her.

614 Now, as I understand Leach, in all quoted 182 cases of parthenogenesis, a great social distance separates a father of egregious status from a mother and maternal lineage of much lower status. In some of the quoted cases, the offspring inherits the father's high status while in others, the offspring remains (as in the Trobriands) in the lower 'stratum' of the mother. The somewhat unusual Orokaiva case fits this pattern quite well. Woman is not destined to stay in the clan but to be abducted or to elope and settle elsewhere, but her children will always covet the clan's land and her brother who is expected to love her is

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
● [562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepe: out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to Jegase and Timumu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepe today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepe is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepe were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[179] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepe into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

CHAPTER VIII: Factionalism

121 In the preceding chapters I have invoked a number of principles
621 of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), acculturational categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 In Sivepe we found political membership groups (clans) which
665 showed marked differences in certain acculturational indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepe, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepe, though perhaps it was easier to challenge in Inonda, where there is a "big man" as
665 leader. Another classification, namely between male and female,
562 should also perhaps be briefly considered as, under the impact of the women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepe, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

121 To what extent can one speak, in these villages, of factionalism? This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt
[578] to take sides along this predictable lines of division. Among the Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepe, were hardly ever repeated from one occasion to the next. Factionalism in Sivepe was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
(614) reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
(154) the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
(562) hostile and resistant to whites. Women were often seen ac-
(186) companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
(628) while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
(728) precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,"
241 but more often it was "simply the lax method of horticulture
(518) which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow
931 zone, and people may have to scatter out to live on wild
165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
(449) to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

In this essay, I shall present data on the friendship universe and show that Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

Between the districts where the data were collected, there are slight differences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 tended to play down such a possibility. While the concept of exploitation is perhaps more directly relevant to Marxist theory than alienation, it has certain drawbacks that are now widely recognized. Where use-values are predominant it is common practice to set up not so much a division of labour (Vernant has rightly argued one cannot call it that) but rather an allocation of tasks to persons or social categories who are thought to have special competence for them. Thus, as the most common example, certain tasks are allocated on the basis of criteria like age and sex. Now, this is not in itself exploitation though obviously it may well lead to exploitation. We therefore need a criterion, other than that of the task allocation itself, to determine whether exploitation in fact occurs.

462 I shall press this point by citing one counter-instance. Among the Orokaiva only women are considered competent to harvest.
562 Men never do it and claim that, if they did, the taro supply would be exhausted too soon. As an exception, they do harvest taro for feasts, and this exception only goes to confirm that they would be far too prodigal to act as daily harvesters. Is this just a story to exploit women? When crops are being marketed, the rule among Orokaiva is that the men carry the coffee and are paid for the coffee, but taro and other subsistence vegetables, when taken to market, are taken by women who also retain the money. Their right to the produce is maintained not only for the daily food supply but also when there is money to be earned. Their right to the product of their labour does not seem to be questioned. Thus, by the criteria we have been using, Orokaiva women are not an alienated labour force and it will be seen that *alienation* is more convenient in an operational sense than the concept of exploitation, which may be too broad.

171 While studies of alienation in Melanesia are rare, it is possible to give some indication of the patterns. M. Panoff, in his study of Maenge suicides (1970), did not question the generally accepted model of Melanesian society as governed by certain strong exchange and 'equivalence' principles. He points out, however, that there may well be a minority of marginal individuals who are somehow too weakly established to be within the range of those principles: they may at times press their rightful claims, but without success. Panoff shows that the male suicides among the Maenge occur as a general rule against this background of ruthless and unlimited exploitation. In fact it is only suicide that sets a limit to exploitation in such cases. The proportion of people Panoff places in that category appears to be of the order

The social setting

(a) Population and settlement (see Table 1:2 and Map 2)

The indigenous population of the sub-district totals some 36,500 people of whom 26,500 are Orokaiva and occupy the central lowland area. There are, in addition, an estimated 1,100 indigenes from other parts of Papua-New Guinea, either employed by the Administration or European planters (as contract labour) or operating smallholdings under a land settlement scheme. The European population of 495 persons falls into five major categories: Administration, Anglican mission, army, commercial and plantation. Most live in the district headquarters of Popondetta (population 600) and, like the indigenes from other districts, apart from indigenous Orokaiva settlement.

Table 1:2

Popondetta sub-district: population in ethnic groups by location and occupation (1965 estimates)

	Ethnic group		
	Indigenous*	Asiatic	European
Location			
Popondetta township	300	13	300
Rest of sub-district	36,161**	0	182
Total	36,461	13	482
Occupation* **			
Administration	n.a.†	0	160
Anglican mission	"	0	79
Army (PWD)	"	0	68
Commerce	"	13	60
Plantation/settlement work	261	0	115
Plantation labour	1,813††	0	0
Urban wage labour force	300	0	0
Sub-total	2,374	13	482
Subsistence farmers	34,087	0	0
Total	36,461	13	482

* Includes Orokaiva and other indigenes from Popondetta and other sub-districts.

** 26,500 Orokaiva, 9,000 other local indigenes and 661 indigenes from other sub-districts.

*** Includes dependants.

† Not available

†† 600 from other sub-districts.

Source: DDA, Popondetta.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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The pattern of exchanges in relation to the sex and age of sample members

The nature of an individual's participation in the exchange system is directly related to his access to the appropriate goods and services. The criteria of sex and age have already been shown to have an important bearing on roles assumed in the productive system and, since the various goods and services can frequently be associated with specific activities, patterns of exchange are also influenced in this manner.

(i) By sex (see Table 10:13). Since most of the staple food, taro, circulates in a prepared form at the time of the evening meal, its distribution is largely the women's responsibility; so is breadfruit, which serves as a major substitute for taro during the dry season. The men consider their informal sharing of areca and lime to be of a similar nature and function in the exchange system. Thus, in the disposal of abundant subsistence goods, the pattern accords to that of the division of labour associated with them although, since most are in the form of individual exchanges, acquisitions are shared by both sexes. However, the exchange of 'scarce' goods is more strictly the concern of the men. This applies particularly to wild game, pig and to sago. Hunting is primarily a male pursuit, while the nature of the preceding negotiations and the scale and significance of the subsequent distributions of pigmeat and sago dictate that they be handled by the household heads.

The exchange of labour services can also be considered in terms of activity patterns, for subsistence activities featuring large work groups, and therefore requiring extra-household assistance, are male-dominated. Hence it is men who most commonly render assistance. Even in the harvesting of yams, where women do a lot of the work, the activity is organised by the male owner of the garden and therefore the service is offered to him.

The management of cash crops, particularly their marketing, is the men's responsibility, and any assistance in the processing of coffee is directed to them, although over half of it is actually provided by women. The pulping of coffee by hand, though labour intensive and a task of some urgency, is not nearly so arduous as the other major activities associated with the exchange of labour services, and this is the reason for soliciting assistance from women.

Cash transactions are primarily the responsibility of the men but the circulation of storebought goods is largely determined by the nature of their utility within the subsistence economy and the circumstances of their exchange. Thus tools and equipment are handled almost exclusively by men whereas prepared food, personal and household goods are distributed largely by women, although both sexes are involved in their acquisition (i.e. purchasing, receiving of parcels, etc.).

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Table 10:13

Sivepe: exchange of goods and services, by sex
(percentage distribution)

Category	Acquisition			Disposal		
	Men	Women	Total	Men	Women	Total
Subsistence produce: total deviant items:*	47	53	100	35	65	100
Taro	42	58	100	18	82	100
'Soup'	57	43	100	7	93	100
Sago	60	40	100	90	10	100
Breadfruit	28	72	100	10	90	100
Areca, lime, etc.	52	48	100	71	29	100
Pig (domestic)	95	5	100	94	6	100
Produce of hunting	79	21	100	72	28	100
Cash crops: total	-	-		100	-	100
Labour services: total of which:	88	12	100	66	34	100
Cash	92	8	100	46	54	100
Subsistence	88	12	100	70	30	100
Storebought goods: total of which:	45	55	100	40	60	100
Foodstuffs and stimulants	58	42	100	37	63	100
Personal	31	69	100	20	80	100
Household	52	48	100	-	100	100
Tools and equipment	90	10	100	83	17	100
Cash	73	27	100	70	30	100

	Men	Women	Total
Number of days surveyed	2,323	2,418	4,741
Percentage of total	49	51	100

* Items deviating significantly from the total for the category.

In effect, apart from transactions associated specifically with cash (and therefore including the marketing of cash crops), exchange patterns manifest a close association with the basic features of the organisation of production in relation to the sexes.

561 (ii) By age. Table 10:14 outlines the percentage distribution of goods and services between five age categories and it also compares these distributions with the relative position of each category within the sample in terms of man-days observed. It demonstrates that, in general, the flow of goods and services is regulated by individuals within the 25 to 44 years age bracket, who are the most active within the sample and therefore, presumably,

[TEXT CONTINUED ON PAGE 212]

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

177 to be kept under control'. Europeans now living in the Northern
563 District tend to make such wide generalizations. They also tend to allot unique stereotypes to subgroups such as villages or tribes.

The process appears to be one of social spacing in a psychological field thus allowing relationship between broad groups to be defined and fixed. Such a process tends to cause less anxiety in social interaction. Instead of the necessity to formulate a new social relationship with each person, relationships are already defined and the task is simply to find which relationship is applicable. The tribal group is very convenient for this purpose. There exists a strong body of opinion concerning the Orokaiva and his nature, habits, ability and personality, though very little of this has been substantiated by scientific enquiry.

History of psychological testing in Papua-New Guinea

114 The first report of psychological research in Papua-New Guinea is that of the Cambridge Anthropological Expedition to Torres Strait Islands in 1898. The expedition, under A.C. Haddon, consisted of Sidney H. Ray (linguistics), Anthony Wilkins (archaeology and anthropology), C.S. Seligman (native medicine and disease) and three young psychologists each of whom was to achieve prominence: W.H.R. Rivers (who became Chairman of the Medical Section of the British Psychological Society), C.S. Myers (who became Director of the National Institute of Industrial Psychology) and William McDougall (later Professor of Psychology at Harvard University then Duke University). Volumes of reports were published intermittently from 1901 to 1935. The most relevant psychological material is found in the Introduction to Vol.I and in Vol.II, Parts I and II.

Rivers (1901) described the subjects investigated as:

> visual acuity and sensibility to light differences, colour vision, including testing for colour blindness, colour nomenclature, the thresholds for different colours, after-images, contrast and the colour vision of the peripheral retina; binocular vision, line dividing; visual illusions, some of which were investigated quantitatively; acuity and range of hearing; discrimination of tone-differences; rhythm; smell and taste; tactile acuity and localisation; sensibility to pain; temperature spots; discrimination of weight and illusions of weight; reaction time and choice time, estimation of intervals of time; memory; mental fatigue and practice; muscular power and motor accuracy; drawing and writing; blood pressure changes under various conditions etc.

177 the children are principally concerned while some older people are still averse to contacts with medical personnel.

Section 7: Contacts With Chinese

563 439 At the time of the eruption there were, as far as I know, no Chinese in the Northern District. By 1966, five Chinese families had settled in Popondetta, all of them as traders. They had migrated from Rabaul and Lae, where they have trade connections. In the two years or so since their arrival, they developed considerable trade connections among the Papuans. I found that both at Sivepe and Inonda, people preferred to deal at the Chinese shops rather than at the two large established European concerns.

The main reason I was given for this preference was that the Chinese shops offered goods at lower prices. It was certainly true that these shops had a far greater range of low-priced clothing of the type Papuans like to buy. There were, however, other factors. When I had occasion to buy low-priced clothing of the favoured type, I found that the two European stores actually had some rather good stock and that the price was not actually higher. I even found that some lines were more expensive in some of the Chinese shops. This applied particularly to tinned food which the Papuans also bought.

The two European stores were certainly full of goods well beyond the means of the Papuans; when they traded there, they would have to be very careful to pick items of the right sort of price. The main trade of the European shops was with Europeans who put through relatively large orders usually on credit. The Papuan who went there with a few shillings to spend could not help but feel his economic inferiority. In one of the shops, I occasionally saw cartoons displayed which had a racist bias. In the Chinese stores, salesmen were exclusively Papuan and by no means gave preferential treatment to Europeans who went shopping there. Papuans felt much more at ease there. Furthermore, a Papuan who had a regular income or who was known to the owner and grew coffee, could get credit at the Chinese shops.

[245] [494] One of the Chinese stores introduced several new features in his business. He bought coffee from Orokaiva growers which he sent over to Lae for processing. His price was a little lower than that of the coffee cooperative, but people sold coffee to him nevertheless. Sometimes, the reason was that the cooperative bought only once a month during a scheduled visit to each district, and people might wish to sell at other times. In other cases, the reason was that only members of the cooperative could sell to the cooperative and many small growers were not members (the entrance fee had risen to $16 by 1966). Furthermore, the coffee could be used to pay debts incurred with the Chinese store.

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepe. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata
[554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepe village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepe, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepe is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is
177 more often Popondetta. Another difference is that whereas Sivepe,
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Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
that must be carefully distinguished: attitudes to individual government
servants, to the power structure and to the values represented by the
● 563 government. As for attitudes to individual public servants, I have
no evidence for any change in attitudes. In a subtle way every white
man with whom Orokaiva come into contact is tested according to various
criteria: fairness, courtesy, willingness to reciprocate gifts and
services, willingness to eat with the people (a rare phenomenon,
this) and above all, his behaviour in the constant battle of wits
and inner strength in which Orokaiva delight. A man such as Mr. Kaad
who was a good man by all these tests, was remembered with much affection;
others, though excellent by the criteria of the Australian public
service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
177 a rather harsh history of earlier contacts, beginning with the murderous
régime of Monckton and culminating in the 1940's in the Japanese
conquest, the Allied re-conquest and the public execution of a small
band of Orokaiva who had sided with the Japanese. The welfare
orientation of the Australian government was perhaps never massively
demonstrated before the eruption of Mount Lamington. At the present
time this welfare orientation is well understood but the Orokaiva fear
the Australian power to compel their compliance. They use what
resources they have to keep this power within limits. They have found
that it is usually fruitless to disobey Australian commands openly,
but power can often be made ineffective if orders are misunderstood
or forgotten or evaded. Furthermore, it is a general rule among
Orokaiva to withhold information systematically from the taupa. It
took me some months to learn that even the simplest information I
had about the Orokaiva was often unknown to Europeans, not because
they were not interested but because nobody would tell them. On a
few occasions when an official asked me a question I would say that
any of his "driver-boys" (that was how they referred to their drivers)
could answer it and the official would answer: "Nobody will tell me.
They all say they don't know." This is indeed a potent weapon against
colonial administrators.

657 It would be wrong to assume that this attitude is directed
against Europeans in general, because there was great variation in
177 the treatment of individuals, and also, it is not directed against
the values Australians are trying to introduce. The avoidance of
communication is largely, I think, a device in the power struggle
between the colonial government and its subjects. The Orokaiva do
what they can to avoid being dominated. In this context, the setting
[623] up of local government councils was a great step forwards. The councillors
do not meet with the same communication bar because the people know
that they can control them through the electoral machinery. Hence it

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which [591] is hardly more than four miles away. Both the Soroputa men had married [582] Sivepe women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 The traditional pattern was for a man to marry a woman from 582 a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district 169 and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 Of the ten adult women living at Inonda, four came from the 628 Sangara tribe, one from Kendata in the Sasembata district and the others [582] from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[773] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

already pointed out the usefulness to a village of such men of multiple loyalties because they were the natural ambassadors if something needed to be negotiated between the two groups.

It will be seen that the effect of the eruption on the homogeneity of Sivepe has been minimal: one stranger came into the community through marriage. The ideology engendered by the resettlement villages did lead to some accretions in Sivepe population over the last decade before my visit, but these accretions (from Binduta and Garombi) would hardly make the population heterogeneous. These migrations were over a very short distance, short enough to allow migrants to maintain gardens on their own land, and were facilitated by existing agnatic and cognatic links.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
Hohorita were married without one. At the present time, bridewealth
[464] is reinstated, and young men go to neighbouring plantations, which are
plentiful--or else further abroad--to earn them. While many husbands
[595] worked outside Hohorita, most of them were able to return home at
weekends. Polygamy was pronounced before the eruption, but it seems
that the polygamists became victims of the eruption and polygamy no
longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
above that of Sivepe, the reasons are: better facilities during the
years 1945-1951, loss of many members of the older age groups in the
eruption, special efforts made by Bishop Hand at Irihambo to draw
Sangara into mission teaching. This higher standard is reflected in
the statistics of persons who at one time or another have been in
skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the
average income from coffee in Hohorita is certainly far in excess of
that in Sivepe (about $100 per annum).

871 Hohorita does feel that it is held back by the present educational
provisions which are little better than those in Inonda and much
inferior to those at Sasembata. (At Hohorita, there is no schooling
beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
people compare the school unfavourably with the government school at
the Sangara resettlement block which offers Standard 6, and which,
furthermore, has more highly qualified teachers on the staff. My
own impression was that the head teacher at Hohorita is a very good
man; some of the criticism of him is no doubt due to spite, for he is
of local origin. Still, the general criticism of facilities at
Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been
frequent. The explanation may be found in the pressure, after the
disaster, to find mates when most preferred potential marriage partners
had died in the eruption. This breaking down of the endogamous emphasis
after wars and disasters is, as I pointed out earlier, traditional
among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly
582 after the eruption. According to this arrangement women who married
outside Sangara, would be allowed the same land rights as though
they had been sons. This was done in an effort, so I was told, to add ens
to the depleted Sangara population. Men would thus be encouraged to
settle on Sangara land rather than take their Sangara wives home with
them. Two men from the Sasembata district are now living in Hohorita
under this arrangement. They keep up normal exchange relations with
their home district, e.g., I know one of them lent hambo for the kere

A [See Cat. 116, p. 228--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

attempts are being made to expand and diversify cash cropping by planting more coffee and erecting a communal copra-drier in Inonda and establishing a communal garden in Sivepe. However, in all of them, serious problems have arisen or the venture has actually been abandoned. These facts point to a certain lack of direction and perception of the most appropriate techniques in the development of commercial agriculture.

(b) The relationship of subsistence to the external sector and the availability of surplus labour

Perhaps the most significant general conclusion to emerge from this survey of activity patterns is that the Orokaiva economy continues to be essentially tradition-oriented. Such monetary activities as exist seem to be additional to, and do not replace, subsistence activities. Although the two villages have, since contact, been incorporated into a wider system, individual participation in it remains essentially passive. There is now a real need for money, and for the products that money can buy, and commercial production within the village is perceived as one way of satisfying these needs. Because of the people's familiarity with cash cropping, and of the under-utilisation of available labour, it is not easy to see why it should not have been more extensively adopted.

There is plenty of evidence that the villages continue to be tradition-oriented. In particular, there is little suggestion of 'a reduction in the acreage under subsistence crops, a narrowing of the normal range of good crops and changes in their relative importance' or 'of a reappraisal of the agricultural value of different types of land and soil' or of 'the movement of whole villages to new sites...the movement of individuals from villages which are poorly located for commercial farming to those which are more favourably situated...[and] the departure of individuals or nuclear families from the village to become independent farmers' as have been indicated by Ward (1964:487-93) in the case of Fiji. No distinct socio-economic groups have emerged at the village level. By contrast, in a recent study of village agriculture in Aitutaki, Cook Islands, three economic groupings are identified - the gardeners, gardener-employees (those with part-time jobs) and employee-gardeners (holding full-time positions) - this breakdown in the homogeneity of the communities being considered as one measure of the degree of commercialisation of the economy (Johnston 1967:36-8 and 91-3). Finally, there is as yet no evidence of individual specialisation where 'The planter restricts and narrows his activities in two directions: he concentrates upon agriculture to the exclusion of non-agricultural activities and on cash crops to the exclusion of non-cash crops' (Johnston 1967:60).

Rimoldi, in investigating the recent history of settlement among the Mt Lamington Orokaiva (1966:39-47 and 65-70), distinguishes

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

IV

The ethnography is divided into three parts. In the first part, after providing a brief general sketch of Orokaiva culture, I shall examine the 'starting mechanisms' of Orokaiva exchange cycles, both in traditional institutions (Ch. III) and in institutions developed since the British-Australian conquest (Ch. IV). The second part of the study is concerned chiefly with objects of mediation: land, taro, pigs, minor foods and ornaments (Chs. V–IX). In the third part the focus shifts to the relations between exchange partners mediated by the prestations analysed in the preceding chapters.

Although my presentation of Orokaiva social structure in this part of the work is not intended to be controversial, the focus differs from that of earlier ethnographies and here and there earlier findings had to be questioned in the light of fresh evidence. Orokaiva society contains several types of groupings (clan, local clan group, lineage, plant emblem group) whose members, according to informants, are recruited exclusively on the basis of agnatic descent. Earlier investigators have emphasised these patrilineal characteristics by equating the lineage and clan emblem group, proclaiming them both to be segments of local clan groups, and by treating the local clan group as something like a segment of a clan. My own analysis, however, will be concerned more with clan fusions and fissions, with irregular recruitment within the plant emblem group, and with the lack of evidence for agnatic connection between lineages and local clan groups. My evidence shows that the non-agnates recruited into these putatively agnatic groupings are mostly uterine kin. But above all I shall try to establish that these departures from the supposed agnatic norms are not cases of irregularity or deviance, but an integral part of the Orokaiva kinship system. I shall suggest that normally clans are not intrinsically agnatic but rather that they arose out of alliances between smaller groups whose original link was affinal. The effect of this argument is to show the narrow limits of range and scope within which Orokaiva patrilineal corporations operate, and thus to emphasise the importance of the exchange system as a principle of social structure.

As soon as we extend kinship analysis beyond the conjugal family, we observe that mediation is carried on not only through non-social objects used as gifts or prestations, but also through social objects used as intermediaries. Thus, in the relation between sister's son and mother's brother there is an intermediary who is mother of one of the partners and sister of the other. Similarly, the relation between two brothers-in-law is mediated by a woman who is wife of one and sister of the other. Men also often act as mediators between exchange partners when these are not linked by kinship, or when the exchange partners are female.

The principles of exchange are the same whether the objects of meditation be social or non-social. In both cases there are two partners, *ego* and *alter*, who establish or maintain a social relationship. The object of mediation, whether social or non-social, is so chosen that both *ego* and *alter* are – or become – closely identified with it. If *ego* and *alter* are male non-agnatic kinsmen, the mediator must be a woman· if they are female non-agnatic kinsmen, the mediator must be a man. In either case, the concept of an object of mediation implies that at the beginning of the transaction *ego* had some exclusive claim

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

upon the man or woman who is being 'transferred', but as the result of the transaction this claims passes to *alter*.

The most familiar example of such a transfer is that of a woman who is 'given' by her brother to her prospective husband. When Lévi-Strauss developed the exchange or 'alliance' theory of social structure, he mainly discussed this type of transaction, whereby a social relationship between two male partners is created by the transfer of a woman from the control of one to the other. It is clear, however, that for every man who marries, a new relationship is also created between women who become sisters-in-law. In a very significant sense, the wife has taken the man from the sister. The Orokaiva acknowledge this aspect in two ways: by the gift of a pig made by the wife to the sister, and by the term of address *bi* (= penis) used between sisters-in-law.

We may thus see social structure as the product of a web of mediation. The usefulness of such a concept depends very much on the extent to which these intermediaries are institutionally involved in dealings between partners. Among the Orokaiva, their roles as intermediaries in exchanges between men are well articulated. As wives, as sisters and as mothers they link the very small patrilineal kinship groups into social units of a viable size. The system of marriage is a rather involved one, containing elements of restricted as well as of complex generalised exchange. Once this system of marriage is fully understood (Ch. X), the basic workings of Orokaiva society stand fairly clearly revealed. The study of Orokaiva exchange would not be adequate, however, without a brief consideration of the independent friendship network and the system of ranking, especially as it has affected recent Orokaiva-Australian relations (Ch. XI).

We thus return, though with a slightly more specific methodology, to Mauss' concept of exchange as a 'total phenomenon', in the sense that we posit the interrelations of notions of exchange occurring at any level of conceptualisation, social and non-social. It is in the very pervasiveness of such notions throughout the culture that we find evidence for its dominance in Orokaiva thought and institutions and for its power to mould social life.

REFERENCES

1 I refer especially to the discussion of the 'starting mechanism' of exchange in Gouldner 1960 and to Blau's (1964) criticism of Gouldner. My own view is that the approaches of these two authors are complementary.

2 Cunnison's translation (1954) suppresses in many passages Mauss' concern with economic and psychological factors. Compare Mauss: 'Quelle est la règle de droit *et d'intéret* qui, dans les sociétés de type arriéré ou archaïque, fait que le présent reçu est obligatoirement rendu? ' (1966:148) and: 'In primitive or archaic types of society, what is the principle whereby the gift received has to be repaid? ' (Cunnison 1954:1). Compare also: 'ce type de droit et d'économie' (Mauss 153; Cunnison 5); omission by Cunnison of the last paragraph of Mauss 173; 'ces concepts de droit et d'économie (Mauss 267; Cunnison 70); 'en règles de droit, en mythes, en valeurs et en prix' (Mauss 275, Cunnison 77), etc. Recent criticism of Mauss by economic anthropologists sometimes reads as though it is based on translation rather than original.

3 For Lévi-Strauss' discussion of the notion of mediation see *La Pensée Sauvage*, Ch. VIII and *passim*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

581 account, the meeting ruled that the cause of the marriage breakdown was the
586 husband's refusal to allow her to enter his garden. The attempted seduction, the
627 adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

578 Another such case was that of a man who took sides in a quarrel between his
837 brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's
571 side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him.

[583] And why would nobody help him? Well, brideprice had been paid for his first
[581] wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

829 In both instances a basic exchange cycle had been broken and that was
431 thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and
436 deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

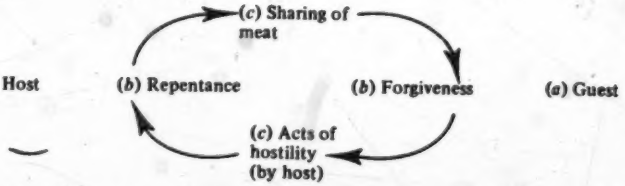
Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 no quarrels occur (Orokaiva do not seriously envisage such a relationship), but
571 one where quarrels are resolved before they have gone too far. The Orokaiva would feel more affinity with the sociology of Simmell and Blau than with that of Weber and Parsons. A bad relationship is one where the cycle *reconciliation – quarrel – reconciliation* is interrupted, and the relationship is broken off, or the quarrel intensified until one of the parties resorts to sorcery.

829 We may express this view of social relations diagrammatically in the following
571 simple model, where (*a*) stands for exchange partners, (*b*) for objects of exchange, and (*c*) for mediating elements.

574 MODEL 1



This model, first of all, contains three binary oppositions. The exchange partners are represented as opposed to one another. This corresponds to empirical reality because at any feast the persons present always belong in one of these two categories. Secondly, there are two objects of exchange between which a conversion takes place. One partner gives repentance and receives in return forgiveness. I have already pointed out that in practice both parties may feel guilty so that both may be offering repentance and forgiveness at the same time, but this is not essential and not included in the model. Furthermore, I have assumed that the host is the repentant party. This assumption is made because the person who gives the feast demonstrates thereby that he is more anxious than the other to restore the relationship. It is he, therefore, who is playing the humbler role and this is expressed in the model by making him the 'repentant' party.

It will be clear that an expression of repentance does not necessarily imply that the other party will offer forgiveness. A man may invite another to a feast and the other may refuse to come. In that case there has been repentance but no forgiveness and no feast. The exchange cycle has been interrupted by the other's refusal. But if the guest comes, he indicates that he is at least willing to forgive. Even then, the transaction may break down. There may be angry words between host and guest; the guest may expect some additional reparation and not be satisfied with what he gets. The ideal model of Orokaiva social relationships, however, assumes that the conversion will be successful.

The third binary opposition is between the mediating elements. I have already said that Orokaiva social relations move from a state of permanent strife marked by acts of hostility to temporary reconcilations mediated by the common eating of meat. There is justification for treating these concepts as binary oppositions. I have demonstrated that the common eating of meat is a mediating element because without it no exchange of repentance and forgiveness takes place. It

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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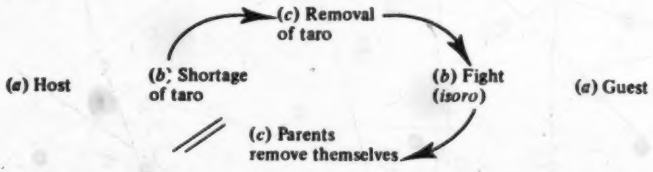
goes without saying that acts of hostility are also mediating elements as, in their absence, there would be nothing to repent or to forgive.

In addition to three binary oppositions, the model contains a cyclical movement. One may start reading the diagram at any point on the cycle. For instance, one may start with acts of hostility, *isoro*. (According to Orokaiva philosophy, such acts require no special explanation.) These are followed by repentance, shown by the host in inviting the victim of these presumed acts of hostility to a feast. The sharing of meat follows, after which the guest, either in words or gesture (and probably by subsequent actions), indicates that he has forgiven whatever he had been angry about. Then, sooner or later, social relations lead to new acts of hostility and the cycle starts again.

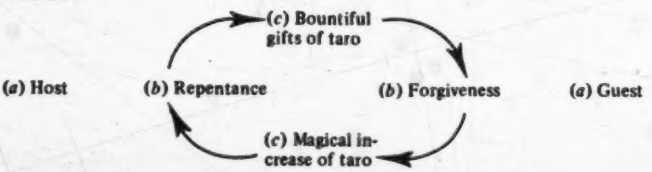
While this model expresses adequately the Orokaiva view of social relations, we must admit at once that the feasting myth from which it was derived communicates a more complex message than this. It deals, in fact, with two exchange cycles at once, but overtly the myth does not mention the sharing of meat at all. On the contrary, it is concerned only with the sharing out of taro. The exchange partners are again host and guest; the exchange, as told in the myth, is between a shortage of taro provided by the hosts and a fight provided by the guests. The mediating elements are: the removal of the taro by a thief (arising out of the shortage; bringing about the fight) and the removal of the demigods responsible for the feast. The exchange cycle created by these elements reproduces the sequence of the myth:

MODEL 2



It will be noticed that the exchange cycle is incomplete. In the next section of this chapter, I shall show that exchange cycles in myths are always incomplete, and I shall explain why this is a special characteristic of myths. Indeed, the chief message of the feasting myth is that the incomplete cycle shown above should *not* be repeated; instead it is the following cycle that has become institutionalised:

MODEL 3



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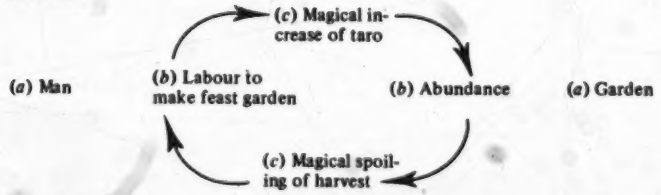
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 571 574 [243] [789] This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

574 182 [243] [789] [728] In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

574 243 In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

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OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

Informants were all agreed that at any time either the *enda mama* or the junior member of a land-holding corporation may opt out of the relationship: such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

When such separations occur within a three-generation extended family, they are regarded by the community as (minor) misfortunes. On the other hand, they are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

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OJ23 Orokaiva OJ23
Mountain Orokaiva

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423
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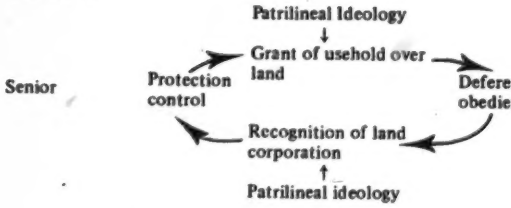
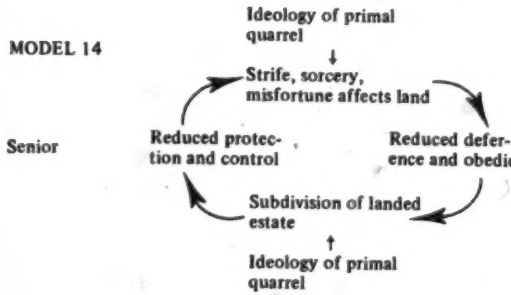
MODEL 13

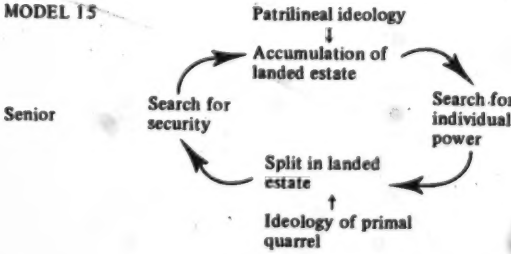


MODEL 14



Models 13 and 14, when considered together, represent two phases of the history of a family. In the first phase a man who has separated out, aided by his sons, establishes his own landed estate. Gradually, he adds to his estate in various ways (conquest, inheritance from maternal relatives, etc.) and he adds to the number of adherents to whom he is *enda mama*. Before two generations have elapsed, the estate thus established will probably be subdivided again. The process of incorporation and subdivision repeats itself *ad infinitum*, and may be expressed in the following cycle:

MODEL 15



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Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage. 423 425 583

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship. 582 423 425 [613] [166] [571]

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence: 121

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status. 423 583 425 [558]

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him. 423 431 736

3. Cripples and widows are often in a similar position. They may need a

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
[169] Such gifts, apart from their economic significance, buttress social relationships both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
593 made to a sister or daughter, the husband or son or the recipient must subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

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OJ23 Orokaiva OJ23
Mountain Orokaiva

best definition of 'residual rights' would be 'benefits that are claimed when the social exchange relationship has broken down'. They are a sanction applied to punish the loosening of quasi-filial allegiance. 423 425 571

The case of Inonda is atypical as the entire village domain is held under an arrangement derived from the ideology of exchange. A more frequent pattern is for an individual to own some blocks of land in virtue of more or less permanent gifts. In neither case does this land mediate sacred and indissoluble bonds. In the case of patrilineal inheritance, the individual violates no supernaturally sanctioned rule if he cuts himself loose from his *enda mama* (and often keeps his land). In the case of land gifts, he may also cut himself loose if bonds of affection and expediency weigh less with him than the cost of satisfying his donor. If he should break with his donor, there is likely to be theft, intrigue, sorcery and perhaps violence and it is quite unpredictable who will eventually occupy the land.

If a man has only gift land at his disposal, he is in an insecure position in his relations with his exchange partners. This seems to be the case in Inonda. If a man has only patrimony land, we may assume that he has no close bonds outside his extended family and lineage, as such close bonds would probably have led to offers of land. Such a person has too narrow a base of social support in the community to count for much, and to counter effectively challenges to his position and property that will be made from time to time.

7. *Conclusion*

It remains to be shown that the facts and analysis of land transactions illustrate the general principles set out at the beginning of this chapter. I have dealt with a series of social relationships in which one partner has a strong need to identify with the other, to maintain a stable and permanent bond and to obtain what the other has to give. This need was sometimes social, sometimes economic, sometimes emotional, sometimes religious. All these bonds depended heavily on land for their efficacy. 423 571

I have shown that a donor of land does not necessarily separate himself irrevocably from the land as such, but from the usehold of it and thus from the productivity of the land for a certain period. There are no return payments which can ordinarily compensate for the gift, the main purpose of which is to mediate a certain social relationship. The donor can never quite know in advance whether the gift will be efficacious, as the receiver of the land may not, in the end, make the social prestations for which the donor hopes. The receiver is usually someone from whom substantial social support, in one form or another, can be expected. The relationships arising in land transactions are therefore precisely those which my model was designed to interpret. 423 425 571

In the introduction to this chapter, I argued that a gift could be regarded as a 'mediating element', for the purpose of my analysis, only if there is identification between the donor and the mediating element. In the case of land, we have seen that the owner strongly identifies himself with the lineage spirits believed to be resident on the land. The land is a part of him, just as his ancestors are a part of him. By transferring the land to another person he causes that other person in turn to identify himself with the land. He is thus magically 423 425 775

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, the commitment of productive effort outside the range of the security circle all tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.
2. For the location of Garombi, see Fig. 10.
3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.
4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

824 The present chapter elaborates these ideas, as applied to taro gifts among the
431 Orokaiva. With the aid of some recorded myths, I shall try to show just how taro
501 is conceptualised, in what precise sense it is symbolic of 'hearth and home', and
121 specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish between two specific ritual statements that can be made with the aid of taro and show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

602 It is obvious that taro exchanges cannot make any essential change in the
431 relationship of members of the same corporate group. By definition, this
824 relationship is already determined by the rules of incorporation. Thus, two brothers do not become more intimate by exchanging taro. On the other hand, if the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

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OJ23 Orokaiva OJ23
Mountain Orokaiva

records of taro gifts made in Sivepe village, the number of gifts made and received averaged 2.5 daily, ranging from a minimum of 1.3 averaged by the household least involved in the exchange system, to a maximum of 4.1 averaged by the household that made and received the most frequent gifts during the period. Allowing for variations in size, age and personality characteristics in the various households, these figures present a fairly homogeneous picture of customary exchanges.

Most of the gifts were made within the village, though a small proportion went to relatives and good friends who visited the village or who were visited by members of the Sivepe community. The usual practice was for the woman to bring home with her from the garden not only the taro her household was to eat that night and the next morning, but also taro to be used for giving away. When the recipient was of the same village, the taro would be cooked and presented ready to eat. The presentation was hardly ever made by the husband and most frequently by the children who were sent over with the cooked food and gave it to the named recipient without any ceremony. When there was any ceremony about the gift at all, the housewife was the proper person to make the presentation.

If I inquired who was the donor of the food I was often given the name of the woman, but sometimes the name of her husband, especially if the recipient was one of the husband's close kinsmen. There was always the notion that the gift served to maintain a specific relationship which would be involving either the husband or the wife. Strictly speaking, by far the greater proportion of the gifts were thus made to consanguines rather than affines. But it is better to regard the household as an integrated unit in its relations with other households, as the spouses undoubtedly mostly discuss together to whom food should be given. Essentially, taro gifts mediate relationships between households rather than individuals.

The size of the gifts was constant and seemed to be approximately what one person would eat for a meal. If a household made a gift of several meals to another household, this would be described to me as several gifts, with specification of the names of individual recipients. Here again, there was a contrast between the strict form of the gift and its overall significance. Strictly it was food given by one person in household A to one person in household B. When the family sat down to eat, the person who received the gift taro would share it out to others in the household. Therefore one may say that the gift was, in its general effect, from one household to another, but in strict form, it was emphasised that the social relationship between households A and B was mediated by one person in each household whose relationship was especially close. Thus, I might be told that 'X' sent taro to his brother 'Y'. In fact, X's wife would give the taro to one of her children who would take it probably to Y's wife. Y's wife would give it to Y, saying it came from X. Y would then give everyone a piece of it. A single gift would thus mediate quite a number of bonds.

As the gifts were very frequent, it seems a hopeless enterprise to specify on what occasions they were made; at first I thought taro gifts were made without any reason. Nonetheless, it is useful to discuss briefly a series of instances when taro gifts are considered appropriate. Let us first list a few of the more formal occasions when the housewife herself would make the presentation:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

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OJ23 Orokaiva OJ23
Mountain Orokaiva

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/1

SIVEPE: TARO TRANSACTIONS BY HOUSEHOLD

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Household Code No.	*Total Transactions*	*Sent*	*Received*	*No. of Partners*	*Degree of Imbalance**
1	58	40	18	9	4
2	37	1	36	6	6
3	41	26	15	9	3
4	57	35	22	9	3
5	101	54	47	14	1
6	70	45	25	4	3
7	87	24	63	12	5
8	56	33	23	3	2
9	71	40	31	6	2
10	58	21	35	5	3
11	68	36	32	10	1
12	117	59	58	8	1
13	85	44	41	7	1
14	101	52	49	7	1
15	60	34	26	11	2
16	60	37	23	13	3
17	79	50	29	14	3
18	62	9	53	10	6
18a	48	37	11	10	6
19	81	54	27	9	4
20	84	46	38	12	1
21	82	41	41	8	0

* Code: 0 = larger donor gives exactly 50% of gifts;
1 = larger donor gives 50–55%; 2 = larger donor gives 55–60%;
3 = larger donor gives 60–65%; 4 = larger donor gives 65–70%;
5 = larger donor gives 70–75%; 6 = larger donor gives over 75%.

mediating element in the perpetuation of social relations. Within a village, social relations of some sort exist between almost all the members. In my enquiries in Sivepe I came across only one instance of two men, both resident in Sivepe, who denied having or ever having had social relations of any sort with each other. There may have been one or two more instances I did not detect, but they would be very rare. Social relations between households in a village may range from very distant (when no taro gifts are exchanged) to very intimate (when taro gifts may be made four or more times per week). Many households have social relations which are close but not intimate, symbolised by taro gifts made a few times per month. The frequency of taro gifts is of course not the only way of symbolising intimacy, though it is the sign I found the easiest to quantify. It was my impression that those households which maintained the most frequent informal association with one another were also those who made each other the most frequent taro gifts. These were the households who were deeply dependent

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

924 431 621 571 on one another in sentiment, in economic tasks, in political support. They would tend to side with one another in village disputes. Thus, taro gifts were a ritual statement in which one household expressed its desire for close association with another.

Now, on this level of association, mutuality and reciprocity are obviously essential if the association is to be established on an equal footing. The return gift should therefore not be considered principally as an obligation (arising from a 'norm of reciprocity') but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of gifts is closely connected with the question of how intimate either side wishes the association to be. An increase of the frequency of gifts means a desire for a more intimate association. The recipient may wish to keep the association within certain limits. The Garombi migrants who gave more than they received seemed to be constantly trying to build up new alliances and were welcomed more warmly by some of the old residents than by others.

Failure to make a return gift of course does not always 'mean' that one is not interested in maintaining social relations of the closeness envisaged by the other party. There are many circumstances when people are not immediately in a position to make return gifts. In such cases I would not say that the recipient remains entirely without obligation, but rather that the obligation is delayed indefinitely. Thus a man may say he is giving food to his father or other senior relative because of some benefits received in the past. (He was himself fed by the senior person in his youth; he was helped with his bride-price, etc.) Or else a man will say that when his hosts visit his own village, he will then reciprocate. In fact guests customarily press their hosts to make an early return visit and hosts sometimes feel some obligation to do so. It is a pleasurable obligation no doubt, but it is clear that the purpose of such a journey is not to get one's taro back but to maintain the association.

It follows from this discussion that the households to which the most frequent taro gifts are made are those with which the greatest intimacy is desired. If the recipients, though fully capable of making equally frequent return gifts, reciprocate too half-heartedly, the donor household will probably reduce its gifts to the level acceptable to its partner. If the recipients are not capable of making equally frequent returns, the frequent gifts will continue, and the taro ledger will remain unbalanced. Thus, irrespective of the degree of balance, we may regard high frequency of taro gifts as a generally reliable index of intimacy of association. I am leaving out of consideration here the question, raised by Sahlins (1965), of whether degree of balance is determined by kinship distance. Exchanges of taro have a social as well as an economic aspect. Where the social aspect is uppermost (i.e. where the exchanges are not primarily based on need), they tend to be close and balanced, as long as both partners are satisfied with the prevailing frequency of interaction. Where the economic aspect is uppermost (i.e. where one partner is for some reason unable to harvest his own taro), no *social* importance is attached to imbalance and Sahlins' generalisation would probably hold for the Orokaiva of Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *Clusters and Chains, Two Patterns of Intimacy*

How can taro gifts mediate close associations among larger groups than dyads of exchange partners? This involves a complex sociological problem that cannot be solved in the framework of the present study: why do men tend to give disproportionate attention to a very small number of their closest associates and much less attention to a larger group who are still close and trusted friends? A principle of allocation clearly operates here: intimate relationships demand more time and energy than can be devoted to the entire circle of close friends. But it is by no means clear what is the role of intimates as distinct from other valued friends. This hierarchy of association, whatever its explanation, is very evident among Orokaiva, not only in the way in which individuals spend their leisure time and compose their co-operative groups, but also in their allocation of taro gifts among their exchange partners.

In Sivepe the number of exchange partners maintained by a household varies from three to fourteen, with an average of 8.5. The first (i.e. most frequent) partner is involved in an average of 38 per cent of all taro transactions, the second partner in 24 per cent, the third in 12 per cent while the other partnerships account for only 26 per cent of all transactions. It is clear that the first and second partners are in a very privileged position in comparison with the others.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of interaction. My impressions, supported by the statistical data and some generalisations offered by informants, is that each household has a few preferential partners to whom it gives or from whom it receives taro at least twice a week, but often far more frequently. In this sense every household in my sample had at least two preferential partnerships. Ten households out of twenty-two had a third, five households a fourth and one (the Seho clan leader) had five preferential partnerships.

The data show that where households are linked by primary kinship, they mostly set up a 'preferential' taro partnership. Only 30 per cent of preferential partnerships, however, fall in this category. The rest can be accounted for only if land transactions, political considerations, and the total past history of personal relationships and transactions are taken into consideration.

For statistical reasons alone it would seem that preferential partnerships are worth some detailed investigation. They clearly add substantially to the number of intimates on whom an individual can count for support over and above those who can be depended on purely by virtue of membership of the same corporate group. In addition preferential partnerships are of crucial importance as a basis for close co-operation between sets of persons larger than the exchanging dyad.

In Fig. 8, all preferential partnerships in Sivepe are shown in sociographic form. A distinction has been made in the sociogram according to the extent to which social preference is mutual. Households A and B may be said to stand in a 'closest mutual relationship' (marked by a hard line), if B is a first or second partner to A and A is a first or second partner to B. If none, or only one of these conditions are satisfied, the relationship is shown by a wavy line.

Though a full analysis of taro gift patterns has to await separate publication,

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/2

SIVEPE: TARO TRANSACTIONS BETWEEN PREFERENTIAL PARTNERS

Household Code No.	*First Partner*	*Sent*	*Received*	*Second Partner*	*Sent*	*Received*	*Third Partner*	*Sent*	*Received*
1	H17	7	11	H2	16	0	H5	4	3
2	H1	0	17	H3	0	11	H17	1	4
3	H2	12	0	H17	4	4	H4	2	5
4	H5	15	12	H3	5	2	H7	6	0
5	H4	12	14	H6	11	7	H21	11	6
6	H7	33	12	H5	7	11	H4	2	2
7	H6	14	30	H19	5	11	H4	0	6
8	H9	13	16	H10	18	7	H7	2	0
9	H8	15	15	H10	16	7	H13	4	2
10	H8	7	17	H9	7	12	H11	3	4
11	H12	10	11	H20	18	4	H18	6	2
12	H13	17	19	H14	15	19	H11	12	10
13	H14	21	17	H12	19	16	H9	2	3
14	H13	16	21	H12	17	16	H15	6	8
15	H14	8	6	H16	6	7	H12	3	5
16	H17	8	6	H15	7	6	H7	7	0
17	H1	11	5	H16	6	8	H18	7	3
18	H18a	0	15	H17	3	7	H11	3	6
18a	H18	15	0	H19	8	4	H17	3	3
19	H7	24	5	H18a	4	8	H12	5	6
20	H21	28	19	H11	4	8	H5	4	4
21	H20	22	20	H5	6	11	H11	4	1

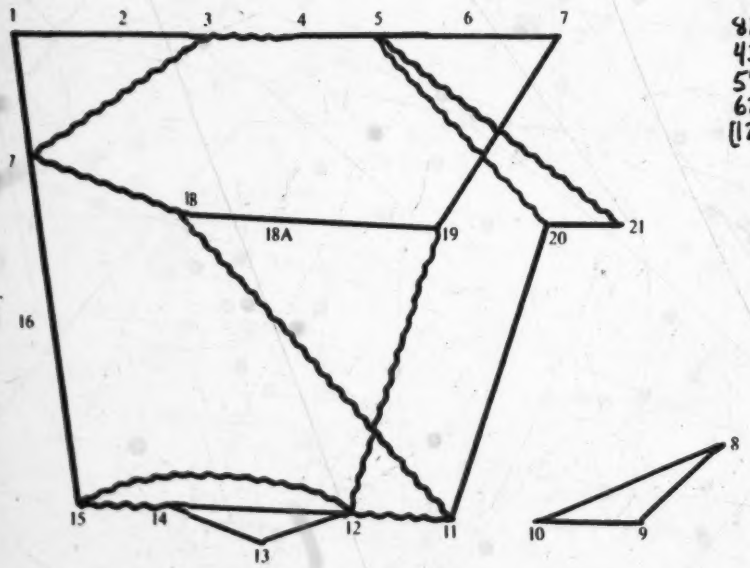

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Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

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Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . , Hn) is defined as a set in which H2 has a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *arara*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

628 In dealings between different villages, the use of a chain of mediators is extremely common. A will approach a fellow-villager B, who has connections in the other village; B will go to the other village and see C, his closest contact. C will then most likely go to D, one of the intimates of the person E with whom A desires to deal, and D will look for E. During the ensuing conversation, A and E will say very little, and it is the intermediaries who do most of the talking.

824 431 621 571 The intimate associate, often a neighbour, is thus extremely valuable, as he opens up a vista of alliances to which his partner has no easy access. A man's effective social network is therefore much wider than any network he could personally maintain by direct exchanges. Most of his effective alliances are vicarious and can be reached only through intermediaries.

The social network maintained by a sizeable circuit is therefore very considerable. It is greater than any solidarity group the Orokaiva could build up by maintaining their patrilineage bonds or by exclusively exploiting any other principle of kin group solidarity. The significance of gifts of cooked taro is that they maintain the intimate bonds needed to retain vicarious access to this network. Cooked taro mediates not only the exchange of intimate attachment, but also the exchange access to *alter's* private network of alliances.

If a village formed a perfect cluster, this kind of exchange could not happen, as all members share exclusively each other's most intimate alliances. Where a circuit structure prevails, a man's partner always has an intimate relationship he does not share, so that the man is dependent on his partner for access to that partner's distinctive exchange network. A society whose solidarity depends heavily on direct immediate exchange may have a rather wide network of alliances as long as it has strong institutional patterns of mediation. The importance of these patterns in Orokaiva society cannot, of course, be gauged by reference to taro exchanges alone, but it is now possible to inquire to what extent the model I have constructed on the basis of taro exchange applies in other areas of Orokaiva culture.

Clearly this model, if transposed to the level of marriage exchange, would include elements of both direct and generalised exchange. The cluster resembles direct exchange: the maintenance of relationships within the system depends entirely on benefits received from all households included in the system. On the other hand the chain has the circular form characteristic of generalised exchange. It includes households who receive no direct benefits from one another except the vicarious one of joint membership in the system. In some respects the chain, of course, differs fundamentally from a system of generalised exchange: the taro travels in both directions around the circle. But I have emphasised that taro is not strictly an object of exchange but of mediation. If there is a need to establish intimate social exchange between remote members of a chain, this will not be, as a general rule, for the exchange of identical benefits. Thus the benefits travelling in each direction along the chain may differ and may not belong to the same sphere of exchange.

While relationships within a cluster are very intimate, those within a large chain may require delicate diplomacy. Yet a chain does not, in my experience, contain members who are actively hostile to one another. The exchange of cooked taro has to to with the maintenance of friendly relations, and collapses if serious conflict arises. The management of serious conflict requires different

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Mountain Orokaiva

objects of mediation, such as pig meat, which will be discussed in the next chapter.

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REFERENCES

1 The propagation of the taro plant (*colocasia esculenta*) is illustrated in Fig. 7.

2 Waddell's survey excluded gifts to household members. This may explain informants' initial hesitance in mentioning them.

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CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

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lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

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Mountain Orokaiva

to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

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Mountain Orokaiva

successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

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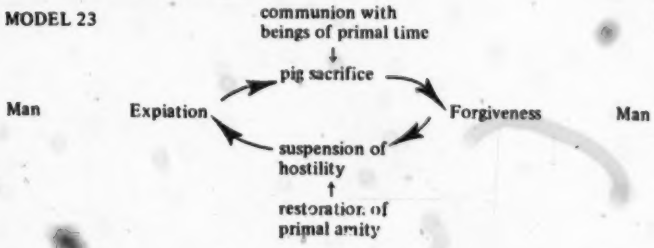
Mountain Orokaiva

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

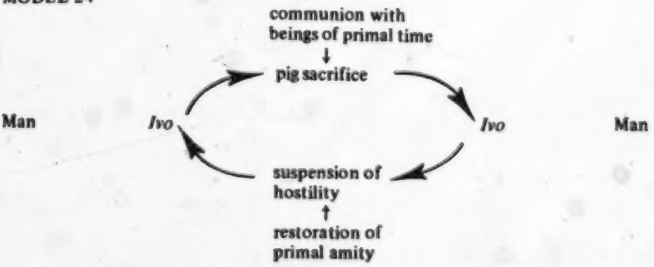
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24



In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

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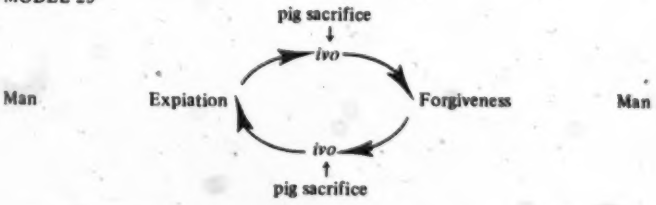
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

574 628 721 728 could not help noticing the connection between the reconciliation and the simultaneous fear of sorcery to which I have already referred. But perhaps neither historical explanation is necessary.

It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1). The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 602 578 754 The model applies not only to inter-village relations but to all social relations in general, consanguineal and affinal relations included. Quarrels between consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

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571 602 518 754 conflict, necessarily precede recourse to sorcery. It is believed, however, that such relatives will not usually carry their resentment too far. As soon as the afflicted person makes his apologies and shows himself ready to make a pig sacrifice, such sorcery will normally case. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives [431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

571 579 602 583 Prestations between affines have a similar explanation, though the pattern of hostile action and retaliation between affines is somewhat different. The first hostile action in the series tends to be the abduction of a woman for purposes of marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

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OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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5 This interpretation of Orokaiva sorcery appears to be largely supported by Lawrence and Meggitt who argue that in societies with 'stable social organisation' (among which they count the Orokaiva), sorcery accusations act 'both as an important medium for expressing enmity and as an excuse for initiating warfare, which is ultimately the most effective means of relieving feelings of aggression' (1965: 17). The authors appear to believe that sorcery can be explained along psychological lines as fulfilling a need for channelling aggression (*ibid.* 18). I find it hard to see how the specific facts of sorcery behaviour (and especially the transactional patterns described in these pages) can be explained in terms of universal needs. Sorcery is only one of many substitutes for physical aggression and all these substitutes, in one way or another, serve to maintain a relationship of negative reciprocity.

Accusations of sorcery probably have a cognitive as well as an effective 'function', for they imply an explanation of misfortunes for which no natural cause is known. Furthermore, such accusations turn misfortune into an object of mediation in (negative) social exchange. The assumption is made that the misfortune will continue until the relationship with the sorcerer is basically changed, either by his defeat or by reconciliation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

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A [See Cat. 571, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified with it. Identity, in this instance,[1] is not defined as attached to an individual but rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will henceforth regard it, in the same sense, as a symbol of identity. The ornament is then called an *otohu*, a term to be defined later. It is worn by its owner and those who see it recognise it as a symbol of its owner's moral integrity. It indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*pauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some form of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the 'husband' who either gives a woman in exchange (direct marriage exchange) or else makes some kind of reparation for having deprived his exchange partner (generalised marriage exchange).

REFERENCES

1. Erikson, describing 'the beginnings of identity' in the adolescent, comes rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

reciprocating pairs of groups in a state of pseudo-commensality. They share not only the land but also its products. The symbolic significance of taro, as set out in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social structure. Social structure, in the sense in which I am using the term, is most clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to the structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 602 It is by virtue of such interpersonal ties, hardly less than by shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, [428] by these means, claims to inherit land are established in many circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample A (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of different clans and of other villages hold a contiguous section [613] of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

[1] In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

A. [See Category 601, p. 52--Analyst]

554 Only occasionally do his monetary aspirations appear openly to conflict with customarily defined Orokaiva behaviour. Two such cases may be instanced.

432 While the practice of 'marketing' pigmeat is becoming increasingly common among the inland Orokaiva, initially to 'strangers' by hawking around villages or selling it at Saiho market, it is also beginning to operate among kinsmen at the intra-village level. 'Marketing' normally follows the unpremeditated killing of a pig, as in the case of one having broken into a garden. Two cases occurred in Sivepe during the year, one organised by the village councillor and the other involving a pig of Linton's. While Linton shot the pig himself and decided to 'market', at the last moment he left the village and another member of Timumu clan cut it up and sold it, giving all the proceeds to Linton's mother.
[431] In a third case Linton had decided to distribute the legs as hande[1] but market the body. Again at the last moment he changed his mind and made hande with all the meat.

472 Linton faced a similar conflict between custom and cash in his hunting activities. As
224 the owner of a shotgun he did a great deal of hunting, particularly in the dry season, formulating a business arrangement with non-kinsmen from other villages whereby he would
● [571] hunt on their behalf if they provided the cartridges and a cash payment of 10c with each cartridge. In return he guaranteed a flying fox for each cartridge. By such a restriction of entrepreneurial activities to people outside the 'sympathy group'[2] an effective compromise is achieved between customary values and commercial aspirations, and individual security founded on reciprocal exchange among kindred is not impaired.

554 Linton's status in the community, and the diversity of his interests and loyalties, is manifested by his being the most active person in the sample.[3] With a mean activity week of 52.9 hours he distributes his efforts throughout the range of activities (with the exception of household and sickness which are predominantly the concern of women) leaving little time for informal socialising.

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1 Hande: a prestation where subsequent reciprocation is expected.

2 i.e. the group 'to which the individual feels he owes allegiance; he gives them his sympathy, and from them he expects to receive sympathy; and their limits are the limits of his intra-group morality' (Williams 1930:310). For a lengthy discussion of the concept see Williams 1930:308-36. See also Lawrence's discussion (1967:101-5) of the 'security circle', an analogous concept.

3 With the exception of the girl in full-time employment at Sasembata clinic.

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed 437 osisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more 574 specifically to ceremonial distributions and feasts organised by 431 the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and [578] hostile nature made in connection with unresolved disputes such as [574] encroachment on land, or the stealing and unauthorised killing of [614] pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, 572 but not normally reciprocated, is known as umbare. Such gifts are 574

[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,(See Category 574, p.26--Analysis)

Chapter 12

The two villages compared

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(a) The form and content of exchanges

The data on exchanges are of a less comprehensive nature than those dealing with activity patterns. Hospitality, 'a cardinal virtue with the Orokaiva' (Williams 1930:37), has been disregarded as has a range of minor transactions, such as the loan of tools, temporary care of children, the casual movement of the lime gourd from hand to hand and much of the sharing of areca at informal gatherings. However, such exchanges replicate those of the more important goods and services dealt with, in terms of both their form and function.

[571]

There are only minor differences identifiable in the basic characteristics of exchange in the two villages. Each manifests a demand for cash that greatly exceeds the returns obtained from cash cropping, with the latter only one of several important sources of income. Nevertheless, the juxtaposition of monetary and non-monetary exchanges largely conforms to traditional concepts of morality where the principle of reciprocity operates within the 'sympathy group' and monetary transactions are effected, almost exclusively, with indigenes lying outside this group and with institutions located in the external sector of the economy. Thus a precarious, and probably only temporary, compromise has been achieved in which group solidarity and individual commercial aspirations each operate within socially and geographically identifiable contexts. The decision of the senior member of the largest Jegase lineage to 'market' pigmeat among villagers, and Linton's own dilemmas in the matter clearly demonstrate the vulnerability of the Orokaiva ideal of reciprocity in the face of progressive commercialisation of their economy.

However, to make a strict division between monetary and non-monetary exchanges can be misleading for, not only do specific goods and services marginally overlap the two categories, but many of the latter exchanges are not unlike the former in character. The principle of reciprocity underlies them all, although the system does not require that like be exchanged for like, and one type of goods is often reciprocated by another or goods by

241 422 592 423 Later again, in line with an agricultural officer's recommendation, he encouraged each son to plant individually. He proposes that his gardens should be inherited by his sons jointly, with work and profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [518] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

422 24 464 [654] D has no younger brothers, but he did have a government loan (though it was not intended for hiring labour). With the loan and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with its clear-cut subordination, has no traditional precedent and is [591] incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [62] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

422 654 The entrepreneurs have all benefited from assistance given by government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

463 472 Seniority of birth. This seemed to be of positive significance for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] [571] Traditional leadership roles. The only position of traditional leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 472 571 621 Non-traditional leadership roles. It is to be expected that Orokaiva entrepreneurs will hold responsible and respected positions in their community. The table below shows a positive correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that
592 it may.

Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
[366] derives from the land and social security from the fulfilment of obligatory ties which bring reciprocal returns in times of sickness,

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 591 602 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings No.	Period	Payment	Non-relatives from same village	Non-relatives from difference village No.	Period	Payment
A	-			-	1 1	1 month 2 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3. Abandoned as unsatisfactory.	3	occasional	$2.50 per week

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Musu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to consider-
[556] ably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below.A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

We have to establish values for X, Y, C for each episode, i.e. for each prestation. Under 'social behaviour patterning rules', we would need to treat formal and contextual social relations between classes of actors as contexts because a quite different 'meaning' needs to be attached to a prestation according to whether it is made between, for instance, cross-cousins, affines, feasting partners or hereditary friends. (For the Orokaiva, these differences are glossed in Schwimmer 1974.)

We could not retain the otherwise very useful class of 'convertibility rules', first established by Firth (1939), because prestations of taro, yam, areca nuts, pig, different types of ornaments etc. may follow varying 'rules of syntax'. Even if such objects belong to the same 'sphere of exchange', their convertibility as signifiers can never be assumed on the basis of a functional classification but must each time be established by specific semiotic investigation.

To give another example, in an investigation of daily intra-village taro prestations among Orokaiva I found that the meaning of the gifts was systematically affected by their frequency (chronemic rule) and by the distance between donor's and recipient's residences (topological rule). Subtle nuances in social distance could thus be signified.

These examples give some idea of the kind of rigour the semiotic analysis of exchange demands. While most kinds of constitutive rules to be discovered in exchange systems fall into the standard types enumerated by Bouissac, there are two kinds that may be specific to ritualised prestations. These need to be briefly presented. The first kind may be called 'equivalence rules', and specifies the conditions under which two patently different objects will be deemed to be 'equivalent' in the sense that one is fair (balanced) exchange for the other. The term is due to Daniel de Coppet (1968) who gives examples, taken from Malaita ethnography, that show very clearly that the equivalence here is not inherent in the objects exchanged but purely in the representations Malaitans have about what they stand for.

If we use the same symbols as before for constitutive rules, and write a transaction as two prestations P1 and P2, and if

P1 = X1 stands for Y1 in context C
P2 = X2 stands for Y2 in context C

then P1 and P2 are equivalent if the recipient in P2 considers them to be so. Where social relations between exchange partners are, ritually speaking, symmetrical, equivalence will normally be restored by a return gift of objects of the same kind, the same quantity, the same quality. The need for writing equivalence rules arises where role attributes or formal capacities are complementary, and where X1, X2 cannot be objects of the same kind so that their equivalence must be established by a cultural rule. The most famous example is the *mwali*/*soulava* exchange in the *kula*. Malinowski wrote (1922: 356) that the two ornaments are 'equivalent' if of the same quality. Also, 'the armshells are conceived as a female principle and the necklaces as the male.' Moreover, speaking metaphorically of Dobuans (recipients of 'female' *mwali* armshells), Trobrianders said 'they are women'. We may therefore in this case

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

571 The social universe of the different families diverged markedly from one another; the small number of extended families composing a minor patrilineage (marked by the possession of a common plant emblem) would share each other's social network and obligations to a large extent, but the same could not even be said for clansmen of different plant emblem groups. In such a culture, the term "outsider" must be situationally defined. For certain situations, only those who share a clan emblem are insiders; for other situations, only clansmen; for others, only residents of the same village, while I can also think of situations where the group of "insiders" embraces a much larger group. We may list the following set of widening concentric circles, as useful for the present study:

(a) Closely allied villages (especially Sivepa, Carombi, Binduta)

(b) The Sasembata district: defined as comprising Sasembata parish or the three Sasembata local government council wards. This is an area close to the road from Kendata to Boru, and never more than an hour's walking distance away from it.

(c) The wider solidarity group to which Williams and several other earlier authors have referred as the "Waseta tribe" (see map)

(d) The indigenous population of Ilimo camp

(e) The "Orokaiva" people

(f) Papuans and New Guineas other than Orokaiva, without special administrative roles

(g) Papuans and New Guineas with offices in the administration, and the Church

(h) Chinese traders

(i) Persons referred to as "taupa" (white man)

(k) The Americans (a special, and by this time somewhat mythical category)

(l) White men believed to be dead ancestors who have returned

For the purpose of this study, I have avoided systematic reference to social structure and emphasized residence rather than kinship. The Inonda pattern resembles, in general, that of Sivepa, except that the sparseness of the population makes the immediate [628] social environment somewhat simpler. Sivepa has significant relations of one sort or another with dozens of villages; Inonda's social universe hardly comprises more than half a dozen, and small ones at that. On the maps Inonda is shown as part of the Sauaha "tribe," but Crocombe and Hogbin treat Sauaha as simply another clan in the vicinity and it is likely that the larger military grouping of which they formed part were Monckton's dreaded Dobuduru.

121 It is our task to consider changes in the patterns of contact with each of these 11 categories of outsiders (as between

[21] January, 1951 and 1967), both in Sivepe and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

628 The concept of a "closely allied" village is a difficult [621] one: it is not often, in these days of peace, that a village [571] really acts as a corporate unit, so that contacts between villages tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved [764] village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Hohorita, with 400 inhabitants, when an old man died at Sombou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepe, Inonda,

629 village. Williams, in marking out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X) A but "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepa. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[572] closely together than formerly. I obtained from a number of Sivepa
men a list of "friends" and inquired into the occasion when the
[582] friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepa I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
628 period, (the atmosphere of an evacuation camp was certainly not
619 a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organizations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were elite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepa and Soroputa or Agenahambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

was accomplished without any European power bearer making his appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

In this section I have said little about Inonda, because I did not have time to clarify what "tribe" Inonda really belongs. Williams' tribal map shows Inonda as Sauaha; Crocombe and Hogbin describe Sauaha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

Generally, contacts outside the "Waseta tribe" are sparse. During the year, only one visit was made to Sivepa, in a kinship context, by persons from another district. This was a group from Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

When the members of the "Waseta tribe" were accommodated at Ilimo, they were not only the guests of the government which supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garombi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert,
[554] dancing expert and some others. One of these experts, the feasting
[622] expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility
[614] for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari embo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader.
614 In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

625 731 excursions. This was, however, an experience of short duration and, once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] [571] With regard to interpersonal relations, the evacuation set up a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 571 The Orokaiva are not often observed to work in groups; from the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to [342] [177] describe this pattern as Individualistic. After all, every house was in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 654 571 Unwittingly, the Australian government has tended to make the Orokaiva more oriented towards group work than he was before. Road work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

654 The rubber plantings followed a quota established for each village;
177 in practise, a village man would make one of his garden plots available
571 to the community at large and all the village trees would be planted
476 there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

474 It is paradoxical that the Australians, after first encouraging
177 this group orientation, soon found themselves fighting against it, in
241 the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966).
[777] It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers" consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Waseta and each man took his own rice back home, giving a

474 plus other amounts of unknown size--enough for the projected establish-
443 ment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timuna clan, to which Rimoldi refers, were lost along with the Jegase savings.

454 In 1966, two group savings accounts were in operation. People
621 had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

474 The only cooperative effort known to me at Inonda was a regular
439 arrangement by which vegetables grown at Inonda were carted to the Bubi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

571 Finally, a notable aspect of social organisation in the post-
[554] eruption period is the emergence of leaders whose authority rests on
[177] two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted)
654 but only to recognise them as an effective source of compulsion. The
571 people of Sivepe, as well as Hohorita verevery much aware that the
623 position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepe, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Carombi, a neighbour-village to Sivepe. Here traditional and modern authority were vested in different persons, whereas in Sivepe both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepe and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepe were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepe; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepe was wholly Christian. The most senior man in

657 retained as much land as they had before, after the boundary was cut.
423 They had received some Sivepe land and they had lost an approximately equal amount of their own.

Thus, the lower Sasembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect, of being misled by its own ideological bias. The enthusiasm people [591] felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of [731] a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any [126] of the others. He was the only one to have recognised that our [124] civilisation actually does have some moral values. I recorded stories from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a 157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned servicemen's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepe, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepe, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the woman's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were though extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

Children were trained by their parents in the prevalent system
867 of custom and belief, as modified by recent changes; they maintained
869 their traditional regard for their elders, not regarding their school
177 knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly
602 expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepe. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

The penalty threatening an absentee who neglected his kin had
[626] to be paid when that absentee returned; especially when that absentee
[423] wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

For those who remain in the village, the sanctioning mechanisms
626 are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
621 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[1154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[1126] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local
[628] kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[1728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,",
241 but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession
[1578] and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend
361 to occur in exceptionally dry southeast winter seasons. During
261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
731 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[1990] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement co-operation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that instead of timeless constructs of primitive philosophers we are occupied with a series of historical events both before and after the eruption, all of which became signs much in the same way as the eruption; the explanation will take the form of the tracing of associations between these signs. There are, however, some stable principles governing these connections. We turn to these first.

I have argued elsewhere that the social structure of the Orokaiva is characterized by a weak patrilineality with small corporate groups but that exchange transactions between these groups are, in many respects, highly structured (Schwimmer 1970a, n.d.). These exchanges follow rules which are justified by an elaborate system of thought arising out of the principle that gift making is the source of social potency and exchange is the measure of that potency. Such a system, by its very nature, makes no assumptions about the permanency of social associations, as it is only the success of exchange transactions that allows associations (outside the small corporate groups) to endure. Decisions about the upkeep of particular associations are of necessity determined by criteria of allocation. According to Orokaiva ideas, associations go through alternating periods of positive reciprocity (friendship) and negative reciprocity (war). Whereas in Western thought permanence is considered normal and quarrels a deviation from the norm, the Orokaiva do not envisage either friendship or enmity as permanent states but rather as alternating temporary states.

The implication of this philosophy for social relations (and this includes Orokaiva-white relations) is that they never are what a Westerner would call "friendly" or "hostile." It would be more correct to say that at any given time they may be going through a positive (friendly) or negative (hostile) cycle. Movements from positive to negative cycles tend to be gradual, since in the Orokaiva view social relations tend to deteriorate constantly, little by little, until they become hostile. On the other hand, movements from negative to positive cycles tend to be highly dramatic and ritualized—usually through reconciliation feasts and gifts. In relations with Europeans, reconciliations are harder to effect since there is no commensality between the ethnic groups.

If it is natural for social relations to deteriorate constantly and gradually, it is still possible to decide that one will allow an association to deteriorate before one takes active steps to restore it. Such a choice is determined by many factors: intrinsic attraction

24: Schwimmer E-5 - (1966-1973) 1977
OJ23 Orokaiva OJ23

felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

601 our concern is with the total *philia* universe. Meaningful contacts outside the
[571] village tend to be almost wholly with persons of the same generation. I shall therefore discuss the intra-generational terms of reference and address, both in the kin and friendship idioms, and both in the Sangara and Sasembata dialects.

The kinship idiom[7] (discussed in detail in Schwimmer, 1970a) contains four consanguinal and three affinal terms; an oversimplified analysis gives the following meanings (for an explanation of the symbols, see footnote 7):

apa SS Sen G-O //C	*simbo* G-O X C	*dambo* Me SS G-O A
eambo SS Jun G-O // C	*ivu* husband	*hovatu* OS G-O A
du OS G-O //C	*ae* wife	*bi* Fe SS G-O A

602 Affinal relations, according to explicit Orokaiva norms, are cold, formal, and
601 distant though polite, and restrained by strict taboos. Affinal terminology always carries the connotation of obligation and avoidance, and it is never suitable for easy informal discourse. Indeed, when a person desires to keep up easy, informal relations with an affine (and this occasionally happens), his only resource is to maintain whatever term of address he used before the marriage.

All the consanguine terms, however, are regularly used in addressing unrelated persons with whom hereditary friendship links exist, at least in the [171] Sasembata district. *Apa* and *eambo* are also used between men in the same context as the Maori use the term *hoa*; that is, informally and without any implication of kinship or permanent relationship. The wife of a fictional *apa* or *eambo* is called *du* (sibling of opposite sex), but never by an affinal term. The fictional *simbo* differs from the fictional sibling with regard to reciprocal rights and obligations, as will be shown below.

572 The following Orokaiva terms are used exclusively in a friendship context: *namei* (Sangara) or *apa/eambo* (Sasembata), designating a male friend of a male speaker in the same generation; *otavo* (Sangara and Sasembata) meaning a partner in trading or dancing, or a journey, or a war expedition – a

7 The following classificatory principles underlie the Orokaiva kinship system:
Consanguine (C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.
Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G-O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: Me: Male. Fe: Female.
Relative sex of ego and alter: SS: Same Sex. OS: Opposite Sex.
Relative sex in consanguineal linkages: //: Relationship is either wholly agnatic or wholly uterine. X: Relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite sex linkage.
Relative age of alter: Sen: Older. Jun: Younger.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 less diffuse term than *apa/eambo*; *jao* (Sangara and Sasembata) designating a *namei* type of relationship between women, used commonly between unrelated married women living in the same village.

Friends as a Distinctive Set

601 572 The Orokaiva employ certain collective terms to designate the *philia* universe or distinctive parts of it. Thus, the term *mamahane* (father's people) designates the agnatic group, *epehane* (mother's brother's people) the maternal relatives, *aerihane* (wife's people) the affines, and *japehane* (literally, grandmother's people) the father's mother's group. There is, in addition, a term *nameikamei* which comprises the total *philia* universe including an undefined residue of non-kin as well as all the groups listed above. Although Sasembata do not use the term *namei* (friend), *nameikamei* is heard regularly. In neither locality was a collective term found which exclusively comprised the non-kin in the *philia* universe.

The term *nameikamei* certainly covered, apart from the kinsmen, the (Sangara) *namei* category and the *jao*, terms which are both regularly inherited bilaterally. I cannot say for certain whether the *otavo* and (fictive) *simbo* categories would be included in the *nameikamei* group. These terms may be employed in fairly casual relationships, but in time, persons calling one another *otavo* may decide to use a sibling term, thus making the relationship hereditary.

Statistically, non-kin make up only a small part of the *philia* universe. A man might be able to list several dozen *nameikamei* in villages more than three miles from his home, and non-kin would make up only 20 to 25 percent of such a list. (It should be noted that my statistics are somewhat cursory, as I could never be sure that any informant's list was complete.) Visits from non-kin tend to be made at greater intervals than visits from kin and they last a shorter time. One could safely say that non-kin are, on the whole, on the periphery of the *philia* network, as is the case among the Tangu.

An interesting difference between the two systems is that the hereditary relationship which is between fictive brothers-in-law among the Tangu, is between brothers (*apa/eambo*) among the (Sasembata) Orokaiva. It would be considered not only chilly but frightening for an Orokaiva to call his guest friend *dambo* – affine avoidance being stronger than among the Tangu.

Orokaiva Cooperative Alliances and Reciprocating Partnerships

571 [621] [614] Cooperative alliances tend to vary in size according to the purpose of the alliance. In pre-contact times, the village was a cooperative alliance in warfare and in large feasts, comprising between six to twelve households. For bridewealth and death payments, the alliance comprises the plant emblem group (Williams, 1925; 1930; Schwimmer, 1970a), the nucleus of which approximates a four-generation lineage, although it also has other members.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

571 But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

571 604 881 Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

602 572 171 How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

431 437 572 Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would [576] be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and [626] if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

[558] In considering the manner in which these gifts are given, Sahlins'

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

we find that taro resembles them in that taro gifts are ritual statements by which attitudes toward social relations are communicated. We may say, to use Mr. Sperber's terminology again, that in this respect they form a code structure. It will be shown that this code structure is again nonhierarchical, thus resembling coconut and areca. On the other hand, a statistical study of the behavior of exchange partners shows that, on the level of exchange structure, there are rules by which a hierarchy is unconsciously generated between households and between villages. A system which combines a hierarchical network with a nonhierarchical code might be described, in my terms, as political, though incompletely so.

Most taro produced by the Orokaiva (over 90% in the villages surveyed) is consumed directly by the producing household. Nonetheless taro is the most ubiquitous of all Orokaiva objects of exchange; most households give some of it away every day. It is also part of the conventional set of gifts that change hands on virtually every ceremonial occasion. The main purpose of such gifts is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. The ritual statements that may be made by means of taro gifts fall into two categories: raw taro, ritually given by men, tends to be part of a ceremony aimed at the establishment or restoration of social relations, whereas gifts of cooked taro, normally made by women, are part of the process of maintaining social relations of a certain degree of intimacy.

I shall base the following abbreviated analysis of taro symbolism on one myth. Of the several versions collected, I shall quote the fullest one, indicating variants where relevant. The name of the principal hero is usually given as Totoima, though this name does not appear in the version quoted. Williams has some references to the Totoima myth (see 1930:155, 158–159, 276), but these are not very illuminating. The following version was obtained from Samuel Jovareka, born at Kiorota and now a resident of Sivepe village:

> A husband slept with his wife. She became pregnant and gave birth to a small child. The husband came and asked:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

either by the housewife who has cooked it or by one of her children. The quantity is usually about two kilograms, which constitutes a very hearty meal for one person. Thus taro gifts become, for the anthropologist, an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges invariably follow. The same cannot be said for any other object of mediation, not even pig meat (which is exchanged only in specific circumstances) or coconut and areca (which may be given to very casual acquaintances). The exchange network of cooked taro therefore coincides with the network of intimate association.

I have made a somewhat detailed, statistically oriented study of taro-exchange networks which, for lack of time, cannot be reported here. During twenty-eight days, between 31 January and 10 March 1967, I recorded taro gifts made by all households of Sivepe village. The number of gifts made and received averaged 2.5 daily per household, ranging from a minimum average of 1.3 to a maximum average of 4.1. At the same time notes were kept of social relations between the households involved: work relations, common journeys, different types of visits between households, conversational groups in various parts of the village. The social interaction records were compared with statistics showing the households to which each household had given taro during the period, and the frequency of those gifts. There was a close correspondence between frequency of taro gifts and intimacy of social relations. There were also a set of types of formal occasions when such gifts were thought especially appropriate, e.g., when the recipient household was entertaining outsiders, had a new baby, a death, had performed some specific service; or if the recipient was old, incapacitated, ill. Nobody made taro gifts to everyone in the village: in the twenty-eight days for which I kept tally, the number of such partnerships varied from three to fourteen out of twenty-two households surveyed, with an average of 8.5.

The taro-exchange partners were always the persons on whom one was most dependent in sentiment, in economic tasks, in political support. They would tend to take one's side in intravillage disputes. Taro gifts thus were a ritual statement in

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

which one household would express its desire for close association with another. I inquired to what extent the gifts were balanced. I found, as Sahlins already suggested in 1965, that little importance is attached to precise balance in food gifts. In more than half the households the total imbalance exceeded the proportion 60:40. On the other hand, I also found that extreme imbalance usually has a special explanation, often old age, or special burdens which might be only temporary. Informants, when asked, deny there is any obligation to make return gifts. Yet the statistics show a strong tendency toward the sending of taro gifts on the same day or the day after one has received them. The recipient will explain that he is under no obligation but likes to reciprocate.

Certainly this attitude is in accordance with the explanation I have given of this custom. The return gift should not be considered principally as an obligation but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of the gifts is closely connected with the question of how intimate each side wants the association to be. An increase in the frequency of the gifts means a desire for a more intimate association. If the recipient wishes to keep the association within certain limits, he may be slow in making a return gift. Unbalanced exchange occurred, for instance, with migrants from a neighboring village (Garombi) who gave more than they received and seemed to be constantly trying to build up new alliances. They were welcomed more warmly by some old residents than by others. If recipients, though fully capable of making equally frequent return gifts, reciprocate halfheartedly, the donor household tends to reduce the gifts to the level acceptable to its partner.

There are, therefore, limits which households set for the extensiveness of their taro-exchange network. These limits are determined less by economic considerations than by sociopolitical ones. There is a limit to the number of intimate social relationships that any individual can maintain. A choice exists, within any culture, between allocating relatively little time to a relatively large number of associates or maintaining a small number of privileged associates with whom contact is very fre-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the need for several intermediary links to pass from one point to some other points. 824

The Orokaiva are wary of relations with persons with whom they are not intimate. They do not like to make even simple requests of such persons but prefer to make the request through intermediaries who are intimate with both sides. In that case it is possible, if the request cannot be met, for both sides to pretend that it was never made. No hard words are spoken, nobody is overtly humiliated. There is a customary blank, expressionless style which is used by intermediaries for the transmitting of requests—symbolic gestures of neutrality. The mediator avoids the risk of endangering his own alliance while still making what effort he can to satisfy the party seeking the benefit. If he is successful, the beneficiary is to some extent indebted to him. 571 431

This tendency to work through intimates sets up hierarchies in which almost anyone may at some time or other be the star figure. The total network available to an individual through such hierarchies is rather large, as the twenty-two households in my sample, for instance, have easy access to a total of seventy-five villages. Under the ecological conditions of the Orokaiva, no principle of kinship solidarity alone would provide a network of that size.

The basic ritual statement by which the presence of such intimate links is demonstrated is the feminine taro gift. Cooked taro, therefore, mediates not only the exchange of intimate attachment, but also the exchange of access to *alter*'s private network of alliances. The hierarchy of the taro network is based on the intimacy existing between any two consecutive links in the chain. The structure is hierarchical in that at the one end there is a household requiring a benefit, at the other end there is a person able to give that benefit, while the intermediate links are all necessary for the access to that person.

These hierarchies are more complex structures than those arising in the coconut-areca network. The system not only has the "circuit pattern" described above but also is capable of generating at all times new hierarchies linking persons who were not previously linked at all. Whereas the coconut-areca network

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

corresponded to restricted exchange, the taro network corresponds to a complex system of generalized exchange. We find both these types of pattern in the Orokaiva marriage system; we find them again in the exchange of objects other than women.

To a large extent, these hierarchies are formed by free choice. Both sides are able to regulate the degree of intimacy by speeding up or slowing down the rate of taro gifts. While thus the taro network offers a good deal of opportunity for subtle *political* manipulation, one crucial criterion is missing from the taro network that is required in a political *system:* conflict is never expressed in terms of taro, except in one case, to which I shall refer below. The fact of not receiving a gift of cooked taro is never, by itself, a *casus belli,* but only a sign of coolness. It may signify no more than a development in a relationship from intimacy to mere amity. It is unlikely to cause anger, unless there are other sources of conflict at the same time.

Male taro gifts, occurring in the context of a feast, should according to the rules not be competitive in quantity. A visiting village expects to receive in return no more and no less than what it has given. If the other side gives more than it has received, this is regarded as an act of hostility. One cannot compare such an act to the potlatch behavior of the Indians or Polynesians, because it is a violation of the Orokaiva rules—a provocation that frequently ends in actual war. On the level of ideology, it is still valid to say that taro gifts can be used, as ritual statements, only to express pseudo-commensality, intimacy, and affection. A quite different rule says that any excessive return gift (whether of taro or something else) serves to express hostility. I shall return to this point elsewhere (Schwimmer, 1974).

CONCLUSION

The purpose of this essay will have been achieved if I have been able to show how objects, in such societies as the Orokaiva one, are "total phenomena," or, perhaps more accurately, multivalent phenomena. Certainly one understands little of the Orokaiva way of life if one does not perceive that a taro, for

435 the latter. Also, migrants normally leave behind a family member
436 with the task of looking after the land (*simbari*) in a technical,
magical and juridical sense. Often he also leaves behind a wife for
167 whom he is saving brideprice but who meanwhile must be looked
after by his relatives. Money sent home therefore covers not only
feasting contributions but also the function of *simbari*. This is
not because village people would not perform such services free
of charge but because, when a man earns money, those who help
him earn that money are entitled to their share.

169 If we look only at the relations of production migrants have in
their jobs, they seem totally 'alienated' (cf. Parkin, this volume).
461 Not only have they no control whatever over the product of their
labour but this product lies entirely outside their conceptual
universe. Yet these migrants avoid proletarianization in the full
[571] sense because they continue to have a stake in the village
environment, which has its own economic, political and ideological
base.

435 Our remarks above apply similarly to the village cash-crop sector.
With the exception of coconuts, the use value Orokaiva see in
European cash-crops is either very limited or non-existent. Coffee
and cocoa are classified as non-foods, rubber latex as an unusable
substance. Even the coconut, though an important food when
fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of
these crops on village land nor their processing by village-purchased
[245] machinery. Everyone irrespective of age is growing coffee. Those
who are pressed for time tend to give priority to coffee and to
partially replace their plantings of taro with 'German taro' –
less valued but less laborious.[21]

245 Growing coffee is not considered pleasurable like growing taro.
824 When suggesting to an informant that coffee trees have a sweet smell,
I was firmly told: "*We* think the smell is dreadful". Such feelings
461 go to show that the division between the spheres of use value and
exchange value is not purely analytical but corresponds to a con-
ceptual boundary between two models of life and work, and that
Orokaiva try to keep this boundary clear. Coffee is grown because
it takes far less time than it would to grow subsistence crops for
the market, but the grower feels alienated from it while he feels
[438] identified with the subsistence crops. A small quantity of subsistence
crops – surplus to requirements – is in fact sold in local markets
for consumption by local people, but growers take the same care
with them and regard them in the same way as the food they eat.

461 It is paradoxical that the work represented as introduced by Jesus
[179]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gaga*. It will be noticed that the position of the taro on the *gaga* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social 431 relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to 437 the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered [572] important ritual services.

An exhaustive list of examples of such sacrifices, very often involving only 578 one pig and a rather minor ceremony, cannot be given. If a person has broken 431 off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded 571 to 'throw his plant emblem away'. If he does this, the person to whom the plant 825 emblem has been shown will sacrifice a pig. Again, if a man feels that he has [824] neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the 628 husband's sister, etc. to the wife's relatives. Feasts given on the occasion of 728 peace-making, or on other occasions where whole villages are invited can likewise 574 be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 The contradiction disappears if we regard communion with the god not 571 purely as the ultimate end of sacrifice but also (and simultaneously) as the 574 means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to 431 initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 621 [789] [754] crop failure at Hohorita would be explained as resulting from sorcery inflicted upon the people collectively by a sorcerer from one of the traditionally hostile villages near which the Sangara have been forced to live since the eruption. The sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 628 437 572 Yet it is clear, from the evidence presented here, that a feast does not serve to set up warm and affective relationships between collectivities: the host and guest communities, as such, do not actually eat together or converse with each other closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 628 778 While the evidence presented above is consistent with model 25, A that model does not account for all the facts under consideration. If we take a synchronic view of the transaction between host and guest, it is clear that both gain *tno* from the feast. The guest gains *tno* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *tno* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *tno*.

A [See Category 574, p. 148--Analyst]

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed oeisa - the informal daily distribution of small quantities of 437 cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more 574 specifically to ceremonial distributions and feasts organised by 431 the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship status and specific obligations being acknowledged.

626 Visura are challenge feasts of an avowedly competitive and [578] hostile nature made in connection with unresolved disputes such as [574] encroachment on land, or the stealing and unauthorised killing of [614] pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, 572 but not normally reciprocated, is known as umbare. Such gifts are 574

[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.26--Analyst]

431 only made with people from distant villages, who may or may not be
572 kinsmen, and they always involve a visit to the party making the
574 gift. This may be followed by a return visit at a later date but there is no necessary sequence or routine. Gifts made to relatives coming from a considerable distance to attend a mourning and those received as the specific motive for a visit (as in the case of Orokaiva going to the Managalase to receive di (feathers)) are both categorised as umbare.

121 Such exchanges and transfers of goods can be seen to operate within clearly-defined social contexts. Sahlins (1965:139) notes that 'A material transaction is usually a momentary episode in a continuous social relation'. He continues,

> A specific social relation may constrain a given movement of goods, but a specific transaction - 'by the same token' - suggests a particular social relation. If friends make gifts, gifts make friends. A great proportion of primitive exchange, much more than our own traffic, has as its decisive function this latter, instrumental one: the material flow undervrites or initiates social relations. Thus do primitive peoples transcend Hobbesian chaos. For the indicative condition of primitive society is the absence of a public and sovereign power: persons and (especially) groups confront each other not merely as distinct interests but with the possible inclination and certain rights to physically prosecute these interests. Force is decentralized, legitimately held in severalty, the social compact has yet to be drawn, the state nonexistent. So peacemaking is not a sporadic intersocietal event, it is a continuous process within the society itself....
>
> Even on its strictly practical side, exchange in primitive communities has not the same role as the economic flow in modern industrial communities. The place of transaction in the total economy is different: under primitive conditions it is more detached from production, less firmly hinged to production in an organic way. Typically, it is less involved than modern exchange in the acquisition of means of production, more involved with the redistribution of finished goods through the community. The bias is that of an economy in which food holds a commanding position.... It is the bias also of a domestic mode of production.... It is the bias of a social order in which rights to control returns go along with rights to use resources of production, and in which there is very limited traffic in titles or income privileges in resources. It is the bias, finally, of societies ordered in the main by kinship. (Sahlins 1965:139-41)

Individual exchanges are not, therefore, spasmodic acts. Together they form a system founded on the network of social relations. This

628 village. Williams, in marking out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X) A but "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepa. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[572] closely together than formerly. I obtained from a number of Sivepa
[582] men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepe I found one case of a man who married an Agenehambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
628 period, (the atmosphere of an evacuation camp was certainly not
619 a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepe and Soroputa or Agenehambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Iligaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sauaha; Crocombe and Hogbin describe Sauaha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[659] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

In this essay, I shall present data on the friendship universe and show that Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

Between the districts where the data were collected, there are slight differences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

601 [571] our concern is with the total *philia* universe. Meaningful contacts outside the village tend to be almost wholly with persons of the same generation. I shall therefore discuss the intra-generational terms of reference and address, both in the kin and friendship idioms, and both in the Sangara and Sasembata dialects.

The kinship idiom[7] (discussed in detail in Schwimmer, 1970a) contains four consanguinal and three affinal terms; an oversimplified analysis gives the following meanings (for an explanation of the symbols, see footnote 7):

apa SS Sen G-O //C	*simbo* G-O X C	*dambo* Me SS G-O A
eambo SS Jun G-O // C	*ivu* husband	*hovatu* OS G-O A
du OS G-O // C	*ae* wife	*bi* Fe SS G-O A

602 601 Affinal relations, according to explicit Orokaiva norms, are cold, formal, and distant though polite, and restrained by strict taboos. Affinal terminology always carries the connotation of obligation and avoidance, and it is never suitable for easy informal discourse. Indeed, when a person desires to keep up easy, informal relations with an affine (and this occasionally happens), his only resource is to maintain whatever term of address he used before the marriage.

All the consanguine terms, however, are regularly used in addressing unrelated persons with whom hereditary friendship links exist, at least in the [171] Sasembata district. *Apa* and *eambo* are also used between men in the same context as the Maori use the term *hoa*; that is, informally and without any implication of kinship or permanent relationship. The wife of a fictional *apa* or *eambo* is called *du* (sibling of opposite sex), but never by an affinal term. The fictional *simbo* differs from the fictional sibling with regard to reciprocal rights and obligations, as will be shown below.

572 The following Orokaiva terms are used exclusively in a friendship context: *namei* (Sangara) or *apa/eambo* (Sasembata), designating a male friend of a male speaker in the same generation; *otavo* (Sangara and Sasembata) meaning a partner in trading or dancing, or a journey, or a war expedition – a

7 The following classificatory principles underlie the Orokaiva kinship system:
Consanguine (C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.
Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G-O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: Me: Male. Fe: Female.
Relative sex of ego and alter: SS: Same Sex. OS: Opposite Sex.
Relative sex in consanguineal linkages: //: Relationship is either wholly agnatic or wholly uterine. X: Relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite sex linkage.
Relative age of alter: Sen: Older. Jun: Younger.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 less diffuse term than *apa/eambo*; *jao* (Sangara and Sasembata) designating a *namei* type of relationship between women, used commonly between unrelated married women living in the same village.

Friends as a Distinctive Set

601 The Orokaiva employ certain collective terms to designate the *philia* universe
572 or distinctive parts of it. Thus, the term *mamahane* (father's people) designates the agnatic group, *epehane* (mother's brother's people) the maternal relatives, *aerihane* (wife's people) the affines, and *japehane* (literally, grandmother's people) the father's mother's group. There is, in addition, a term *nameikamei* which comprises the total *philia* universe including an undefined residue of non-kin as well as all the groups listed above. Although Sasembata do not use the term *namei* (friend), *nameikamei* is heard regularly. In neither locality was a collective term found which exclusively comprised the non-kin in the *philia* universe.

The term *nameikamei* certainly covered, apart from the kinsmen, the (Sangara) *namei* category and the *jao*, terms which are both regularly inherited bilaterally. I cannot say for certain whether the *otavo* and (fictive) *simbo* categories would be included in the *nameikamei* group. These terms may be employed in fairly casual relationships, but in time, persons calling one another *otavo* may decide to use a sibling term, thus making the relationship hereditary.

Statistically, non-kin make up only a small part of the *philia* universe. A man might be able to list several dozen *nameikamei* in villages more than three miles from his home, and non-kin would make up only 20 to 25 percent of such a list. (It should be noted that my statistics are somewhat cursory, as I could never be sure that any informant's list was complete.) Visits from non-kin tend to be made at greater intervals than visits from kin and they last a shorter time. One could safely say that non-kin are, on the whole, on the periphery of the *philia* network, as is the case among the Tangu.

An interesting difference between the two systems is that the hereditary relationship which is between fictive brothers-in-law among the Tangu, is between brothers (*apa/eambo*) among the (Sasembata) Orokaiva. It would be considered not only chilly but frightening for an Orokaiva to call his guest friend *dambo* – affine avoidance being stronger than among the Tangu.

Orokaiva Cooperative Alliances and Reciprocating Partnerships

571 Cooperative alliances tend to vary in size according to the purpose of the alliance. In pre-contact times, the village was a cooperative alliance in war-
[621] fare and in large feasts, comprising between six to twelve households. For
[614] bridewealth and death payments, the alliance comprises the plant emblem group (Williams, 1925; 1930; Schwimmer, 1970a), the nucleus of which approximates a four-generation lineage, although it also has other members.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

bond is respected by both sides and utilized for purposes of mediation. The friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted to affinal bonds or lead to co-residence, in which case an entirely new pattern arises. It is possible for migrants into a village to have no bonds other than those of hereditary friendship with their chosen hosts. But once co-residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

Apa/eambo and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds – for two generations senior to ego – but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

(a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs in some ritual features from the hospitality shown to affines and to consanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

host family only. If the guests do contribute, this happens behind the scenes so that the host still appears as the sole donor.

When the guest is an hereditary friend, the host supplies a pig and valuables (such as feathers, ornaments, and nowadays, also money), while other villagers openly present the vegetable foods; the visit is incomplete without such participation. However, the gifts are not presented when the guest arrives. First, he is fed vegetables and meat (this is *pondo* or feast; an ordinary meal contains no meat); he converses with his host and sleeps in the host's house. No mention is made of gifts until the moment of his departure. If he hears any plans of gift-giving, he would be expected to refuse the gifts. The pig is killed secretly, away from the village. At the moment of departure, the guest is confronted with his presents, which he can no longer refuse.

We note that the symbolism throughout is appropriate to the cooperative type of relationship: amicability is not conditional upon the host's prestations; the guest does not desire the host to part with his substance. The host does not give demonstratively but stealthily, emphasizing the intrinsic rather than the extrinsic benefits the partners get out of the relationship. But in the wife's sorrow over the loss of her pig (a metaphoric child; cf. Schwimmer, 1970b), a more complex phenomenon occurs: she does emphasize her loss, though inconspicuously (only a strip of cloth tells the story: she tears off a piece of her skirt and uses it to truss the pig to a stick).

Even without this touch, the departing guest knows that the gifts he has received include some of his host's most treasured possessions. Having been in the position of a departing guest, myself, I am perhaps able to understand how Orokaiva experience it. As I was leaving Sivepe, and after all formal leave-taking was over, an old man from another village came to offer me one of his most valuable birds of paradise which everyone knew to be a source of pride to him. As I was unable (and not expected) to give anything in return at this time, it was an irreplaceable loss. There was no expectation of future gain but only the expression of a bond. These are the symbols they live by; this is how a previous stranger is lodged in the centre of their social world. Thus, it is absurd to call such friendship peripheral. The old man's bird of paradise was anything but peripheral; it was his most prized possession (almost his only possession). It was, in fact, the magic by which the nature of the relationship was transformed from a peripheral to a central one.

Certainly, such a relationship is largely free of kin obligations, almost as free as Burridge suggests with regard to the Tangu. Obligations are not wholly absent, even though they cannot be expressed in a kinship or economic idiom. The bond is based on feelings of attraction towards the personal qualities of an individual and it develops out of various types of shared experience. Unrelated males who are initiated together become *namei*. *Otavo* of all kinds (see section on Simbo, p. 65) may eventually become *namei*.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

431 But recruitment to this status is not restricted to specific categories; any two
572 people can become *namei*. These bonds provide some measure of control
574 over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

572 (b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-
[591] law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated
[582] to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit
[431] each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

123 Unfortunately, a male anthropologist cannot plumb the mysteries of this
572 relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

628 If two unrelated young women of district A are *jao* and marry in villages
572 B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Relationships of this sort are sometimes intertribal as women abducted by enemies were in the habit of maintaining contact with each other, and such contact was inherited by their sons and daughters. When men belong to an *otavo* relationship (see p. 67 below), their wives address each other as *jao*.

(c) *Simbo*. Outside the cooperative group, social relations (even with consanguines) are spoken of as voluntary. This applies especially to distant consanguines and non-resident consanguines. Thus, the kin category *simbo* must contain many members, if purely genealogical criteria are to be used. If two consanguines share no plant emblem and are related through siblings of the opposite sex, they fall within the *simbo* category (the term is not precisely equivalent to cross-cousins). There is no limit on kinship distance, and persons recognized as *simbo* may be cousins several times removed. Often, it is impossible to reconstruct the genealogical connection. Like Orokaiva kin links, this one is simply inherited from generation to generation (bilaterally, in this case).

As one cannot get informants to list more than ten or twelve *simbo* families dispersed in a number of villages, one must assume that *simbo* links, like those of hereditary friendship, are often forgotten. On the other hand, one may always rediscover a *simbo* while on a journey, so that there is a reservoir of unused links that can be revived. In general, however, a relationship can be relied upon only if it is kept alive by periodic contact.

The best translation of *simbo* would probably be: potential preferential marriage partner. While the primary meaning refers to a cross-sexual relationship, the male *simbo* have a special kind of bond which fits neither the cooperative nor the competitive exchange category. Literally, *simbo* is a marriage arrangement made when a girl has gone through the ceremony of menstrual seclusion and *kogumbari*,[8] but is not yet marriageable. Two aspects of the relationship between male *simbo* which are always stressed are the great love *simbo* have towards one another, and the rigorous taboo observances that are customary and strictly enforced.

The taboos resemble those practised between *dambo* (brothers-in-law); this is reasonable because if a man marries his female *simbo*, her brother becomes that man's *dambo*. The same taboos exist against mentioning the *simbo*'s name. All quarreling in the presence of a *simbo* is strictly forbidden. If a quarrel occurs nonetheless and *simbo* orders one to stop, one must obey or else pay a pig as compensation. If *simbo* touches any of one's possessions, one must give that object to *simbo*. A request made by *simbo* cannot be refused. This last rule about possessions and requests does not apply to *dambo*.

8 The term means decoration and is applied to face-painting, dressing the head with feathers, the wearing of shell and bone ornaments, armlets, fur arm pendants, and the like. A boy or girl is first decorated on the occasion of initiation. The dressing up is then usually done by an expert in the clan and paid for by the parents. For details see Williams, 1930; Schwimmer, 1970b, 1970c.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

The Orokaiva say that the *dambo* relation, although similar in many respects, is colder, more formal than the *simbo* relation. If a man dies in war, his *simbo* will die with him. The same intensity of feeling was not expressed about agnates. The feeling is the same where female *simbo* are concerned, except that "women cannot always do what men do." *Simbo* relations were especially important during the period of courting, war-like raids, and bravery in collecting war trophies.

The *simbo* relation resembles in many ways the kind of friendship described by Paine (this volume, pp. 117–37). There is a sense of worth having a *simbo* as a companion. The relationship is oriented towards what is regarded as the great things in life, principally love and war. It does not tolerate bargaining of any kind. It is not competitive exchange because *simbo* are not supposed to compete or exchange; it is not strictly cooperative either, as it does not bear the burdens of everyday obligations characteristic of the domestic unit. The taboos effectively separate *simbo* from each other on this everyday plane. In the mythical texts, we find an aspect of *simbo* relations not stressed in ideology: in them, the *simbo* are forever playing nasty tricks on each other, depriving each other of benefits that are requested, and stealing each other's girls. But in such tales, virtue tends to win in the end. They form a charter, in Malinowski's sense, for the rules about *simbo* behaviour.

In the *philia* universe, *simbo* occupy a special position; namely a rejection or negation of both the cooperative and the competitive modes. The cooperative mode, taken by itself, leads to entropy; the competitive mode, taken by itself, leads to perpetual conflict. The *simbo* relation is a synthesis of the two, as is reasonable enough if one remembers it is symbolically equivalent to marriage, as analysed by Aristotle.

Fictive *simbo* bonds are sometimes created between non-kin who are engaged in an appropriate common enterprise and who desire to express their mutual warmth of feeling. Such a relationship gives friends a kind of explicit claim on each other's property and services. Because of the name taboo which applies loosely in these non-kin bonds, *simbo* tend to address each other by special names known as *simbo* names.

For instance, one morning I was working on a task with a Papuan friend, when a visitor entered with a gift of eating bananas. My friend broke off a twin banana and shared it with me. "Now we are *be pije*" (banana men), he said, explaining that this was one of the *simbo* names most frequently used. If the two friends happen to find a twin areca nut, they become *be sa* (areca men); similarly one finds *be hinga* (pepper men) *be junga* (fig men) and so on. The relationship is extended to the wives of the fictive *simbo*, who become known as *ka pije*, *ka sa*, and so on. Thus, my wife became my friend's "banana girl." While such a relationship was not explicitly described as hereditary, it is easy to see how it can be transmitted from generation to generation.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 602 608 [824] The rejection of both the cooperative and the competitive relationship applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a fruit is a ritual that is sometimes performed between a married couple; for example, when the community has decided to hold a feast. It symbolizes that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 [439] (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 574 Similarly, feasting occasions between villages often result in *otavo* relations. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 For the present argument, it suffices to note that the term *otavo*, which neither implies nor denies the existence of a kin relation, designates an aspect of Papuan social exchange to which previous anthropologists have given most attention. As we have seen, the *otavo* represents only one of three modalities of Orokaiva partnership and the other two can in no way be reduced to it. Even the *otavo* relation is not solely concerned with extrinsic benefits, as a partner is singled out for personal qualities over and above the value of the objects exchanged. The Orokaiva, unlike other New Guinean tribes (for example, Pospisil's [1964] Kapauka) favour diffuse relations for all transactions.

CONCLUSIONS

602 I have shown that Orokaiva have a *philia* system comprising distinctive kin
572 and non-kin membership categories. The *philia* system was found to contain three basic types of relationships: the cooperative alliance, the reciprocating partnership and unions based on a total interdependence of parts.[9] The chart below shows these types represented by the same-generation consanguines and affines among kin and, corresponding fairly closely, among friends.

	Kinship	Friendship
cooperative alliance	*apa/eambo*	*apa/eambo* (*namei*), *jao*
reciprocating partnership	*apa/eambo* (nominal); *dambo*	*otavo*
total interdependence of parts	*simbo*; *ivu/ae*	*simbo*

The fact that these three relationships are found in both categories suggest that friendship can hardly be regarded as a type of relationship with specific role attributes. Characteristics such as detachment from home entanglement, common commitment, perilous causes, reckless mutual support, strong emotional attachment to one another which are all implied in Paine's sketch of modern friendship (this volume, pp. 117–37) and in the Orokaiva *simbo* relationship, do not exist in other Orokaiva friendships such as those between *namei*, *jao*, or *otavo*. The Orokaiva distinctions between the different types of friends have no parallel in Western culture, but they reflect a clear

9 I borrow from Burridge (1969) the term "parts" which is pleasantly ambiguous, suggesting both roles in the theatrical and sociological sense, and moieties or segments in social organization. Burridge does not explicitly set up a third category of relationships containing terms such as husband/wife and *simbo*, but rather describes an "ideal" of relationships when a full equivalence of prestations (*mngwoingwotiki*) is achieved. This state of equivalence must be reached by two families before they enter into a marital union. The notion of "total interdependence of parts" (see Schwimmer, 1970b; 1970c) is clearly of the same type.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

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574 VISITING AND HOSPITALITY--extent and occasions of visiting; social relationships characterized by reciprocal visiting; reception and entertainment of visitors; informal and formal hospitality; offering of food and drink; feasts and parties; etc. See also:

Drinking	27	Travel	484
Recreation	88	Banquet speeches	544
Eating	394	Wedding feasts	585
Gift giving	421	Mortuary feasts	785

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all.

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor.

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills.

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 phase would last about two days. Villages where I made very brief visits never
123 passed beyond that stage, thus remaining in my memory as exceptionally endearing in their generosity. Before I understood the system, I harboured romantic notions of going to live in these villages. In the second phase there would be frantic *hoija*. Everyone brought gifts, asked for tobacco, salt, kerosene, and rides in the car. People appeared to be most hurt when I would not drive into Popondetta every day, and take the whole village with me. Whenever I was offered any gifts or service during this period there would be an immediate demand for some desired benefit.

436 After some weeks, this rather aggressive barrage diminished. I found myself
123 with a number of regular exchange partners who brought me what it was presumed I needed and who asked me for more or less standard return benefits.

431 Two sorts of partnership developed: one type of partner expected a return gift immediately upon bringing me his own; the second type made gifts for which he asked nothing – they were represented as gestures of pure affection. Yet in the future an occasion would arise when I would be asked for, or would spontaneously offer, something in return. But this second type of partnership was far more similar to the kind of gift exchange the village people had among their fellow villagers or close associates. As more and more people shifted from the first to the second type of partnership, I could see something like a genuine exchange network building up. People trusted me enough to allow me to be in their debt for a while. I was thus approaching the stage when I would be regarded as a desirable exhange partner, or, to put it in Orokaiva terms, as a man of some moral virtue. It seemed to me that it was on my behaviour as an exchange partner that my status would ultimately depend.

431 Most of the significant events in which the village was involved were also concerned with exchange. While marriages, deaths, feasts and initiations were all occasions for ritual and magic, the gifts always loomed largest in everyone's interests. It would usually take at least a year, but often far longer, to accumulate the gifts needed for such occasions. During this period members of the family, local clan branch or village (whichever was the donating group) would be constantly on the lookout for money or gift objects that could be stored up. People would go looking for jobs. They would keep unused some
[628] clothing they had been given by a relative. Whenever a visit outside the village
[574] was contemplated, an essential part of the preparations was the getting together of the gifts that would have to be taken. Or when a visitor arrived, there was stealthy activity in the background to prepare the gifts without which he would not be allowed to leave. The size of the gifts would always be carefully planned, in accordance with the importance of the visit, the extent to which it was thought politic to do homage, and the availability of supplies. But the making of the gift would always be done in so casual a manner that one might easily believe it was totally spontaneous.

This manner must be affectionate and humble. But the wise man, in making a gift, puts his partner in his debt as much as possible without suffering undue expense, while at the same time enhancing his own status. At a later time, he will use his status as creditor to the best advantage. His concern is to foster a social relationship while at the same time seeking the acquisition of some scarce resource. Social and economic ends are pursued simultaneously. Thus Melanesian

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that it be there for his mother and father to eat. As he slept that night before the feast, Ombota stole the food. That man's garden was empty. He had no food, so he had nothing for the feast. Therefore, looking for food, he had stolen that taro for his mother. 773

The day broke, the feast was in progress and Gasi's mother and father were very hungry. Then Gasi looked about for them. Straight away his parents asked: 'Where did you prepare food for us? We are now very hungry.'

That boy asked in reply: 'Where is the taro I fetched for you?' – 'We have no taro and we are very hungry.' Upon returning inside the house to look, Gasi then saw that the taro had gone. So he went round the houses to look for that taro and saw it lying in Ombota's house.

As Ivi and Gasi quarrelled with Ombota, the mother and father went down to Erehata creek, taking with them their entire small house, as it stood on its posts. They floated down that stream until it met the river Embara. The woman's name was Jomiko and her husband was Sirere.

They stopped when they had reached a place called Sorovi-Ereremba. Meanwhile their sons, about to give the feast, inquired where their parents were but could not find them. When the battle (*isoro*) was over, Gasi and the oldest son, Havururе, went away to find their mother and father. Upon arriving at the place called Sorovi-Ereremba, they saw them where they had come to a stop. Their parents told them: 'We are staying here but you must go back and feast.' The sons then went back, but their mother and father stayed behind.

At that time, their parents' words were as follows: 'We are staying here. In bad times you will hear no speech from us but if times are good, and you intend to hold a feast, then listen to our speech.' Thus they spoke.

Sirere turned into a stone which is still there today. In time of hunger we do not hear his speech. In good times, when a feast is about to be held, we hear his speech.

My small tale about feasts is finished.

Before discussing the meaning of this tale, I should explain briefly some ethnographic details. It is customary to hold a feast on the occasion of a departure, so the brothers' decision to hold one agrees with modern custom. On the other hand, it is irregular indeed to hold a feast unless it is known in advance that there is enough food for all the guests. A feast is always preceded by elaborate and highly ritualised checks to make sure that the supply of taro is abundant. We may regard the tale quoted here as a mythological charter for these ritualised checks which are discussed in detail in Chapter VII. It is still usual, however, for guests at a feast to be fed in the individual households where they are staying. Thus the taro used for cooking would be kept, as in this tale, in individual homes. The gift taro, laid out on platforms, falls in a different category. 773 574

The house in which the parents floated away must be understood as the prototype of the feast house. This is a small structure placed at one end of the central plaza (*aruha*) of a village. It is built a few weeks before the feast and it is in front of and in the feast house that rituals are performed during the whole of the period that ceremonies last. We may take it that Jomiko and Sirere are 773 574 345

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 574 demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a person occupying the office of feast leader who is charged with the ritual as well as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773
574
728

> other... Two or three from either side would spend a few days and nights with the opposite party, and after this the two tribes would meet in armed force on some common ground between their territories to exchange gifts of pigs and ornaments.... (1930: 166)

Williams emphasises that such *peka* were precarious and often mere stratagems for killing more enemies. Nonetheless, feasts were held at intervals, former enemies were invited to them, and when they did happen the slate of old hostilities was wiped clean. No doubt, hostilities of the same kind would often occur again once the feast was over. Nonetheless, if there was no treachery, the feast was an occasion when the estrangement existing between social groups could be overcome in a communion ritual in which primeval amity was restored.

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The notion of the feast as communion ritual is most clearly stated in a series of myths, of which the most widely known is that of Totoima. Some of the most celebrated stories about Totoima – his practice of killing men and eating them while wearing pig's tusks, and of killing and eating his children as soon as they were born – are reserved for other chapters of this work. All the stories about Totoima, however, have a similar ending: by some trick (his son stealing his teeth, his son feigning death and concealing a spear, his wife or sister raising many children out of blood from a cut finger so they could murder him) Totoima was killed in revenge for his iniquities. In many of the versions, which we shall discuss in Chapter VII, Totoima is neither fully a human being nor fully a wild pig but rather an undifferentiated pig-man partaking of the nature of both.

Totoima's body was cut into the joints into which pigs (and presumably slain humans) were traditionally subdivided prior to being shared out between guests at a feast. Those who ate the joints multiplied miraculously so that their descendants peopled practically the whole of the Northern District. Usually, at a feast, the joints would be given to the heads of different nuclear or extended families. In this case, the family head who received the right fore-leg became the ancestor of all the Mambare people; the recipient of the left fore-leg became the ancestor of the Opi people; the right hind-leg became Sangara, the left hind-leg Isivita, the head became the coastal people, the back Kokoda, the belly Togahou and the 'liver' Angerita. One might say therefore that Totoima was the primal ancestor of all these warring tribes, and as Williams shows (mostly in his unpublished manuscripts) all the tribes listed here have retained some similar story.

But Totoima was a primal ancestor in a special sense. Strictly, in most of the versions, he was not the sire of the people who ate his meat. He is not, therefore, an ancestor in a genealogical sense. But it was his meat that miraculously caused these small families to multiply into tribes. Thus it was his strength, his *ivo*, entering the bodies of those who ate him, which really caused the tribes to multiply. The tribesmen became the inheritors of his *ivo* and it was from this that their power arose. Totoima was their ancestor in the sense that they had his *ivo*. We are thus led closer to the underlying pattern of Orokaiva political philosophy. As a result of the primal quarrel, the affair of the stolen lashing, social groups were separated by a permanent *isoro*. At the same time they are bound together by a primeval communion, the common eating of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

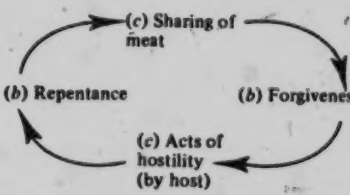
Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 571 no quarrels occur (Orokaiva do not seriously envisage such a relationship), but one where quarrels are resolved before they have gone too far. The Orokaiva would feel more affinity with the sociology of Simmell and Blau than with that of Weber and Parsons. A bad relationship is one where the cycle *reconciliation – quarrel – reconciliation* is interrupted, and the relationship is broken off, or the quarrel intensified until one of the parties resorts to sorcery.

829 571 We may express this view of social relations diagrammatically in the following simple model, where (*a*) stands for exchange partners, (*b*) for objects of exchange, and (*c*) for mediating elements.

574 MODEL 1



This model, first of all, contains three binary oppositions. The exchange partners are represented as opposed to one another. This corresponds to empirical reality because at any feast the persons present always belong in one of these two categories. Secondly, there are two objects of exchange between which a conversion takes place. One partner gives repentance and receives in return forgiveness. I have already pointed out that in practice both parties may feel guilty so that both may be offering repentance and forgiveness at the same time, but this is not essential and not included in the model. Furthermore, I have assumed that the host is the repentant party. This assumption is made because the person who gives the feast demonstrates thereby that he is more anxious than the other to restore the relationship. It is he, therefore, who is playing the humbler role and this is expressed in the model by making him the 'repentant' party.

It will be clear that an expression of repentance does not necessarily imply that the other party will offer forgiveness. A man may invite another to a feast and the other may refuse to come. In that case there has been repentance but no forgiveness and no feast. The exchange cycle has been interrupted by the other's refusal. But if the guest comes, he indicates that he is at least willing to forgive. Even then, the transaction may break down. There may be angry words between host and guest; the guest may expect some additional reparation and not be satisfied with what he gets. The ideal model of Orokaiva social relationships, however, assumes that the conversion will be successful.

The third binary opposition is between the mediating elements. I have already said that Orokaiva social relations move from a state of permanent strife marked by acts of hostility to temporary reconcilations mediated by the common eating of meat. There is justification for treating these concepts as binary oppositions. I have demonstrated that the common eating of meat is a mediating element because without it no exchange of repentance and forgiveness takes place. It

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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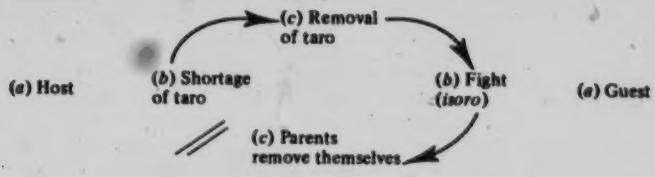
goes without saying that acts of hostility are also mediating elements as, in their absence, there would be nothing to repent or to forgive.

In addition to three binary oppositions, the model contains a cyclical movement. One may start reading the diagram at any point on the cycle. For instance, one may start with acts of hostility, *isoro*. (According to Orokaiva philosophy, such acts require no special explanation.) These are followed by repentance, shown by the host in inviting the victim of these presumed acts of hostility to a feast. The sharing of meat follows, after which the guest, either in words or gesture (and probably by subsequent actions), indicates that he has forgiven whatever he had been angry about. Then, sooner or later, social relations lead to new acts of hostility and the cycle starts again.

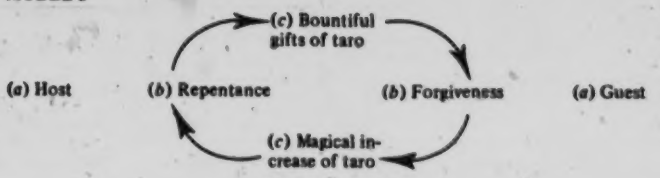
While this model expresses adequately the Orokaiva view of social relations, we must admit at once that the feasting myth from which it was derived communicates a more complex message than this. It deals, in fact, with two exchange cycles at once, but overtly the myth does not mention the sharing of meat at all. On the contrary, it is concerned only with the sharing out of taro. The exchange partners are again host and guest; the exchange, as told in the myth, is between a shortage of taro provided by the hosts and a fight provided by the guests. The mediating elements are: the removal of the taro by a thief (arising out of the shortage; bringing about the fight) and the removal of the demigods responsible for the feast. The exchange cycle created by these elements reproduces the sequence of the myth:

MODEL 2



It will be noticed that the exchange cycle is incomplete. In the next section of this chapter, I shall show that exchange cycles in myths are always incomplete, and I shall explain why this is a special characteristic of myths. Indeed, the chief message of the feasting myth is that the incomplete cycle shown above should *not* be repeated; instead it is the following cycle that has become institutionalised:

MODEL 3



5: Schwimmer E-4,5 (1966-1967) 1973
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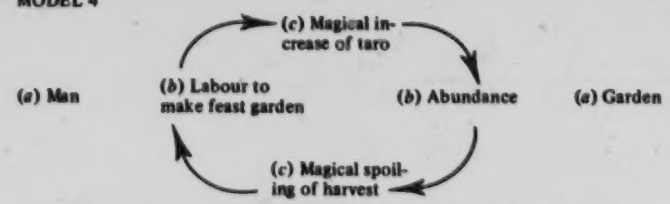
Mountain Orokaiva

829 571 574 [243] [789] This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

574 182 [243] [789] [728] In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

574 243 In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

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OJ23 Orokaiva OJ23
Mountain Orokaiva

guarantee success. The transaction between man and his garden must be mediated by the holding of a feast that will dispel noxious influences by which sorcerers have, in the past, spoilt a man's garden. After the feast, the garden will produce abundantly, but this abundance will not last. In fact, the resumption of social relations will lead naturally to hostility; again sorcery will spoil the harvest. Sorcery mediates between man and his garden to impel the gardener to make a new feast garden; thus the cycle is repeated.

This model (No. 4) expresses a point to which my Orokaiva informants returned time and again. The most important benefit an Orokaiva expects to get out of a feast is not improved social relations but a better taro harvest. The rituals of repentance and forgiveness which entered into models 1 and 3 are magical performances with improvement of the harvest as their ultimate purpose. Thus it is wise not to restrict our study of exchange to the social and economic levels only, because the basic transaction may occur on a quite different level, in this case between man and his garden. The method of analysis I am proposing here has the advantage that it moves with equal ease on all levels at which collective representations exist.

4. *The Starting Mechanism*

In this chapter I first sketched Orokaiva social philosophy; I then abstracted some simple diagrams to represent this philosophy. Some elements of the exchange cycles represented by these diagrams are found in all or most cultures. All cultures have transactions between hosts and guests; all agricultural societies have transactions between man and his garden. Exchanges of social objects such as repentance/forgiveness, labour/abundance arise out of universal tendencies of man or nature. There is, however, nothing universal or logically necessary in the particular mediating elements appearing in these diagrams. Meat and taro, good and bad magic, *peka* and *isoro* – these are all peculiarly Orokaiva means for the mediation of social exchange. When Homans and Blau developed their (sociological) theory of social exchange, they gave no systematic attention to mediating elements, and rightly so, because their interest was universal laws, and mediating elements are never universal. However, for the anthropologist, who usually treats cultures as a significant variable, the mediating elements are of special importance.

Nonetheless, even if particular mediating elements are not universal, the use of mediating elements is a universal characteristic of social exchange. Sociologists, by ignoring this fact, have occasionally found themselves in difficulties, as for instance in their discussions about the 'starting mechanism' of social exchange. Gouldner posed the problem clearly in his essay on 'The Norm of Reciprocity' (1960: 177):

> Let us suppose two people or groups, Ego and Alter, each possesses valuables sought by the other. Suppose further that each feels that the only motive the other has to conduct an exchange is the anticipated gratification it will bring. . . . At least since Hobbes, it has been recognised that under such circumstances each is likely to regard the impending exchange as dangerous and to view the other with some suspicion. . . . Thus the exchange may be

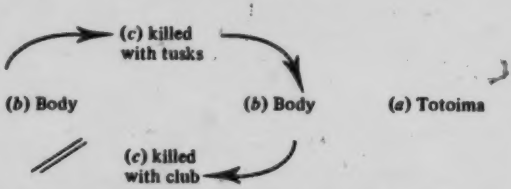
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

776 son (a man) killed his father with a club, a human weapon. Furthermore, the
773 order of superiority was reversed: it was now no longer man who was killed by a tusked being; man became the killer, pig became the quarry.

171 From this analysis it would appear superficially that it is not Totoima but his son who ought to have been revered as the *dema*. It is he, after all, who has effected the differentiation between man and pig, who has provided man with pig as his quarry. But this is not how the Orokaiva reason. It is the same with the *dema* Pekuma to whom the technique of meat-roasting is ascribed. Pekuma is not the man who invented, by his own ingenuity, the technique of meat-roasting. He was the victim of another man who played a trick on him, dropped him in a hole, and roasted him. He tasted delicious. The Orokaiva remember Pekuma because he *was* the first roast meat and Totoima because he *was* the first quarry. The gift for which they are celebrated is not their inventive ingenuity but their body, in the form of food. Like the victims of cannibal raids, to whom Jensen devotes a lengthy discussion, the *dema* release their spirit power by the deed of being sacrificed, and this spirit power then becomes available to the killers and to all men.

We have seen, however, that the killing of Totoima was not an isolated event; it was done in response to Totoima's own murderous activities. As Jensen points out, in the life history of the *dema* some fault usually occurs, either committed by the *dema* or someone else, which is represented as the cause of death. We may thus, to some extent, view *dema* myths as a special kind of truncated exchange cycle. Totoima's story, for instance, might be represented in the following diagram in which Man and Totoima are the exchange partners, both of whom offer their body as an object of exchange (or sacrifice):

MODEL 5



In this as in all myths, the exchange cycle is incomplete, as the completing of the cycle in the model would imply that the cycle is intended to repeat itself *ad infinitum*. But the whole point of the myth is that after Totoima it is no longer normal for man to be killed by a pig's tusks, but that pig becomes the normal quarry of man. The world, indeed, has been completely transformed as a result of pig having become man's quarry. Man is now able to multiply rapidly, deriving a great new strength from the pig-meat he is able to acquire. The exchange cycle shown in model 5 has therefore, since that time, been replaced by institutionalised feasting where pig sacrifice appears as an essential mediating element (model 1).[A]

773 We may therefore regard truncated exchange cycles such as are shown in
● 574 models 2 and 5 as the starting mechanism of Orokaiva exchange. To put this more concretely, let us consider the large platform heaped with taro that is

A [See Category 574, p. 58--Analyst]
B [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 574, p. 59—Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

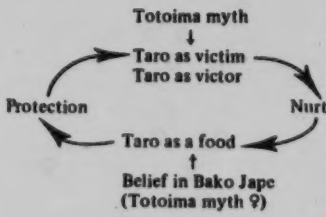
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5)[A] but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VII

PIGS

1. *Introduction*

262 While taro exchanges serve to maintain the basic social network used in
●574 transactions, the pig is the most common object of mediation in critical
431 situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially
[146] suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves
[773] a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

431 But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more
[773] than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

431 In treating pig as an object of mediation in exchange, I shall need to
825 demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

[571 The data show that pig sacrifices may be regarded equally well as rites of
789] communion and as rites of expiation. The key to their significance, however,

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Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

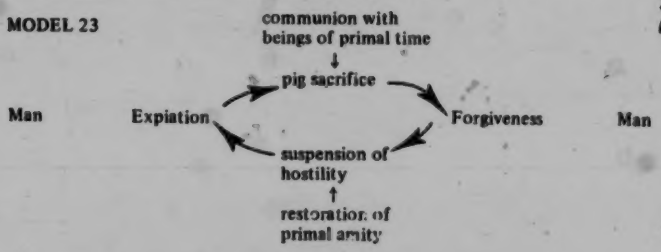
This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

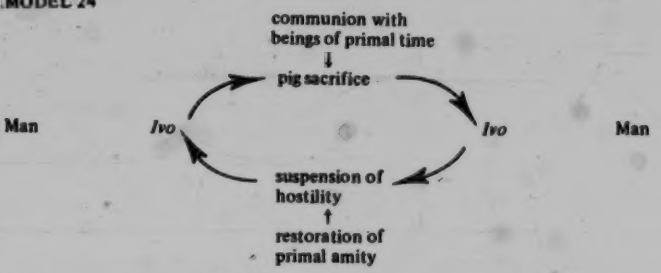
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24



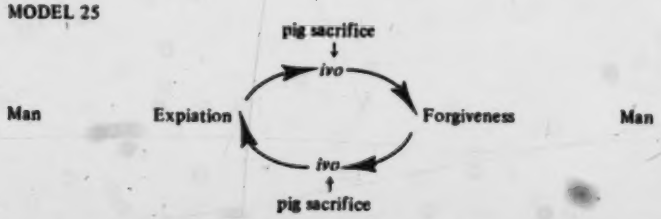
In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly towards the success of the feast. Though the *pondo kiari embo* tends to be a
[554] man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know
431 just what medicine is used on them) are distributed by the feast-giver to be
276 shared, after the meeting, between the men and their wives. The men are to ask
562 their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikuri*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the [769] sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by [614] the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

574 621 [789] [754] crop failure at Hohorita would be explained as resulting from sorcery inflicted upon the people collectively by a sorcerer from one of the traditionally hostile villages near which the Sangara have been forced to live since the eruption. The sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 628 437 572 Yet it is clear, from the evidence presented here, that a feast does not serve to set up warm and affective relationships between collectivities: the host and guest communities, as such, do not actually eat together or converse with each other closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 628 778 While the evidence presented above is consistent with model 25,[A] that model does not account for all the facts under consideration. If we take a synchronic view of the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

A [See Category 574, p. 148—Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The evidence presented in the previous section shows that we are in fact concerned not with one exchange cycle (i.e. model 25) but with two. The second cycle represents the exchange of sanctions which preceded the feast. Though our data with regard to both the Togahou-Sivepe and the Sangara-Koipa (Isivita) wars are rather fragmentary, we do know that there were a number of raids, the last of which are still known to informants today and date back no more than 60 years. Each side is reported to have raided the other; there were killings; there was cannibalism; women were abducted. Sangara admits having abducted Isivita women but denies that any of its own women were abducted; abductions between Sivepe and Togahou can be shown to have been mutual. The last killings were too long ago for me to be sure which side had made the last raid and which side had, in the finish, a favourable tally of killings. Sivepe and Hohorita both claimed to have come out on the winning side, but I had no opportunity to check the evidence with Togahou and Isivita. If we accept the Sivepe and Hohorita versions, both these villages were in the unpleasant position of having enemies who were still seeking revenge.

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Due to the restraints of the *pax Australiana*, this revenge could not take the form of an armed raid, but sorcery was still a possible form of retaliation, as the Australian authorities could not easily detect this. Both Sivepe and Hohorita might therefore justifiably fear sorcery from their old enemies, supposing they wanted to even the scores. There is no evidence, to my knowledge, that either Togahou or Koipa had such ideas in mind, but whenever misfortunes happened to Sivepe people in Togahou, or to gardens in Hohorita, the thought of sorcery used by old enemies seemed reasonable to the Orokaiva. We may represent the exchange of sanctions, prior to the feasts, in the following diagram:

[154]

MODEL 26

In order to account for pig sacrifice, we require both model 25 (showing the social exchange achieved by the feast) and model 26 (showing the circumstances which made Hohorita into an 'offender' and Koipa into an 'offended' party). In addition, we need to explain why the groups involved decided to adopt new objects of exchange in their social relationship. Until recently, the two sides exchanged enmity which they mediated by various penalties such as raids and sorcery. At the time of the feast, however, we find the same two parties exchanging expiation and forgiveness. It is possible to invoke a number of historical contingencies to explain this change. Informants liked to tell me that the change was due to the effect of the *iji eha*: the fact that everybody was baptised and moving into a new age when old enmities should be forgotten. I

A,B [See Category 574, p. 148--Analyst]

574 628 could not help noticing the connection between the reconciliation and the simultaneous fear of sorcery to which I have already referred. But perhaps neither historical explanation is necessary.

721 728 It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1). The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 602 578 754 The model applies not only to inter-village relations but to all social relations in general, consanguineal and affinal relations included. Quarrels between consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58--Analyst]

[TEXT CONTINUED ON PAGE 158]

Pigs

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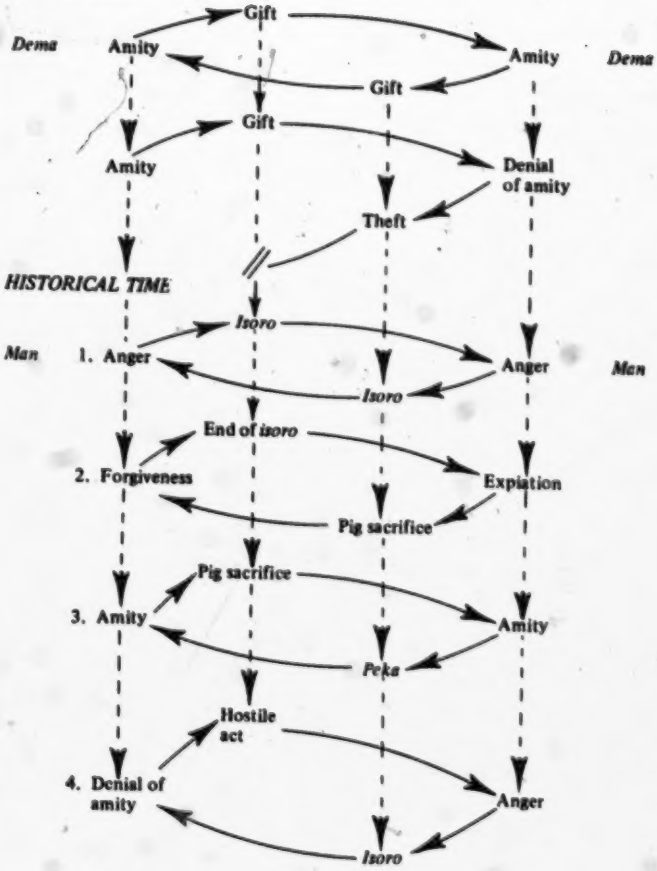
MODEL 27



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the [252] squeezed flesh produces coconut cream in which taro and delicacies such as river [262] crabs may be cooked. Young coconuts are cut open at the top and used for a [272] refreshing drink. Coconut is reserved for two kinds of everyday food gift: [431] cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

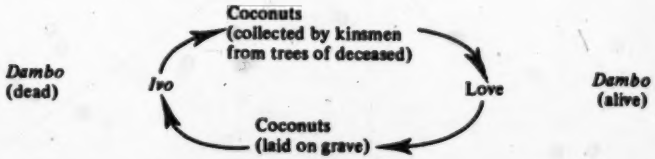
[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it [146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut [231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance 778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by [881] the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

461 regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.
**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

527 A tendency for men to regard the season as a time for renewing social contacts became more apparent in the week of the New Year. 574 Although New Year's day was not specifically observed, the men who 484 were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between villages in the area appears to be usual at this time of the year. [438] Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationship to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

718 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [713] [621] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt Lamington (see Secs b. and c. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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1 Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

2 Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterised as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

Other informal transactions involving specific reciprocal obligations include the exchange of labour services, gifts of animals killed during a hunting expedition and more or less casual transactions with non-residents.

Formal exchanges operate on a larger scale than the daily or casual transactions. Crocombe (1966:71-2) has listed the main Orokaiva traditional ceremonies ('pondo' or feasts) as marking initiation, marriages, deaths, enhancement of prestige, land transfers, the re-establishment of peace after a quarrel and the lifting of prohibitions between a man and his mother-in-law. The first and last of these have become very rare. In addition to the traditional ceremonies, parties may now be held to mark Christmas, Easter, the saint's day of the local church, the opening of a school or aid post, and birthdays.

A feast provides an opportunity for settling many obligations which may be quite irrelevant to the ostensible purpose and may not concern the person or group actually 'giving' the feast. It may involve one or several villages or descent groups. The feast foods are almost exclusively village-produced, although small amounts of storebought goods, particularly rice, tinned fish, bread, tea and sugar, are becoming more common. Some feasts, such as those marking the end of minor disputes between individuals, are essentially exchanges and in themselves take little time; others include much ceremonial and may last longer than twenty-four hours.[1]

Parties seldom involve reciprocal exchanges though at some large ones traditional obligations to other participants may be settled. Invitations are usually given on the basis of residence near the location of the party rather than of membership of a particular descent group. Most take place during the afternoon and evening and non-traditional dancing to guitar accompaniment may continue throughout the night. Generally, only the host's household is involved in much preparation for a private party but other men's wives will help prepare food, for which some return is expected. Often only a small number of those attending receive a share of food in the customary manner. Others may participate in the dancing at will, but, if they wish to eat or drink, must purchase food or alcohol. Behaviour at such parties is largely imitative of European practice, to the extent that at one wedding party observed the bride was presented with a quantity of old plates, dishes and cutlery by other villagers.

In addition to these exchanges with kinsmen, co-residents and neighbouring villagers, there have been long-established trade links between the inland and coastal people. This trade originally

[1] In the past they sometimes lasted several days.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated, together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. In fact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

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the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Hosou and Haheno often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

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574 entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

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464 Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

164 The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

512 Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed 437 oaisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by 574 the men.[1] They are normally characterised by the participation of 431 agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and [578] hostile nature made in connection with unresolved disputes such as [574] encroachment on land, or the stealing and unauthorised killing of [614] pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, 572 but not normally reciprocated, is known as umbare. Such gifts are 574

[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.26--Analyst]

431 572 574 only made with people from distant villages, who may or may not be kinsmen, and they always involve a visit to the party making the gift. This may be followed by a return visit at a later date but there is no necessary sequence or routine. Gifts made to relatives coming from a considerable distance to attend a mourning and those received as the specific motive for a visit (as in the case of Orokaiva going to the Managalase to receive di (feathers)) are both categorised as umbare.

121 Such exchanges and transfers of goods can be seen to operate within clearly-defined social contexts. Sahlins (1965:139) notes that 'A material transaction is usually a momentary episode in a continuous social relation'. He continues,

> A specific social relation may constrain a given movement of goods, but a specific transaction - 'by the same token' - suggests a particular social relation. If friends make gifts, gifts make friends. A great proportion of primitive exchange, much more than our own traffic, has as its decisive function this latter, instrumental one: the material flow underwrites or initiates social relations. Thus do primitive peoples transcend Hobbesian chaos. For the indicative condition of primitive society is the absence of a public and sovereign power: persons and (especially) groups confront each other not merely as distinct interests but with the possible inclination and certain rights to physically prosecute these interests. Force is decentralised, legitimately held in severalty, the social compact has yet to be drawn, the state nonexistent. So peacemaking is not a sporadic intersocietal event, it is a continuous process within the society itself....
>
> Even on its strictly practical side, exchange in primitive communities has not the same role as the economic flow in modern industrial communities. The place of transaction in the total economy is different: under primitive conditions it is more detached from production, less firmly hinged to production in an organic way. Typically, it is less involved than modern exchange in the acquisition of means of production, more involved with the redistribution of finished goods through the community. The bias is that of an economy in which food holds a commanding position.... It is the bias also of a domestic mode of production.... It is the bias of a social order in which rights to control returns go along with rights to use resources of production, and in which there is very limited traffic in titles or income privileges in resources. It is the bias, finally, of societies ordered in the main by kinship. (Sahlins 1965:139-41)

Individual exchanges are not, therefore, spasmodic acts. Together they form a system founded on the network of social relations. This

of each in the food pattern, the proportion of total production of goods entering into the distributive system varies considerably, being related to both its degree of scarcity and the circumstances of the exchange.

Taro, being the staple food, is normally readily available to all households from their own resources and it is estimated that only about 4 per cent of total production enters into distribution.[1] Of this figure over half (56 per cent) circulates within the village, usually in the form of individual plates of cooked food distributed after the evening meal is prepared. These evening distributions are initiated by the first to prepare their meals, and offered to those returning later to help allay hunger until their own food is ready. While the principle of reciprocation applies on such occasions individual exchanges are not accounted for. This applies equally to areca, lime and pepper which are casually distributed at gatherings.

Of foods which are resorted to in the dry season, particularly sago and breadfruit, a much higher proportion of total production enters into circulation. Well over half the sago produced is distributed, specifically to compensate for assistance rendered in its working, but more generally in recognition of the general scarcity of food and of an obligation among those endowed to share their stocks with the less fortunate. Even in such instances, however, the manner in which it is distributed stresses particular relationships.

Custom requires that an individual should not eat the meat of a pig which he has reared himself or of wild game which he has caught. Consequently virtually all meat 'produced' enters into the exchange network, the only observed exception occurring when a pig breaks into a garden and the owner endeavours to kill it himself. Even in

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[1] This figure was determined by using yield data gathered in Sivepe during 1961-62 by the FAO Survey of Indigenous Agriculture. It was estimated that 159 persons produced 298.1 tons of taro in one year from 51.4 acres. Assuming the acreages to be constant the FAO survey estimates an individual requirement to be 0.34 acres per annum and Rimoldi (1966:20) estimates 0.36 acres - a yield of 5.5 tons per acre is obtained. (This includes area under other crops, but taro accounts for 80 to 90 per cent of the total acreage and it is assumed this proportion is constant.) Thus one individual produces 1.87 tons from 0.34 acres.

Using the ratio 70:36 of adult to individual acreage (Rimoldi 1966:19) an adult produces 3.63 tons from 0.66 acres. The present survey covered 4,741 adult-days (man-days) or 12.9 adult years. A yield of 46.8 tons was therefore obtained. During the same period 1.9 tons of taro - 4.1 per cent of total production - was disposed.

[TEXT CONTINUED ON PAGE 187]

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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[1] For a detailed account of the activities of these two men, see pp.117-21, 126-7.

[2] See pp.114-17.

A, [See Category 554, pp. 117-119; Category 461, pp. 120-121; Category 512, pp. 126-127--Analyst]
B, [See Category 461, pp. 114-117--Analyst]

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] -
[574] surpluses (and their counterpart, shortages) are frequently the result as much of chance as of policy. Thus, near the end of the
[431] dry season a settler held a feast at short notice to mark the end of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence
221 sector shows a pronounced seasonality (see Table 11:6). This is largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A
A,[See Category 512, pp. 166-167--Analyst]

many of whom moved their place of residence some three to five miles inland from the coastal villages along the Gona-Popondetta road during 1963-4, bringing them nearer to the larger Popondetta stores (see preceding article in this bulletin).

The rate of spending was remarkably constant throughout 1962 (the only year checked) except in December when 16 per cent of annual turnover was handled. Other months accounted for 6 per cent to 9 per cent of the annual turnover. The high figure for December was partly due to a shareholders' rebate being distributed on 12 December. Much of the money given in rebates was seen by the author to be immediately spent again in the store. Also, many men who worked outside the village returned for holidays at Christmas time with appreciable sums of money. Finally, the European custom of holding Christmas parties had been adopted by the Yega, resulting in increased spending on food.

The Yega were still predominantly subsistence cultivators with very limited financial resources. The co-operative store served a useful purpose in providing them with easily preservable proteins as well as a range of other foods, clothing, consumer goods, tools and domestic equipment.

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[504] In pre-European times, according to present-day informants, the most important feasts held by the Orokaiva people were associated with initiation, marriage, death (though apparently not birth), and the enhancement of prestige. Feasts were also held to mark the transfer of land, the re-establishment of peace between persons who had been quarrelling, resumption of residence after a prolonged absence, and the lifting of prohibitions between a man and his mother-in-law.

[504 108] It is impossible to know with any certainty the scale of feasting prior to European contact for, though a detailed study of these people was made in the late 1920s (Williams 1928 and 1930). Government patrols had brought tribal fighting to a halt some years before. It is therefore quite likely that, with less time taken up in warfare and greater freedom of movement assured, the feasts and ceremonies of that day were more elaborate than those of the pre-contact era.

While feasts are still held today, the relative emphasis given to each category has changed considerably. Feasts associated with initiation are held on a greatly reduced scale and often omitted altogether, but those relating to marriage and death remain important. The taro festivals, the main function of which appears to have been the enhancement of prestige, are still held in some [606] places but have been abandoned in others. The other feasts listed above are still held occasionally, with the exception of those relating to the lifting of prohibitions in relation to mothers-in-law.[1]

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[1] Since the above was written, such a feast was held by a family from this village but now living on a government resettlement [541] scheme about two miles away. The atypical circumstances of the new residence pattern may have caused the revival of the feast (known as peikari) because when the daughter of the settler married, the new husband was brought to live with them to help with cash cropping. This is contrary to the customary pattern of virilocal residence. Living in such close contact with his mother-in-law probably made the highly formalized relations between them difficult to maintain. The feast was thus invoked to sanction more relaxed relations between them.

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [177]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 431 602

574 The two latter contributions require further explanation. Of
431 the 70 pounds brought by the wife's kin, 40 pounds were given by
602 a parallel cousin whose husband recognized a distant relationship to the host, and who had worked as a mission teacher with him. The remaining 30 pounds were given by a clanswoman (whose exact relationship we did not determine) who lives in a village a few minutes' walk away, and who frequently visits the host's wife. This woman's husband recognizes a distant relationship to the host. Of that given by the daughter's husband's relatives, 60 pounds were contributed by a mother and daughter whose husband and father had spent his life as a work associate of the host in a neighbouring village. The remaining 20 pounds were brought by a clanswoman whose kinship link was reinforced by her residence in Inonda and her marriage to another relative of the host.

With the exception of taro supplied by the host and his wife jointly, all taro was brought by females. They were all kin of either the host, his wife or his eldest daughter's husband. But of the many relatives of these people resident in the vicinity, only five contributed. Three of these had work associations with the host and the other two had subsidiary kinship links to the wife as well as being coresident or nearly so, and enjoying frequent social interaction with the host and his wife.[1]

574 In former times, we were told, the men now engaged in paid work
198 would have gone hunting to obtain meat for a feast, and would have constructed more elaborate shelters and platforms as well as erecting poles for the stacking of food contributions in such a way that they could be measured and compared. The role of the men in the preparation of this feast was negligible by comparison.

574 The host intended to kill a domestic pig for the feast but it
431 escaped after being shot. A European contractor whose labourers had been invited to attend gave a pig which he had purchased for $30. The only other fresh meat was a large hornbill donated by the leader of the clan with which the eldest daughter's husband lived.[2] These two men have engaged in many exchanges over the past few years.

574 Of a total of $9.83 worth of store foods supplied, $2.60 worth were purchased by the host himself from his savings, $7.08 worth

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[1] In addition to the above food, the husband of a daughter of the host used the occasion to give a pig and vegetables to one of his wife's mother's clansmen who had not shared in the bride-wealth previously given by the husband for his wife. The gift was taken back to the donee clansman's village for distribution.

[2] This man does not live with his own clan, but with that of his classificatory brother's wife.

by the eldest daughter's husband from his current earnings, and $0.20 worth by the husband of another of the host's daughters from his current earnings. The only other foods contributed were three bunches of bananas and sixteen lengths of sugar cane by the host and four bunches of betel nut and one bundle of betel pepper by the eldest daughter's husband and his son.

It is apparent that the men's traditional role of supplying fresh meat is being replaced by an obligation to supply store foods. In addition, informants confirmed that the range of men participating in the contributions had decreased markedly. The reason for the large donation of store foods and betel nut by the eldest daughter's husband was that as his family had all been killed and his property destroyed in the Mt Lamington eruption, he had not paid any bride-wealth at the time of his marriage.

A blackboard was displayed bearing a notice to the effect that all persons who were in receipt of wages were expected to contribute fifty cents and all others twenty cents. The host sat at the end of the food table and collected the cash (while a research assistant recorded the details of contributions and contributors). While most visitors expected as a matter of course to make some offering, they were not prepared for a fixed fee. There was therefore some delay and it was not until it was announced that those who did not have the full amount could contribute whatever they had that the people could be persuaded to make their contributions and partake of the food. Over half of those present had no money and consequently refrained from eating, though some close relatives who did not contribute were fed in the background. Several visitors privately expressed resentment at being asked for a money contribution.[1]

Contributions were received from 64 persons and ranged from eight cents to a dollar. Of a total of $12.15 received we were able to account for $10.88. Those who had brought food did not bring money with the exception of the labourers from the contractor's camp on whose behalf their employer had contributed a pig, and the husband of one of the host's daughters (who had given twenty cents worth of food) who gave ten cents in cash. Over half the money ($5.78) came from 31 persons who had no kinship ties with this village but were employees of European planters and of a contractor in the area or were indigenous settlers from a government resettlement scheme nearby. Of the balance, $2.10 was given by 15 relatives of the host from three different villages and

[1] The labourers and settlers had been specifically invited to attend, but I am not aware of the extent of invitations sent to other villages.

£2.90 by 16 relatives of the host's eldest daughter's husband (the one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

The majority of the persons present attended because of their residence in neighbouring communities and claimed no kinship links with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

Transfers of property at this feast differed markedly from those in feasts of the traditional type. Firstly, the food was contributed by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

In this village many of the older people wear only loin cloths made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

[1] See p.74.

other rites which are still based largely on traditional precedents, tapa cloths, arm-bands, necklaces and head-dresses are de rigeur, but informants stated that a birthday party was different, as it was a European institution.

The language most frequently used was Pidgin as most of the labourers came from various parts of New Guinea, but the local people spoke between themselves in Orokaiva. Police Motu, the official lingua franca of Papua, was heard quite frequently and the notice about donations was written in that language. While the non-Orokaiva people conversed freely in lingue franche, the less prominent of the Orokaiva people kept largely to themselves.

The only indigenous musical instrument present was a single drum, but it was not played. When asked why there were not more drums, those present expressed mild contempt for them and explained that there would be guitars. All the music, which continued almost nonstop from dusk on Saturday until daylight Sunday, was provided by six or eight guitars owned and played by the indentured labourers present. There were no skilled guitarists, and the band merely strummed a basic rhythm which changed little during the course of the evening. The repertoire of songs was not extensive and most were repeated many times. All of them were either popular Western or modern Polynesian tunes, some sung to Pidgin words, other to English words and a few to Orokaiva words.

Most of the young men danced, some of them almost constantly, but very few knew any pattern of steps. The majority were attempting to dance modern style Polynesian dancing which had been learned indirectly from the Samoan, Cook Island and Tongan missionaries who served along the south coast of Papua (though not in the Orokaiva area). The one man who could perform a particular Samoan men's dance quite well had learned it directly from a Samoan missionary several years ago. Some individuals tried to dance traditional Orokaiva steps but were not particularly successful owing to the foreign nature of the music. Several men from New Guinea attempted ballroom dancing which they had seen performed by Europeans in New Guinea, and in films.

Of a total of approximately 130 adults present, only about 20 were women. While the discrepancy was partly accounted for by the number of male contract labourers, most of the relatives of the hosts who attended were also men. Few of the settlers or other visitors brought their wives (unless the latter had relatives at Inonda). The cooking was done by a group of five women, while the others remained in the shadows.

The music and entertainment were almost exclusively the prerogative of the men. No woman joined the band of guitarists and singers at any time, and none attempted to dance until about 10 p.m.

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Men dancing at the feast

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595 when three young single women joined in, though each danced separately and without appearing to take any notice of the men or to be noticed by them. Only three mixed couples were seen dancing during the whole evening, the partners in each case being real or classificatory siblings. They danced ballroom style, which the girls had seen when away at work as nurses and domestics. On some occasions two men danced together, but for the most part each man danced individually, following his own style and apparently oblivious to those around him. Traditionally, married women do not dance, though single women dance in supporting roles.

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177 It was clear that while music and dancing were based largely on a very limited conception of Polynesian patterns, dress and other behaviour was based on European models - even to the extent of several of the most prominent citizens handing out Rothman's king size filter cigarettes! Though traditional prohibitions (such as those against married women dancing) prevailed, there seemed to be a conscious effort not to behave as an Orokaiva, and some of the local people who did not participate explained that it was because they did not know how to dance in the modern style. Over all the men engaged in nontraditional activity much more than the women did.

574 Shortly after daybreak a church service was held, breakfast was served, and the party was over. The remains of the food was distributed to those relatives who had contributed most food and

those visitors who had given most cash. In former times, they said, feasts usually continued for two to five days, but today there is a tendency, particularly in areas where paid work is available, to get them over in a single night or week-end.

While the rationale for the party was the birthday of the two children, they were in fact conspicuous by their absence from any aspect of the celebrations, feasting or exchange. The changing modes of dancing, dress, entertainment and economic exchange showed a constant striving to acquire foreign behaviour patterns. The feast did serve to confirm the adoption of the children (which had not previously been formalised) and to affirm the bona fides of the son-in-law who had been unable to meet his bride-wealth obligations. But it appeared to me that the main motive of the promoter (a retired mission teacher whose prestige was considerable, but waning in his retirement, and whose status was marginal in a patrivirilocal society in which circumstances forced him to live in the village of two of his daughters' husbands) was to reaffirm his prestige and reinforce his stake in the village of his residence.

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-- 1930. Orokaiva Society, London.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on [191] the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

192 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C[A](1)

805 The Inonda people refer to the dry season as huvira
824 because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [504] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 The warm moist climate is generally favourable for
241 plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

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(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

241 about one and a half miles (thirty-five minutes walk) from the village on part of the land known as Inota. They are planted contiguously: partly to keep the amount of clearing and pig fencing to a minimum and partly to ensure companionship while working in the garden (which may be related to the traditional but now unnecessary consideration of mutual protection). Because of this practice and for other reasons enumerated below many people have made their gardens on land in which their lineage has no proprietary rights. Each household has at least one garden which is currently producing and one recently planted but not yet in bearing on the Inota block. Three of the households have gardens (or are in the process of making gardens) on other Inonda lands (Eumo and Sesehauta) while three other households have made or are making gardens on land at Hohota village. Two of the latter are new gardens and they are situated about one mile from Inonda and the other, which is currently producing, lies west of Hohota village about 4½ miles from Inonda. Two other gardens made by Inonda people on Hohota lands in 1960 have now been abandoned.

[621] The people say that in earlier times they made special feast gardens to provide food for taro festivals, death feasts and other occasions. Feast gardens were often cleared on a community basis by all the working members of either the village or a sub-clan within it, but were then subdivided and a section was allotted to each of the households for cultivation.
[574] The Administration has discouraged large scale taro festivals and none has been held for several years. However when a man from the village died during the survey, the members of his family decided to make a feast garden on a piece of ground which he had cleared just before his death.

[574] We were shown two feast gardens, one made in 1953, and the other in 1960. The precise boundaries of the one made in 1953 are no longer recognizable, but the garden was apparently a very large one of five acres or more. It was made to provide food for a feast held when refugees (from the Mt. Lamington disaster) from Sewa and Ajoro villages left Inonda to return home. The other feast garden, which is now abandoned, was made at Hohota by a man who has no hereditary rights in land at Inonda. He has three married daughters, two of them married

cleared the virgin forest, any of their number could return and take up residence on the site of their previous village and again use their abandoned gardens (which are now covered with second growth). The area is too far distant to be planted while living at Inonda. On the other hand they recognize the residual rights of the Tandai'undi to the garden land, and the exclusive rights of the Tandai'undi to hunt in the bush and fish in the river. It is apparent that some rights in the area are retained by each party, but it is probable that the Inonda people could not in fact resume residence there without further negotiations with the Tandai'undi.

About twenty years ago a man of the neighbouring village of Urio who had no sons of his own (nor any brothers with sons) gave a large block of land named Sesehauta, which lies adjacent to Inonda, to his sister's sons - the members of the Jego'undi sub-clan of Inonda. In an attempt to avoid future dispute he held a feast to mark the transfer. At the feast, the Jego'undi gave pigs, taro and traditional valuables to their mother's brother and these were distributed among his clansmen. About two years ago the people of Mosou came, at the suggestion of Native Affairs officers and with the approval of the Jego'undi, and established their village on this land. They did not make any payment, nor do they propose doing so, though they do make occasional informal gifts of betel nut and sago to the Jego'undi. Although most Mosou people still plant on their own lands a mile or two away, several of them plant on the Jego'undi land. The Mosou people do not hunt on this area as they have ample other hunting land, but the Andiriha of Inonda sometimes do. This is another case of land rights being shared by several clans and sub-clans - the donors who retain residual rights, the donees who hold some current use rights, the Mosou people to whom some rights of residence and land use have been delegated, and the Andiriha of Inonda with whom the Jego'undi sometimes share hunting rights and who consider that, as the dominant sub-clan, they should be consulted on questions of disposal or transfer of rights to the land. Neither of the two adult members of the Jego'undi in Inonda have sons, though one has daughters. The future rights to the Sesehauta land will presumably remain in the balance for some time.

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

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Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods.

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land giver/land taker; human partner/spirit partner. In all these cases the equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are 'translation rules', i.e. rules about the translation of sentiments into prestations and about inferring sentiments from prestations received. These rules are elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest equivalent of *why*? is *do eto*?, meaning: what having been done, what having been?) I found that (except for identical return gifts), such questions were usually answered in terms of sentiments felt or professed by the donor towards the recipient. Bridewealth was always explained as a way of appeasing the wife-givers' anger at the taking away of their daughter. This anger is not just in the wife-taker's mind but is expressed by the wife-givers by certain stock actions and phrases (as in any joking relation) behind which there are individual variations in genuine attachment to the daughter, genuine aversion to the affines and shrewd calculation. To give another example, many feasts are made in order to restore amity between groups, in which case the small preliminary gift of betel nut and food accompanying the invitation (*sope ikari*, Schwimmer 1973: 151) would stand for an offer of amity (translation rule) and acceptance of the invitation would signify the prospective guests' willingness to forget past grudges.

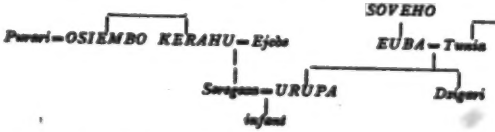
Semantically, gifts encode sentiments in many ways: by what is given, how much, of what quality, in what manner, where, when, in the context of what relationship and so on.[2] The recipient decodes: he reads the donor's sentiments in the prestation—the only language that, in the cultures discussed here, does not lie. Words are not to be trusted: but a gift is sacred like a statement under oath. Sentiments do not, of course, objectively explain gifts but the translation rules specify what message a particular gift conveys about the donor's sentiments. While social anthropology may not be interested in sentiments as such, it should be interested in the codes in which they are ritually expressed and in which the receiver is urged to change his own sentiments. To the extent that the principle of reciprocity has weight in a society, conflict will tend to be resolved by prestations that will re-establish sentiments of amity rather than by the interpretation of (often ambiguous) rules of law. Such prestations recompense the distress caused rather than the torts committed.

The rest of this article will present an example of semiotic analysis of an exchange system. This analysis, based on Orokaiva data, starts (part II) by investigating terminology used in discourse about gifts, debts, exchange and reciprocity. It explores the relation between the constitutive rules and the ideology of reciprocity.[3] The second step in analysis (part III) will relate this ideology to the overall Orokaiva world-view, thus demonstrating that the principle of reciprocity is not an observer-improvised category but an integral part of the conceptual system. Finally (part IV), we shall consider the relation between the constitutive rules and transactional practices and test Sahlins's theory of exchange against the semiotic analysis of Orokaiva data.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau kakere ido tungenu

Ijoto poudo ido tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognised and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966.

235 My prognosis for pigs as an economic resource is poor. The fowl [261] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters were deprived of many of their choicest feathers at a time when [295] headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [579] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these 438 ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield 241 economic products, those plants which are native to the district 311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[A] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xantosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Numuni in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside them. [578] There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring [574] villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than [754] transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

657 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sauaha; Crocombe and Hogbin describe Sauaha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garoubi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[657] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts [659] generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly [178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000 [162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 628 bond is respected by both sides and utilized for purposes of mediation. The friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted 621 to affinal bonds or lead to co-residence, in which case an entirely new pat- 572 tern arises. It is possible for migrants into a village to have no bonds other [166] than those of hereditary friendship with their chosen hosts. But once co-residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

572 *Apa/eambo* and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds – for two generations senior to ego – but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

572 (a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs 931 in some ritual features from the hospitality shown to affines and to con- ● 594 sanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

host family only. If the guests do contribute, this happens behind the scenes so that the host still appears as the sole donor.

When the guest is an hereditary friend, the host supplies a pig and valuables (such as feathers, ornaments, and nowadays, also money), while other villagers openly present the vegetable foods; the visit is incomplete without such participation. However, the gifts are not presented when the guest arrives. First, he is fed vegetables and meat (this is *pondo* or feast; an ordinary meal contains no meat); he converses with his host and sleeps in the host's house. No mention is made of gifts until the moment of his departure. If he hears any plans of gift-giving, he would be expected to refuse the gifts. The pig is killed secretly, away from the village. At the moment of departure, the guest is confronted with his presents, which he can no longer refuse.

We note that the symbolism throughout is appropriate to the cooperative type of relationship: amicability is not conditional upon the host's prestations; the guest does not desire the host to part with his substance. The host does not give demonstratively but stealthily, emphasizing the intrinsic rather than the extrinsic benefits the partners get out of the relationship. But in the wife's sorrow over the loss of her pig (a metaphoric child; cf. Schwimmer, 1970b), a more complex phenomenon occurs: she does emphasize her loss, though inconspicuously (only a strip of cloth tells the story: she tears off a piece of her skirt and uses it to truss the pig to a stick).

Even without this touch, the departing guest knows that the gifts he has received include some of his host's most treasured possessions. Having been in the position of a departing guest, myself, I am perhaps able to understand how Orokaiva experience it. As I was leaving Sivepe, and after all formal leave-taking was over, an old man from another village came to offer me one of his most valuable birds of paradise which everyone knew to be a source of pride to him. As I was unable (and not expected) to give anything in return at this time, it was an irreplaceable loss. There was no expectation of future gain but only the expression of a bond. These are the symbols they live by; this is how a previous stranger is lodged in the centre of their social world. Thus, it is absurd to call such friendship peripheral. The old man's bird of paradise was anything but peripheral; it was his most prized possession (almost his only possession). It was, in fact, the magic by which the nature of the relationhip was transformed from a peripheral to a central one.

Certainly, such a relationship is largely free of kin obligations, almost as free as Burridge suggests with regard to the Tangu. Obligations are not wholly absent, even though they cannot be expressed in a kinship or economic idiom. The bond is based on feelings of attraction towards the personal qualities of an individual and it develops out of various types of shared experience. Unrelated males who are initiated together become *namei*. *Otavo* of all kinds (see section on Simbo, p. 65) may eventually become *namei*.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

431 But recruitment to this status is not restricted to specific categories; any two
572 people can become *namei*. These bonds provide some measure of control
574 over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

572 (b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hòvatu* (brother-in-
[591] law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated
[582] to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit
[431] each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

123 Unfortunately, a male anthropologist cannot plumb the mysteries of this
572 relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

628 If two unrelated young women of district A are *jao* and marry in villages
572 B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 The rejection of both the cooperative and the competitive relationship
602 applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a
608 fruit is a ritual that is sometimes performed between a married couple; for example, when the community has decided to hold a feast. It symbolizes
[824] that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in
[439] which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 Similarly, feasting occasions between villages often result in *otavo* relations. Partnerships have to be arranged for accommodating guests in host
574 households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intragroup morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study[2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

it may be given away, complete with tops, by a man to other men. We here see the same contrast which we met before between a metaphoric and a metonymic gift. The feminine gift, in this case, is metaphoric: she gives her own essence, which is taro, to the man. In return she receives meat, the man's essence; but we come to this later. The male gift of taro, raw and complete, is metonymic: he gives some part of his taro nature, conferred upon him by woman, to another man with whom he desires to establish or restore social relations.

The significance of taro, as part of the nature of the human male, is clarified in the myth by the opposition between the male twin and the man from Managalase. The Managalase is a neighboring mountain district where the main crop is yam, not taro, but where a variety of taro (called *pijama*) is also grown. It is not, however, grown in gardens but in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son: unlike Totoima, he recognizes the technology of domestication of taro, but he recognizes it inadequately, being mainly a hunter. Such, at least, is the view expressed in Orokaiva stories about the Managalase.

Taro, to the Orokaiva, is symbolic of strength; it is preferred to other staples because it builds stronger men, so it is believed. Taro is, moreover, the principal bulk gift displayed at feasts. Certainly, pigs are always given away at feasts, but in small quantities, and the size of the feasts is not principally measured by the amount of pig meat given away. It is by the quantity of taro that changes hands that the size of an Orokaiva feast is measured. A pole is placed in the center of the heap and measured. When taro is received at a return feast, the recipients take it back to their own village and lay it against the same pole. If the quantity is smaller, the other side has lost the competition. The strength of a village is measured by the amount of taro it can produce. The strength of a fighter or hunter is derived not so much from the amount of game he has previously killed; it is derived from the taro he has eaten. It is in this sense that taro, when consumed by man, is stronger than pig, though in the absence of this metabolism, pigs are stronger than taro.

the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Mosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

361 cultivating gardens that are more than a mile or so away from his village.

241 When Rimoldi made his careful notes of cultivated gardens,
311 these seemed to be predominantly in the Northeastern part of the village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepe is again in that area.

731 Inonda experienced three shifts since the eruption: first
361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses
659 close together and little space between the rows--both post-eruption settlements of Sivepe and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend [364] to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [575] which the Americans laid down during the war. Sivepe got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including [591] Sivepe, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepe villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing
659 standards, village sanitation and roads. We find Wilfred Beaver,
364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among the Orokaiva, though the women do certainly at times act as a solidary group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

wife, effectively shaming the husband. Today's organisations are sponsored by the government as well as the mission. The government employs a female "welfare officer," attached to the Department of District Administration at Popondetta, who is charged with the organising and supervising of what are cal'ed women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc., make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on their knowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club, built a club house in 1967 and had the use of a sewing machine. Kiorota had a club house, used not only by the women but also by the men when there were important visitors.

In the Sasembata district, the women's clubs became fused with their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too faraway to attend regularly at the mission station, several branches were formed, in places such as Kendata and Puri, while the villages within easy reach (Sasembata, Sivepe, Garombi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepe and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepe woman. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepe at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

794 and sang hymns and gossiped. Once a week, or at least as many weeks
575 as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

[554] The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

794 The mission women now withdrew from the club and asked for their
575 membership fees back, which they were given. It appeared that their
578 quarrel was not so much with Sivepe but with the Sasembata village
628 women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

yet been completed (which was true) and that these ought to have priority. The women then became impatient; after which they explained to me that the women had talked to them insolently and they had told them to build the house themselves (which was a male task; it would have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

About three months before our departure from Sivepe, a mission teacher told me that his wife intended to teach Sivepe women a coastal women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence. I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

At all these practises, the mission teacher sat and watched at the centre of the stage. His wife played the role of the teacher; later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
777 the concern of our present project. It is very clear that some basic notion of Christian monotheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

I have referred several times to the tendency to place ancient
777 ritual under the protection, so to speak, of the new God. Rituals
[788] connected with the taro cycle were performed at Christmas and Eastertime,
[775] perferably on the mission station. While the beliefs about the ghosts

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, the commitment of productive effort outside the range of the security circle all tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.
2. For the location of Garombi, see Fig. 10.
3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.
4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

then takes up a position behind the initiate while the *aguma*, standing in front of him, teases him by pretending to offer him the *otohu*. When the initiate stretches out to receive it, the *aguma* snatches it back again. It is tossed over the initiate's head to the man behind him, or to spectators or from one spectator to another. Williams reports:

> It is properly at this stage, while the initiate is waiting to receive his ornament, that the *aguma* lays upon him certain injunctions of an ethical character. These are always associated with the *otohu* and, as we shall see, they throw some light on the obscure meaning of the word. As he proffers and withdraws the ornament, the officiating *aguma* exhorts the candidate to refrain from thieving, from adultery, from quarrelling and from such lawless acts as killing a neighbour's dog. (1930: 191)

After describing the ceremony of presentation, Williams turns to the explanation of the word *otohu*. *Otohu*, he says, tend to be regarded as rather beautiful objects but embody a social distinction as well. The wearing of an *otohu* 'implies that the owner has paid a pig (if he acquired it in adulthood), or that it has been paid on his behalf, and thus the ornament has been formally and regularly acquired' (*ibid*. 203). Sometimes the *otohu* is acquired in return for the body of a man, rather than a pig, but Williams finds (unlike Beaver 1920)

> no very essential difference between the 'pig *otohu*' and the 'man *otohu*'. They are of the same nature, but one is bought with the body of a pig and the other with that of a human victim. . . .
> It would appear that the homicidal *otohu* or *esa* was less an *insigne* conferred, *honoris causa*, upon the man-killer as such, than an ordinary *otohu* purchased with the body of his victim. (*ibid.*)

Williams saw that his theory brought him into conflict not only with Beaver's explanation, but also with apparently obvious implications of the ritual of conferment. Why did the *aguma* always recite his own past killings? Does not this indicate an association between *otohu* and man-slaying?

Instead of elucidating this, Williams turns to interesting data on the usages of the word *otohu*. As an adjective, it means: well-behaved, decent, diligent, generous, respectable, set apart, holy. 'An *otohu* man was he who went about his work quietly, who returned from his garden with wood on his shoulder and set it down, then chewed his betel without "rowing".' There is a direct connection, Williams remarks, between the virtues subsumed under the word *otohu* and the injunctions laid upon the initiate by the *aguma*. He concludes that the possession of an *otohu* creates a social obligation, namely to behave in the manner called *otohu*. As for the derivation of the word, Williams has no suggestions to offer except one interesting point: the Baruga, southern neighbours of the Orokaiva, have a word *kortopo* which is used in the sense of *otohu* but *also* in the sense of *hae*.[3] He wonders whether the *otohu*, 'originally', might have been a clan emblem (*ibid*. 206). In addition he reports, but gives no significance to, the fact that the larger of the two flutes used at initiation ceremonies is called *otohu*. The sacred flutes are always played in pairs by two men facing one another. One of the pair (the *otohu*) is larger than the other, which is called *e* (= mother).

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. [778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out [266] among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20), we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

A [See p. 135, Cat. 431--Analyst]

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.[A]

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *agumu* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
●577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa;*
773 *donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena.*
177 *Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa*
539 *eto i gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earora. Eto donda matu runuga ena avo indie traetera avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto india. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora."* Robert, Sivepe, 1966.

694 20. The text: "*Embo handa piriti embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora."* Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da piriti embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puruna."* Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

581 account, the meeting ruled that the cause of the marriage breakdown was the
586 husband's refusal to allow her to enter his garden. The attempted seduction, the
627 adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

578 Another such case was that of a man who took sides in a quarrel between his
837 brother and another man who had been trying to rape, i.e. seduce by force, that
571 brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him.

[583] And why would nobody help him? Well, brideprice had been paid for his first
[581] wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

829 In both instances a basic exchange cycle had been broken and that was
431 thought to constitute the essence of the relationship. In the first case this was the
436 exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 776 574 Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at [829] war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

571 431 829 [574] We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

121 The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

628 574 578 A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sovai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

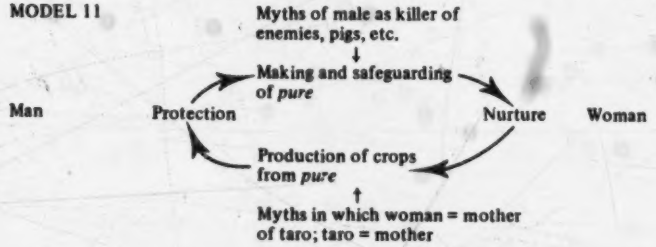
S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

The significance of this ritual became a little clearer to me through the case of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

596 In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married 428 male is fully competent to carry out ritual in the garden he is cultivating. The [775] Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

596 Informants were all agreed that at any time either the *enda mama* or the ● 598 junior member of a land-holding corporation may opt out of the relationship: 593 such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

596 When such separations occur within a three-generation extended family, they 613 are regarded by the community as (minor) misfortunes. On the other hand, they 423 are regarded as normal when they occur between first cousins in a four- or 571 five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] [754] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

628 728 574

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 could not help noticing the connection between the reconciliation and the
628 simultaneous fear of sorcery to which I have already referred. But perhaps
neither historical explanation is necessary.

721 It seems clear from Williams' evidence and from the little I could reconstruct
728 in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1).[A] The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 The model applies not only to inter-village relations but to all social relations
602 in general, consanguineal and affinal relations included. Quarrels between
578 consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone
754 too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58—Analyst]

[TEXT CONTINUED ON PAGE 158]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

571 602 ●518 754 conflict, necessarily precede recourse to sorcery. It is believed, however, that such relatives will not usually carry their resentment too far. As soon as the afflicted person makes his apologies and shows himself ready to make a pig sacrifice, such sorcery will normally cease. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives [431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

571 578 602 583 Prestations between affines have a similar explanation, though the pattern of hostile action and retaliation between affines is somewhat different. The first hostile action in the series tends to be the abduction of a woman for purposes of marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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5 This interpretation of Orokaiva sorcery appears to be largely supported by Lawrence and Meggitt who argue that in societies with 'stable social organisation' (among which they count the Orokaiva), sorcery accusations act 'both as an important medium for expressing enmity and as an excuse for initiating warfare, which is ultimately the most effective means of relieving feelings of aggression' (1965: 17). The authors appear to believe that sorcery can be explained along psychological lines as fulfilling a need for channelling aggression (*ibid.* 18). I find it hard to see how the specific facts of sorcery behaviour (and especially the transactional patterns described in these pages) can be explained in terms of universal needs. Sorcery is only one of many substitutes for physical aggression and all these substitutes, in one way or another, serve to maintain a relationship of negative reciprocity.

Accusations of sorcery probably have a cognitive as well as an effective 'function', for they imply an explanation of misfortunes for which no natural cause is known. Furthermore, such accusations turn misfortune into an object of mediation in (negative) social exchange. The assumption is made that the misfortune will continue until the relationship with the sorcerer is basically changed, either by his defeat or by reconciliation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

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A (See Cat. 571, p. 148--Analyst)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present. 614 924

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions. 582 [121]

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*. 582 583

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like. 583 602 578

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 602 578 led to serious quarrels, especially if the girl had been kept by her parents or brother for an exchange marriage. Usually, these quarrels were settled in due course upon payment of a suitable bridewealth and sometimes by a subsequent marriage for which the abductor's family provided the bride. Williams comments:

> The remarkable gestures of hostility against the husband's people which sometimes characterise Orokaiva marriage, i.e. the attempted dragging away of the bride by her people, the humiliation of the bridegroom, the damaging of his village and the bellicose demonstrations at the taking over of the *dorobu* (= bridewealth), all properly belong to the irregular methods of capture and elopement; they are the aftermath, the retaliation (1930:149).

583 584 The third and fourth marriage forms distinguished by Williams are purchase (i.e. obtaining a wife in exchange for *dorobu*) and exchange (*mine*, i.e. an arrangement whereby two men each make a true or classificatory sister available to the other). It seems that Williams did not differentiate clearly between modes of obtaining a wife and modes of making a valid marriage contract. One might obtain a wife in a number of ways. Certainly, capture and abduction seem to have been the most frequent at one time, but there were also child betrothals; long-standing preferential arrangements between villages; romances leading to sister exchange and marriages to seal political alliances. There was the whole gamut between choices made by lovers without parental approval and choices (probably relatively less frequent) made by parental fiat. But there were only two ways of making a valid marriage contract, namely *dorobu* and *mine*. Williams himself comes very close to this view towards the end of his chapter on 'Marriage' (1930: Ch. IX). He also maintains, no doubt correctly, that in Orokaiva thought *mine* appears as the 'ideal', i.e. preferential, mode of contracting a marriage:

> It appears that marriage by exchange is preferable to marriage by purchase – at least in the eyes of the marriageable man, and probably also in the eyes of his elders who sympathise with his desires. We may perhaps go so far as to say that the actual buying of a wife only takes place when circumstances make present or future exchange impossible (1930: 149).

This seems to place Williams' theory firmly on the side of Guiart's theory of marriage in New Caledonia: exchange marriage becomes the preferential mode, the 'model', whereas marriage 'by purchase' is demoted to the status of an ecologically caused departure from the 'model'. In this chapter I shall argue that Williams' Orokaiva theory reifies the folk model and conceals some of the complexity of Orokaiva social structure.

4. *Elements of Restricted Exchange*

582 583 Marriage rules related to the principle of restricted exchange are actually more numerous than Williams supposed. They must be briefly reviewed before we can argue cogently that the principle of restricted exchange does not suffice to account for the rules governing the total Orokaiva marriage system. Williams was entirely right in supposing that the Orokaiva have preferential sister exchange

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

000 2. E. G. and J. D. Krige describe a particularly clear example (1943: Ch. IX; 1939) among the Lovedu.

583 606 578 3. I discussed in Chapter VII the Orokaiva device of using anger for the mediation of social relations. Monica Wilson has described a somewhat similar mechanism for the Nyakusa (1952: 99–112; 1959: 161, 165, 217). Among the Orokaiva, however, two opposite tendencies are at work: the obligation to express at once the anger one feels and the offender's obligation to assuage that anger (whether justified or not). Much Orokaiva exchange involves prestations made by one party to compensate for anger felt by the other.

While 'anger in the heart' is disapproved by Orokaiva, most actual misfortunes are explained by anger existing in someone else's heart. The guilty person is deemed to be he who, though aware of his anger, does nothing to remove it. It is most often the victim of the angry person's retribution who is expected to feel guilty. One may show anger by harming one*self*. Such action, while overtly non-aggressive, is in fact a threatening signal to the causer of the anger.

000 4. A similar discovery was made by Watson (1970) in a paper based on New Guinea Highlands data, entitled 'Society as Organised Flow'.

435 245 At the time of planting, copra prices were relatively high (averaging £32.10.0 per ton f.o.b. in 1920) but a fall in overseas prices and the introduction of the Navigation Act in 1921 (which resulted in exports to Europe having to go to Australia first) made copra production uneconomic.(1) [258] [249] No copra was ever made from the community coconut grove at Ongoho, nor were the small stands of rubber and citrus fruits ever exploited. 245 425 After the war the Akute'undi, as landowners, claimed the trees as their own on the ground that the community project had been abandoned long before. One Akute'undi man claims and uses about half of the trees. His father planted food crops on that part of the land before the coconuts were planted and he now plants vegetables between the coconuts. Each of the resident Akute'undi men claims the right to the produce of several particular trees on the other half. Three trees are set aside for the medical assistant at the local Aid Post, as he is a stranger. Most members of the other sub-clans question the right of the Akute'undi to the exclusive use of the coconuts as [578] all groups participated in the planting. Occasionally some member of the other sub-clans asserts himself and collects nuts from the "community plantation" and the dispute which is normally quiescent flares up again.

245 258 249 Enquiries in fifteen other Orokaiva areas where coconuts were planted under the regulations show that most were never used for copra-making, though a few of those on the coast were so used from time to time. Not one plantation was systematically exploited. The rubber was not tapped as there was no market for the latex, and most plantations were not cleared after planting.(2) The citrus fruits were never exploited commercially, again because there was no market.

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(1) By 1923 average f.o.b. price per ton had fallen to £19.0.0 and by 1930 to £11.10.0. By 1934 the price was £8.0.0 per ton in London or about £4.10.0 f.o.b. Papua, though Papuans had long since stopped selling. The above prices were those paid to exporting traders, and net prices paid to indigenous producers were probably not much more than half those mentioned above.

(2) After 1941 other arrangements were made for use of the rubber plantations. For details see Rimoldi 1964.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

245 ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not [578] paid. There was by this time a continuing dispute about the distribution of income from the coffee.

578 423 614 The Hoiwo'undi sub-clan, on whose land the Ongoho coffee was planted, claimed a larger share of the proceeds because the land was "theirs". As no agreement was reached, the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is unjust that Hoiwo'undi should have denied them access. No- [241] body, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

245 For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee there spasmodically. The income was shared within Hoiwo'undi. No weeding, pruning or other maintenance work was carried 73 out at this period. At the time of the Mt. Lamington eruption 241 in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations.(1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952. 241 [731]

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account. [578] [258]

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the 654 245 245 578 [654]

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage. [425]

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654] [435]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

245 operated for several months but broke down when the Hoiwo'undi, who felt that they were entitled as landowners to some extra [578] share of the proceeds, again forbade members of other sub-clans to enter the coffee garden.

Since that time only the coffee boss and his family have ever picked the coffee, and they only occasionally. No maintenance has been carried out for some years. The Hoiwo'undi people say they would like to take full control of the block and divide it into individual plots - one for each of the six men in the sub-clan. They would be prepared to grant a portion of the block to the related Akute'undi of Ongoho village who were planting food crops on some of the land at the time the 578 coffee project was started. Some Akute'undi claim that the land is, in fact, theirs exclusively. The other sub-clans want separate and equal divisions for each of the participating sub-clans, arguing that all cleared and planted the coffee. It is unlikely that agreement will be reached.

121 We subsequently paid brief visits to sixteen other plantations which had been gazetted pre-war to determine the nature of the problems which had led to their abandonment. As time did not permit of detailed investigations, we regard the results as indicative rather than definitive. Details of the situation are set out in Appendix A. A.

A. [See Category 423, pp. 37-40--Analyst]

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 [614] [619] This section outlines the range of wider common territorial interests and concerted political action among traditional groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case sharply distinguished from the standard forms of hostility between [266] [721] tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

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[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

possession of its own tracts of land' (1928:125). In view of the uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

Fighting within the tribe (emboge), though frequent,[1] was governed by restrictive conventions absent from the conduct of deliberate raids (isoro). Organised aggression was rare and the deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

The frequency with which fragments of one clan are found scattered in 3 or more districts of the tribe suggests that here Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

166 361 613 Neither the man nor his son has every cultivated his patrimonial land at Hamburata although they hunt and fish there. The man makes these periodic visits to affirm his rights as he claims that constant surveillance is necessary to forestall encroachment on his land. His father's brother controls the land in his absence.

By 1950 the members of the Berekipa households who numbered 12 had thus acquired only 5 parcels of land (totalling 9 acres) near Sivepe since the lineage returned from Hamburata 30 years before, and had to rely on other lineages for access to adequate land. [657] After the war the Berekipa were asked by the Administration to move from Pusahambo to a village called Pamba where Arehu lineage was living. They seem to have been largely dependent on the Arehu and on affines elsewhere for planting rights since then.

The Arehu people had founded Totogata next to Simbehata and remained there after the other Jegase people had moved on to Euru and Korogombata. Some members of Bebehupa lineage, in refusing to recognize Arehu as a genuine Jegase lineage, explain that it is an immigrant group descended from a Togahau man of Arehu clan[1] who was adopted as a child after a Jegase raid on the Togahau. The land the group now holds is centred on Simbehata and the Bebehupa, although they take little interest in it, allege that it was acquired when the Jegase man from Simbehata was killed at Divinikovari. The Arehu have retained and strengthened their rights over the years and to all effects have become absorbed into the local branch of the clan, extending their effective ties there by intermarrying with other lineages. When pressed, the only resident male (d4J) even answers questions about the position ascribed to him as one of the agnates in the local group by stressing that he and his father married Jegase women, as if no more need be said. [578] The grandson of the alleged original landholder has disputed the rights of the Arehu man to the parcel of land on which the old village Simbehata was situated.

[657] Several years after the ancestors of the Bebehupa left Simbehata the Arehu were told by a government officer to amalgamate with other Jegase people and with the members of Timumu and Seho clans from Euru and Asina. The village formed on Seho land was old Sivepe with its satellite, Pamba; most of the people stayed there until they fled the Mt Lamington eruption in January 1951.

The Pekuma and Hajejopa lineages of Timumu clan had both joined the Jegase and Seho people in founding old Sivepe. The fathers

[1] This clan today is represented in Sirembi village in Togahau Census Division and possibly in other villages there. In 1923 Williams (O.1) noted that they were also present in the villages of Pororí and Ohamba.

[TEXT CONTINUED ON PAGE 45]

166 361 613 of the 2 senior men of Sivepe had divided their allegiance between branches of the clan at Euru and Soroputa and had exercised rights to land near both places. Since the death of his father the Pekuma man (d1T) has lived first in Euru and then Sivepe with his mother's kin and later his wife's kin. He and his adopted son (e1T) hold 28 acres nearby but he has never cultivated the land his father used at Soroputa; he sometimes obtains the permission of his father's brother to collect the produce from trees his father planted (see p.24).

About the time the older Hajejopa man (d15T) established his household at Euru, he was involved in a dispute with his father's kin from Soroputa who wanted him to return or else relinquish his rights to the land his father had cultivated there before settling permanently at Euru. Like the Pekuma man he preferred to settle on the comparatively large landholdings (18 acres) near Sivepe and severed most connections with Soroputa.

731 361 (ii) Changes following the 1951 eruption. Sivepe-Pamba and Binduta were a few miles outside the area destroyed by the major eruption. Referring to the population of these marginal areas Keesing (1951:3) says that 'after the first panic of scattering... local groupings were in the main able to reassemble in the regional camps with such official aid as was necessary'. Refugees from the west side of the mountain were collected from emergency encampments along the Kokoda road and taken to a regional camp first at Wairope and then at Ilimo near the Kumusi River. The villages of the Jegase and Timumu were included in the danger zone which was defined about 4 months after the first eruption. They were about 7 miles from the summit and the danger area extended for 8 to 12 miles around the active crater.

When the limits of the zone were determined about 3,000 people whose villages were not closed off or who could find kinsmen to live with in resettlement areas outside the zone left the refugee camps. Most of the 2,000 who remained for some time at Ilimo were from the villages such as Sivepe on the more fertile land higher up the west and north-west slopes. Members of our sample however left to live with clansmen or other kin at Awala No.2 on the main road. In the chain of fairly continuous settlements which grew along the road great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among leaders from different local and kin groups. [578]

Most of these villages were still partially dependent on emergency rations issued to them while breaking in new gardens. Some of the Jegase people in Awala had their own small pockets of land nearby where they planted emergency crops and foraged; some made excursions during the day into the closed area to collect

A. [See Category 428, p.24--Analyst]

73 food from their abandoned gardens which they found in good
36 condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

613 It was not long, however, before the Timumu people became
36 involved in a protracted dispute with members of Kongahambo
[578] village (a new resettlement concentration near Sasembata), over
[177] garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

Meanwhile the Bebehupa had returned after the eruption to
[754] Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

614 (iii) The distribution of other clan branches. One Jegase
36 clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Mahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

621 current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. [602] But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

621 Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third 606 area (the Ope or Aiga), the village, consisting as it might of ● 578 intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

166 Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

614 (ii) Formal features of the local patrilineal groups. In dis-
613 cussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timusu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepe. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
171 result in repeated changes of residence as it does among the
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[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalizing the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

454 474 teacher who had undertaken part of a co-operatives storeman's course was approached for advice. They decided to attempt to finance training for co-operatives for 2 men, but it was over a year before agreement could be reached on the selection of the trainees, 2 Administration Servants employed in Popondetta.

By this time the teacher had disassociated himself from the scheme and advised the participants to discontinue it on the grounds that they had proved themselves incapable of organizing properly constituted meetings, that the villages had failed to co-operate with one another and that they would not seek the assistance of government officers. He told them that the joint accounts were unworkable and that they would need to buy individual £5 shares if they were to proceed with the scheme.

• 571 The development of the enterprise up to the date of our survey had been impeded by the failure to agree upon a name, an issue which those involved feel to be fundamental, and by the absence of widely accepted leadership. Meetings have been marked by disputes between local government councillors, teachers and leaders of the various descent groups participating and some decisions arrived at during meetings have not been supported by villagers who did not attend.

However, we have received some indication since leaving Sivepe that more positive co-ordination in the neighbourhood has been achieved in the meantime and concrete plans have been put forward with a view to establishing and operating a co-operative store on the main road to Popondetta (E. Waddell: personal communication). [366] There are at present at least 3 trade stores within easier reach of Sivepe than this.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of [425] fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to [578] land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[2] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available [311] at any one time to permit contiguous cultivation. Two other factors [136] are that in low density areas wild pigs and other animals necessitate [417] the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

438 consisted in the barter of shells, lime and wooden and clay pots
[437] from the coast in return for areca and feathers from inland. Clay pots, shells and feathers are now rarely traded and the coastal people hawk their produce, mainly smoked fish and lime, around the villages and at the markets for cash.

433 All the people's subsistence needs may be produced within the village or by kinsmen or friends in other, essentially similar, villages. The exchange system serves both as a form of group security, in that the aged or infirm or people with gardens temporarily out of production can rely on kinsmen or friends for support, and a means of exercising authority, through the manipulation of the flow of goods and services. Strictly speaking, however, there is no necessary dependence on the production or distribution decisions made by others. In the case of cash and storebought goods, the reverse applies. These originate outside the village economy and in most cases outside the country. Whereas, given the limits of time, resources and convention, a villager may produce as much of any garden or forest item as he desires, he cannot affect the quantities of cash or store goods available, or the rate (through wage and price levels) at which they may be obtained.

(b) The cash sector

434 The main sources of cash for Orokaiva villagers are the sale of
[443] cultivated produce, the sale of labour and remittances from kin in employment elsewhere. Since 1959, an additional source has been the ownership and operation of small stores, but so far only about twenty-five men (including some indigenes from other districts) have turned to trading. The relative significance of each source varies greatly from household to household within a village and within the sub-district. All occur irregularly and are highly unpredictable in the level of returns.

241 (1) Cash cropping. The cash crops of coffee, cocoa, rubber and coconuts occur in either individually-owned or communal holdings, the former under one of a number of land tenure systems, including customary tenure, the Higaturu Land Registration Scheme and the Land (Tenure Conversion) Ordinance. Individual holdings tend to be
[578] small, frequently less than 0.5 acres in size and containing less than 250 trees. The communal holdings are larger, often exceeding ten acres, but, in some cases, they are not worked because of disputes over rights to trees and land. In other cases, they are operated by individuals on a rota system. Plantings are rarely weeded or trees pruned. This applies particularly to the communal holdings, where individuals do not accept responsibility for maintenance. In the older rubber and coconut plantings many of the
[433] trees are self-sown. As well as lacking maintenance, in most cases

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A,[See Category 491, pp. 34-37--Analyst]

and two walked over the Owen Stanleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $6 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.0 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

517 [177] [578]

competing guitar groups, parties also provide a means of making contact with the opposite sex.

512 [177]

Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Kasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 6.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

512 461

In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

887 512

Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (6.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed osisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,[See Category 574, p.28--Analyst]

In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

villager it is said that the aggrieved party will place his <u>erahu</u> on the path leading to the land concerned as a warning to the offender. If he does not take heed the aggrieved will have recourse to sorcery or physical violence, or he may (less commonly) bring it before the assembled men of the village. If all are agreed on a course of action but the offender refuses to comply, he may be evicted. Two men of the subordinate subclan were threatened with eviction for alleged theft of produce shortly before our arrival. No further thefts occurred.

At present the only body with effective power to settle disputes is the Department of Native Affairs to which the people frequently have recourse. Just prior to our arrival one man had reported another villager for animal trespass and damage to his crops. The matter was settled by an informal payment of damages arranged in the presence of a member of the official patrol staff.

Current problems in relation to the enforcement of rights are discussed on pages 76-77.

CHAPTER 5 - LIMITATIONS ON PRODUCTIVITY

Features of the tenure situation which inhibit productivity

614 423 518 The overlapping claims of various clans and sub-clans cause uncertainty as to the rights of each, in particular with respect to lands planted with cash crops. To illustrate this point we will quote several examples. During our stay in the village one Inonda man had a temporary job as foreman in a nearby construction camp. Due to completion of a particular phase of the work some workers were dismissed by the European overseer and these included some Tandai'undi men. These men then came to Inonda village and reminded the foreman that Inonda was "their" land and that if he wanted to remain on it, he had better get them their jobs back. This foreman has no cash crops and claims the reason for this to be his fear of trouble with the Tandai'undi. With one exception, nobody has cash crops on Inonda land. The Inonda people dare not take the case to the Lands Commission in case judgement is given in favour of Tandai'undi, in which case the Inonda people could lose all their rights.(1)

614 423 425 518 Those Inonda people who have cash crops in production have planted them on the far side of the Girua river. The land where they are planted was occupied until about forty years ago by the Endehi'undi clan. The Endehi'undi were defeated in war shortly after European contact and the few survivors scattered to various villages where they took up permanent residence. This land was apparently abandoned and not used again until 1952 after the Mt. Lamington eruption when some people of the neighbouring Jau'undi clan of Hohota village cleared the bush and planted food gardens there. After the Mt. Lamington danger passed most of them returned to their home

(1) The Native Lands Commission in the Territory appears to have awarded title on a basis of historical precedent much more frequently than on current needs or recent arrangements. It would not be surprising if, in the event of a case before the Commission, rights were awarded to the Tandai'undi (in pre-contact times, of course, occupation of the land and the relative strength of the two parties would have been the main criteria).

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

614 not legally binding.(1) In fact, however, the parties to this dis-
423 pute assume that the officer concerned does have the necessary
425 power to enforce the agreement, and thus it is effective for the
657 present, particularly as it has been reinforced by registration of
692 the land with the council. The Endehi'undi nevertheless intend
518 to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

614 Our third example concerns the Jego'undi sub-clan
423 of Inonda. Neither of the two adult members of this sub-clan
425 has planted cash crops. One of them had prepared ground for
518 planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Busin v. Havini in which it was ruled that although Regulation 59 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soape v. Westiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

assistance. The system of investigation followed by the Commission is very detailed, and accordingly in the period of three years since the Commissioner was posted to the district only about five disputes have been settled. Already 34 other cases are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

In the meantime the area is left without adequate machinery for the definition of rights and the settlement of disputes. Indigenous leaders, whether councillors, clan heads or other elders have no legal right to determine disputes, and although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1) - Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

614 tween sub-clans or villages.(1)
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Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

614 423 518 626 754

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

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In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higatura Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

241 Later again, in line with an agricultural officer's recommendation,
472 he encouraged each son to plant individually. He proposes that his
512 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

492 D has no younger brothers, but he did have a government loan
241 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour [654] occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

the price at which he bought (e.g. a knife bought at 87 cents would be sold at 90 cents).[1]

Irrespective of profits, stores are both a convenience and a source of considerable prestige to the owner.

No records of customers were kept, but from casual observation it appears that customers are either persons who are unrelated and not resident in the same locality or close kin and close friends. The more distant relatives and the residents in the owner's village often go to considerable trouble not to buy from the local entrepreneurs. They justify their avoidance with stories which depict the trader in a personally unfavourable light, though some point to the lower prices and wider range of goods in Popondetta, and others to the advantage of buying from local co-operatives which provide rebates and benefit everyone, rather than from private stores with higher prices and individual profit.

These arguments should apply equally to the customers of the entrepreneurs, but they do not seem to in practice. I assume that this is due to the fact that the entrepreneurs do provide credit, assistance with life crises and other advantages (including the attraction of close association with men of prestige) to very close friends and kin, but decline to provide these privileges to more distant kin and neighbours. These people feel entitled to special consideration and are affronted by refusal. C, the trader with the largest turnover, built his store in a village other than his own[2] and most customers come from that and three neighbouring villages. Most people of his own village of Hanau buy from a co-operative store further away. A's main clients are plantation workers, as most of his fellow villagers use the co-operative even though it involves a long walk. D's store was located on a main road until a re-routing of the road left him without his main source of clients - people walking along the road.

Since 1964, D has been buying cotton piece goods which his wife makes up on her sewing machine into skirts, dresses and shorts for sale in the store. Demand for these goods is greater than the supply and a girl is now hired part-time to assist with sewing.

A, B and D sell small quantities of garden produce or hunted meat at irregular intervals at the Popondetta market.

A undertakes commercial processing for other persons, having established a cocoa fermentary with the help of agricultural officers in 1962. The building cost $500 from his savings and an

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[1] Having limited experience in handling money most of the entrepreneurs round prices to the nearest ten cents as far as possible.

[2] The other three all have their stores adjacent to their homes.

Security of tenure

423 241 [182] [829] It is often suggested that the main benefit from tenure conversion is the provision of security of tenure for villagers who wish to plant cash crops. The Ombi-Tara people, however, did not consider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocoa and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds. [578] Fourteen people did mention that conversion and the introduction of cement and wooden corner pegs would help to prevent disputes; but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 311 361 [829] Most Ombi-Tara people saw consolidation of their previously scattered holdings as the main benefit from tenure conversion.[2] Many people drew finger diagrams on the ground to explain how conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 'communal ownership', which is sometimes applied to indigenous land tenure, is misleading and must be qualified. New Guinea land tenure may best be understood as a pattern of rights of usage. For example, a man who is the first to venture into a patch of rain forest and mark distinctive trees thereby acquires the right to hunt in that forest area; if he clears the forest he acquires the right to cultivate that land. These rights are inherited by [428] his descendents. Thus individual adults control the rights to hunt, forage or cultivate on all land, and, incidentally, to fish in the streams which traverse their land. But each individual [619] is also a member of a closely cohesive parish[1] group, to which he owes absolute loyalty. The parish group, through its sub-groups, clans, lineages, and individuals, controls a certain area of land. It was inconceivable in the traditional days of inter-parish warfare, that any land should be given or sold to the neighbouring enemies. Under traditional custom, no individual could sell freehold title to land; at most he could permit the temporary use of land by a stranger on the full understanding that he as a lender retained the permanent rights.

[578] New Guineans are just as conscious of their individual rights to the use of land as we are, and many disputes occur because of real or imagined infringements of a person's rights. Land boundaries in New Guinea are rarely marked by fences. More commonly they are indicated by distinctive trees, rocks, or very often by bright-leaved shrubs such as croton or cordyline. Land holders have what is, to us, an almost uncanny knowledge of the location of their boundaries. A villager can lead you unerringly through thick secondary growth to his boundary mark and can point out, for instance, the almost imperceptible rise in the level of the land marking the line of a pig-fence, now completely rotted away, which bounded his swidden several years earlier.

[1] The term 'parish' may appear unusual in this context. It is used in the sense in which it has been adapted by Dr. H. I. Hogbin (1953) that is, the largest group of people forming a political unit. Hogbin denies the existence of tribes in New Guinea (with the possible exception of some of the large highland groups). He applies the term parish to numerically-small political groups.

[P 2-87]

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his 602 relatives for heavy work such as the felling of 464 big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, by pitting traditionally conservative [578] people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be- 177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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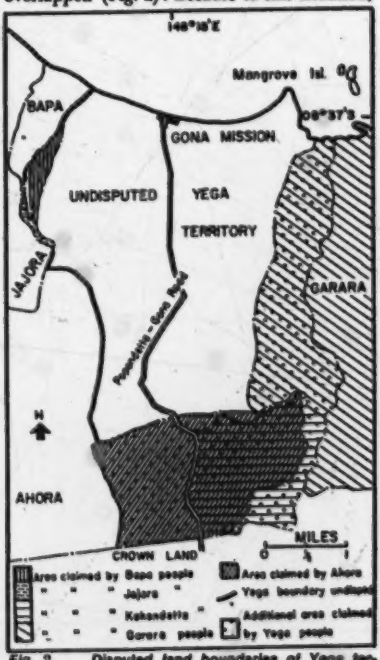

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

[P.6-A]

a Land Titles Commissioner today has the difficult task of adjudicating the rival claims of two or more groups to the same areas of forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

The Yega parish is composed of eight named, exogamous, localised clans most of which are divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan has a different totemic emblem which serves as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

An abbreviated table illustrating the Yega social structure is given in Table 1.

[P.6-B]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

[158] It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. [684] Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some [961] domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

731 This general irritability was carried back into the villages, where worry was not very much less than in the camps, and even the degree of daily control by European 657 authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be [578] better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In
[114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu
[659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

[578] Both these shifts were connected with topographical relation-
[628] ships and social relationships outside the village. The first of them, in 1952, seems to have been precipitated by a quarrel between the Tiwanu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a
361 superfluity of reasons. Rimoldi was told of almost all the shifts
657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths
361 attributed to sorcery and because of quarrels between neighboring villages which were too close together for comfort. I witnessed
[628] one shift after a death of an old man where sorcery was not
[754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his
[764] ghost. The population of this village shifted to nearby Hohorita,
[775] a move which was in any case favoured by the government. A reason that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
[797] It was characteristic of both the church and the government council organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[A] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoge, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
578 village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Avala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Hununi in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside them. [578] There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring [574] villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than [754] transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

657 731 423 245 It is a ticklish question whether this rule similarly applies to coffee trees which differ from the traditional kind of trees in two ways: first, in that they occupy the whole of a piece of land and not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Musumi is one place where they were issued.

657 731 423 578 629 After planting their coffee at Musumi, the Dapari people began to depend for their subsistence gardens on land they owned in their own natal district, which was an hour or so from Musumi. All the Dapari people, except for the Jegase clan group of Dapari, went back to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Musumi. Their position was more favourable, as they owned land near Musumi; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Musumi man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Musumi from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Musumi relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Musumi people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Musumi) and that Dapari had offered to sell the coffee stands to the Musumi owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.
The first lesson we may draw from this example is that evidently,
473 resettlement villages are liable to be unstable unless the resettled
group has solid land rights close to the village. Thus, the resettle-
[578 ment of a group of Garoubi people in Sivepe in 1966 may well be stable
628] because these people own land within a one-mile radius from Sivepa.
But the resettlement of Dapari people in Humuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Humuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepe people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Humuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to
agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
of their own. This process started almost at once and continued for
657 more than five years. I have already stated that in Sivepe this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepe, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,869, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepe could give only limited
help in the way of lending gardening lands and marauding pigs were

794 and sang hymns and gossiped. Once a week, or at least as many weeks
575 as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

[554] The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

794 The mission women now withdrew from the club and asked for their
575 membership fees back, which they were given. It appeared that their quarrel was not so much with Sivepe but with the Sasembata village
● 578 women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the
628 mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[462] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

535 About three months before our departure from Sivepe, a mission
[123] teacher told me that his wife intended to teach Sivepe women a coastal
[197] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
777 the concern of our present project. It is very clear that some basic notion of Christian montheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

777 I have referred several times to the tendency to place ancient
[788] ritual under the protection, so to speak, of the new God. Rituals
[775] connected with the taro cycle were performed at Christmas and Eastertime, perferably on the mission station. While the beliefs about the ghosts

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepe, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

To what extent can one speak, in these villages, of factionalism?
121 This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt
[578] to take sides along this predictable lines of division. Among the Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepe, were hardly ever repeated from one occasion to the next. Factionalism in Sivepe was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

CHAPTER X: Esprit de Corps

621 731 The problem of developing group consciousness in a new village, created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Siveps in 1966, though on a much smaller scale. Sivepe, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial [361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 [431] In the daily presentations of food between residences, these families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange [578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 684 On the other hand, the hazards were obvious when one looked at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[726] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
[628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,"
24 but more often it was "simply the lax method of horticulture
[578] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend
361 to occur in exceptionally dry southeast winter seasons. During
261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
731 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[499] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influ-
361 ence. Over against this greater dispersal, the people have
571

731 36 [657] to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

731 36 31 [161] The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

731 152 [578] Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamington slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

731 liberately endeavored to keep everyone busy, and the men
659 spent much of the time in work gangs (e.g. Monday, Tues-
361 day and Wednesday were usually devoted to house-building;
199 Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

731 2. Reasonable law and order was being maintained in the
659 new settlements, under the eye of a considerable force of
578 the Papuan Constabulary sent in for the emergency. Oppo-
[625] nents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

731 3. Not least among the uncertain factors is that of sorcery.
754 According to those who manage the settlements, fear of
514 coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

731 4. On the economic side, no sound basis seems in sight
361 for establishing large permanent communities in the com-
241 prehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more
[242] intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As
731 in socio-political affairs, the responsible organization and
659 leadership would in general have to be provided from out-
[241] side, with the dependence relationship that this implies.
[199] Government might have to continue helping any large community for an indefinite period, as with the mechanized
731 agricultural production it is introducing at the Ilimo camp.
231 In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

829 felt toward the exchange partner, fear of the trouble he might
511 cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

[578 Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until
731 peace is made by the offer of an appropriate gift and feast. The
784 anger of Sumbiripa does not completely fall into this pattern be-
776 cause here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god.
829 In the framework of Orokaiva thought, serious anger is normally
578 regarded as righteous, at least among persons standing in a regu-
754 lar exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

829 In such a dispute it is of course relevant which side has broken a
578 rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

829 Self-accusation and self-inflicted injury are a regular part of
627 this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

upon the man or woman who is being 'transferred', but as the result of the transaction this claims passes to *alter*.

The most familiar example of such a transfer is that of a woman who is 'given' by her brother to her prospective husband. When Lévi-Strauss developed the exchange or 'alliance' theory of social structure, he mainly discussed this type of transaction, whereby a social relationship between two male partners is created by the transfer of a woman from the control of one to the other. It is clear, however, that for every man who marries, a new relationship is also created between women who become sisters-in-law. In a very significant sense, the wife has taken the man from the sister. The Orokaiva acknowledge this aspect in two ways: by the gift of a pig made by the wife to the sister, and by the term of address *bi* (= penis) used between sisters-in-law.

We may thus see social structure as the product of a web of mediation. The usefulness of such a concept depends very much on the extent to which these intermediaries are institutionally involved in dealings between partners. Among the Orokaiva, their roles as intermediaries in exchanges between men are well articulated. As wives, as sisters and as mothers they link the very small patrilineal kinship groups into social units of a viable size. The system of marriage is a rather involved one, containing elements of restricted as well as of complex generalised exchange. Once this system of marriage is fully understood (Ch. X), the basic workings of Orokaiva society stand fairly clearly revealed. The study of Orokaiva exchange would not be adequate, however, without a brief consideration of the independent friendship network and the system of ranking, especially as it has affected recent Orokaiva-Australian relations (Ch. XI).

We thus return, though with a slightly more specific methodology, to Mauss' concept of exchange as a 'total phenomenon', in the sense that we posit the interrelations of notions of exchange occurring at any level of conceptualisation, social and non-social. It is in the very pervasiveness of such notions throughout the culture that we find evidence for its dominance in Orokaiva thought and institutions and for its power to mould social life.

REFERENCES

1 I refer especially to the discussion of the 'starting mechanism' of exchange in Gouldner 1960 and to Blau's (1964) criticism of Gouldner. My own view is that the approaches of these two authors are complementary.

2 Cunnison's translation (1954) suppresses in many passages Mauss' concern with economic and psychological factors. Compare Mauss: 'Quelle est la règle de droit *et d'intérêt* qui, dans les sociétés de type arriéré ou archaïque, fait que le présent reçu est obligatoirement rendu? ' (1966:148) and: 'In primitive or archaic types of society, what is the principle whereby the gift received has to be repaid? ' (Cunnison 1954:1). Compare also: 'ce type de droit et d'économie' (Mauss 153; Cunnison 5); omission by Cunnison of the last paragraph of Mauss 173; 'ces concepts de droit et d'économie (Mauss 267; Cunnison 70); 'en règles de droit, en mythes, en valeurs et en prix' (Mauss 275, Cunnison 77), etc. Recent criticism of Mauss by economic anthropologists sometimes reads as though it is based on translation rather than original.

3 For Lévi-Strauss' discussion of the notion of mediation see *La Pensée Sauvage*, Ch. VIII and *passim*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems.

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive.

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility.

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law.

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

461 When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gaiha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

[805] [241] [829] [581]

241 773 824 One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

613 Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which [428] patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

596 The basic condition for inheritance is that there should be a continuing filial 428 or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

423 The land transfers so far discussed were conducted between agnates and largely 425 prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to [428] his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

423 The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 425 104 parcels of land belonging to the Jegase clan have been so transferred 613 (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted 614 by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

423 Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most 425 commonly full sisters and full daughters, but there are many cases involving 583 classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a [593] neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). [582] There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage. 423 425 583 582

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship. 423 425 [613] [166] [571]

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence: 121

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status. 423 583 425 [558]

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him. 423 431 736

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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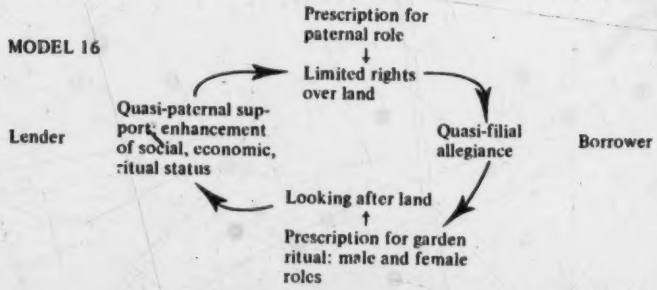
MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

[428]
[431]

The data I shall discuss here were reported in Crocombe's and Hogbin's study of Inonda (1963) and supplemented in a brief study by myself. A leading man from Tandai'undi clan (Seva village) gave most of the present Inonda domain to a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following generation Tandai'undi, according to the custom (of patrilateral cross-cousin marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

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[583]
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In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 But this handsome young man, also, is pierced by the girl's breasts and killed.
824 The brother buries his brother-in-law, then kills his sister and buries her beside
539 the other grave.

After a mourning period the brother takes his wife to the two graves. They find a cocopalm in full bearing above the sister's grave. An *areca* palm has grown over the grave of the young man. Heaps of dry nuts are lying on the ground. That is how these two palms originated. He says:

> Wife, as we come close, we see coconut and *areca* growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry *areca* nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune (*embavo*) and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the *areca* growing on *dambo's* grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them, they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, cocopalms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths (*peperuma*) which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I began to understand that my sister had killed the men I had carried to their graves and buried. . . .
>
> When a man has collected *areca*, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the *areca* is a girl; for this reason, girls give *areca*.

773 On the level of social structure, this myth is concerned with the Orokaiva
824 institution of sister exchange marriage. Though such arrangements were not very
539 frequent among the Orokaiva (I would estimate about 5 per cent of all
582 marriages), sister exchange marriages are strongly idealised, as I have shown elsewhere. In this myth, a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can sleep safely, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister exchange marriage.

773 On the level of social exchange, the myth depends largely on rather complex
824 and condensed ideological statements made by the hero. I have translated the
539

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

principally referring to classificatory systems built up from such metaphoric oppositions. When I use the term 'metaphoric gift', I mean a gift about which we are told in a story, the message of the story being that gift and recipient are metaphorically identical. The point of the story is to establish the symbiosis of men and women, the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bullroarer, golden apples, mirror, knuckle-bone, tuft of wool) which de ined his nature. In the same way, in Orokaiva myth, men are given a coconut nature and women an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognised as a man because the palm germinates slowly and the fruit comes to maturity slowly ('it comes slowly'). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. *Areca* may be recognised as a girl because it germinates and comes to maturity quickly – the fruit matures faster than the coconut. Likewise woman is quick to be sexually aroused and to feel desire for a man. In this analogy the botanical facts are evident but the psychological generalisations describe no more, perhaps, than Orokaiva role expectations.

We may clarify the myth and its philosophical message to a certain extent by an analysis on the level of exchange cycles. The fundamental cycle is obviously the following:

MODEL 29

This is the model of sister exchange marriage where two men become brothers-in-law by each giving their sisters (*du*) to the other in marriage. If we now remember the identification between woman and betelnut (*sā*), and the social relationship which is considered normal between *dambo*, we may substitute as follows:

MODEL 30

We thus derive the rather interesting conclusion that the sense of an exchange of betelnut between men is that they are symbolically exchanging sisters. This is a rather bold conclusion which is best left as a speculation to be explored in later

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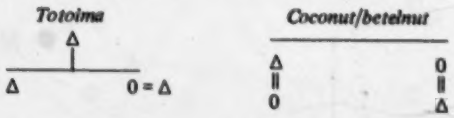
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 824 539 enquiries. The same applies to a second conclusion that may be derived from the myth: that a man who gives a visitor coconut to drink is symbolically giving his own sexuality.

582 6. *Analysis of the Myth*[4]

539 773 As these implications of the model may arouse scepticism, a more analytical study of the myth seems desirable. One procedure which may lead to clarification is to compare the coconut/betelnut myth with the myth of Totoima discussed in previous chapters. The structural homology between the two myths is obvious enough. In the Totoima myth a *man wittingly* killed and *ate* a *son*, was transformed into *pig meat*, and distributed to mankind. He *did not intend* to make any gifts nor were any intended for him. In the coconut myth a *woman unwittingly* killed but *did not eat* a *spouse*, was transformed into *coconut*, distributed to mankind. She *intended* to make a gift and a return gift was intended for her.

We may isolate three distinctive features. On the ecological level we find an opposition between two types of symbiosis. The Totoima myth shows a predatory cycle: pig eats taro; man eats pig; thus strengthened, man causes more taro to grow. The coconut/betelnut myth shows the association of two plants always growing together, such that the presence of the one may be thought to stimulate the growth of the other. On the social level we find an opposition between the kin relationships holding between the principal participants. They may be represented as follows:



In the Totoima myth, the critical transaction was between the senior and junior generation, while in the coconut/betelnut myth it was between the male and female characters. Psychologically, the opposition was that in the Totoima myth the protagonists were motivated to kill and eat each other, while in the coconut/betelnut myth they were motivated by sexual love.

Both myths are concerned with exchange, viewed ecologically, socially and psychologically, but in the first myth exchange is diachronic, whereas in the second it is contemporaneous. Where exchange is diachronic, B cannot reach the fullness of prosperity without the death of A, a process symbolised ecologically by predation, on the social level by intergenerational competition and on the psychological level by the desire to kill the father. Where exchange is contemporaneous, B cannot reach the fullness of prosperity without the simultaneous prosperity of A, a process symbolised ecologically by plant associations, socially by the marriage relationship and psychologically by conjugal love.

Diachronic exchange is, on the ecological level, a familiar and empirically verifiable fact. On the social level, however, the competitive and negative aspect

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

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It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

729 577 626

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

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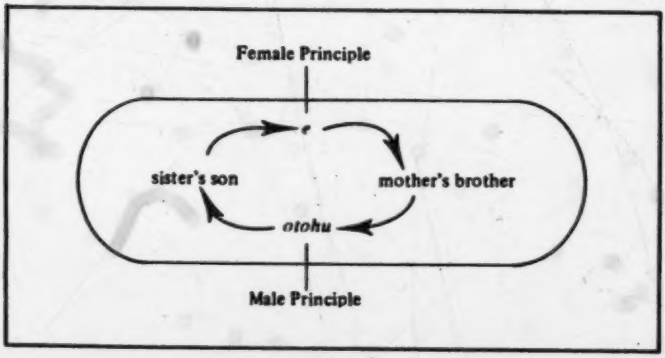
It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20), we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

A [See p. 135, Cat. 431--Analyst]

As an example of the operation of this model, we may summarise the discussion concerning the sacred flutes and the *otohu*. On the mythical level there is a binary opposition between a male and a female principle. On the social level there is a relation between mother's brother and sister's son, which is mediated (*a*) by the mother; (*b*) by the gift of an *otohu*. On the technological level, there is opposition between a male and female initiation flute (respectively *otohu* and e = mother). These complex interrelations are shown with great economy in the following diagram:

MODEL 34



The objects of mediation under discussion in the preceding chapters have been mostly material objects, but the model is by no means confined to these. It is equally applicable to social objects of mediation. Indeed, in model 34, the word *e* appears in a double sense: as one of the two initiatory flutes, i.e. a material object, but simultaneously as 'mother', a social object. In the taro sociogram, we introduced a series of human mediators between a set of distant but equal exchange partners (model 20).[A] In discussing the *aguma*, we found the same pattern between a set of distant but unequal exchange partners (model 31).[B] Similarly, we may regard the mother's brother as mediator between initland and the spirit world.

Some of the most important social exchanges are those which are mediated by a woman who is a sister of one of the partners and the wife of the other. We have already looked briefly at this type of exchange when discussing the coconut and betelnut myth (model 29).[C] In thus equating woman with an 'object of mediation' we are not thereby postulating any essential inequality between men and women except in as far as the Orokaiva happen to be patrilocal and patrilineal, so that it is the women, not the men, whose sexual role places them in a position of mediation. We are merely suggesting that two persons standing in a relation of *dambo* mediate their social relationship through a woman with which each, in a different way, is identified, one sexually and the other non-sexually. The asymmetry is balanced out by a counter-prestation on the part

A [See p. 182, Cat. 881--Analyst]
B [See p. 135, Cat. 831--Analyst]
C [See p. 171, Cat. 824--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 of the husband' who either gives a woman in exchange (direct marriage
121 exchange) or else makes some kind of reparation for having deprived his
562 exchange partner (generalised marriage exchange).
582

REFERENCES

824 1. Erikson, describing 'the beginnings of identity' in the adolescent, comes
571 rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

881 2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

000 3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE X/1

VILLAGE POPULATIONS AND CLAN ORGANISATION

Number of villages investigated: 15

Name	*Population*					
(*a*) *One-Clan Villages:*						
Ajoro	50	Tandai'undi				
Inonda	42	Andiriha				
Irihambo	30	Oripa				
Sombou	70	Pangaripa				
Kakita	24	Hatopa				
(*b*) *Two-Clan Villages:*						
Binduta	100	Jegase	Usohu			
Garombi	132	Sorovi	Betu			
Hamburata	91	Ehirari	Ohuru			
Kongohambo	96	Pugege	Ameti			
Sivepe	137	Jegase	Seho			
Torogota	65	Jeipa	Jaumbi			
(*c*) *Four-Clan Villages*		ve/ih	ih/av	av/so	so/ve[1]	
Hohorita	348	Oripa		Besupa	Sehopa	Horeppa
Sasembata	162	Garoha		Pekuma	Ato	Takone[2]
Soroputa	200	Seraopa		Jaja	Java	Timumu
(*d*) *Multi-Clan Villages*						
Kiorota	429				12 clans[3]	

Notes

[1] ve/ih etc. are made up of abridgements of the Orokaiva terms *veari, ihane, avunu, sose*. for which see Chapter X, 5.

[2] No marriages between Seraopa and Jaja are permissible today, but both clans marry preferentially into the Hamburata clans.

[3] This village was settled in 1958 by refugees from the Mount Lamington eruption who previously occupied a number of smaller villages, according to the following pattern:

Homumuta	1 Haripa	2 Penonupa	
Isivita	3 Jegase	4 Berekipa	
Bosisepa	3 Jegase	4 Berekipa	11 Seraopa
Tambore	5 Oetopa	6 Ahungata	
Taremuturu	5 Oetopa	7 Pusaripa	
Pinda	8 Isivupa	9 Juvaripa	
Kandata	10 Jepuripa		
?	12 Omborapa		

614 Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

614 824 The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting [773] access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants [553] of plants, but that the ancestor was a man bearing the name of that plant. Clan and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

614 824 To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging [582] and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and [611] mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*. In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present.

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions.

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*.

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like.

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 led to serious quarrels, especially if the girl had been kept by her parents or
602 brother for an exchange marriage. Usually, these quarrels were settled in due
578 course upon payment of a suitable bridewealth and sometimes by a subsequent marriage for which the abductor's family provided the bride. Williams comments:

> The remarkable gestures of hostility against the husband's people which sometimes characterise Orokaiva marriage, i.e. the attempted dragging away of the bride by her people, the humiliation of the bridegroom, the damaging of his village and the bellicose demonstrations at the taking over of the *dorobu* (= bridewealth), all properly belong to the irregular methods of capture and elopement; they are the aftermath, the retaliation (1930:149).

583 The third and fourth marriage forms distinguished by Williams are purchase
584 (i.e. obtaining a wife in exchange for *dorobu*) and exchange *mine*, i.e. an arrangement whereby two men each make a true or classificatory sister available to the other). It seems that Williams did not differentiate clearly between modes of obtaining a wife and modes of making a valid marriage contract. One might obtain a wife in a number of ways. Certainly, capture and abduction seem to have been the most frequent at one time, but there were also child betrothals; long-standing preferential arrangements between villages; romances leading to sister exchange and marriages to seal political alliances. There was the whole gamut between choices made by lovers without parental approval and choices (probably relatively less frequent) made by parental fiat. But there were only two ways of making a valid marriage contract, namely *dorobu* and *mine*. Williams himself comes very close to this view towards the end of his chapter on 'Marriage' (1930: Ch. IX). He also maintains, no doubt correctly, that in Orokaiva thought *mine* appears as the 'ideal', i.e. preferential, mode of contracting a marriage:

> It appears that marriage by exchange is preferable to marriage by purchase – at least in the eyes of the marriageable man, and probably also in the eyes of his elders who sympathise with his desires. We may perhaps go so far as to say that the actual buying of a wife only takes place when circumstances make present or future exchange impossible (1930: 149).

This seems to place Williams' theory firmly on the side of Guiart's theory of marriage in New Caledonia: exchange marriage becomes the preferential mode, the 'model', whereas marriage 'by purchase' is demoted to the status of an ecologically caused departure from the 'model'. In this chapter I shall argue that Williams' Orokaiva theory reifies the folk model and conceals some of the complexity of Orokaiva social structure.

4. *Elements of Restricted Exchange*

582 Marriage rules related to the principle of restricted exchange are actually more
583 numerous than Williams supposed. They must be briefly reviewed before we can argue cogently that the principle of restricted exchange does not suffice to account for the rules governing the total Orokaiva marriage system. Williams was entirely right in supposing that the Orokaiva have preferential sister exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

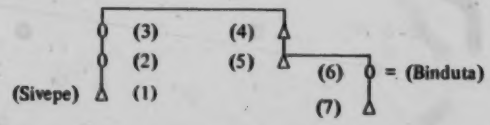
If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 Within the village, two different principles prevail according to the presence or absence of a generation difference. Where a generation difference exists, opposite sex linkages are always expressed in terms of address. A mother's brother is always called *epe*. The *epe/ahije* bond is based on mutual affection and voluntary support, whereas the *mama/meni* bond is based on strong mutual obligations and an authority/obedience relationship. On the other hand, collaterals of the same local clan group will never call each other *simbo* even though biologically they may be cross-cousins. They use sibling terms and are strictly bound by exogamy rules. In a multi-clan village, collaterals of different clans will sometimes use sibling, sometimes cross-cousin terminology. Here the criterion is whether the persons concerned shared a plant emblem (*hae*).

582 614 824 A rule that was expressed to me often and forcibly was that people should not marry if they share a paternal or maternal *hae*. The relationship of a person with his *hae* is one of complete identification. If a man says that his *hae* is *sasaha* grass, he means that *sasaha* grass is his 'ancestor' and that he himself *is sasaha* grass; i.e. he is completely identified with it. If two people are identified with the same plant in this way they are siblings; they cannot possibly be anything else.

601 602 In general therefore a *simbo* is someone with whom one does not share a *hae*. This rule obtains whether or not *ego* and *alter* live in the same village. A study of actual kin relationships between *simbo* in different villages bore this out. A typical *simbo* relationship would be between *fafasiso* children/*famobrososo*. The *fafasi's hae* would be transmitted to her son, but not to her son's children. The latter would therefore share no *hae* with the grandmother's natal family. Some *simbo* relationships are far more distant than the one quoted here. A typical example is the following:



Here the *simbo* relationship links families of two villages, Sivepe and Binduta. The genealogical pattern may be accounted for by extremely strong attachment between siblings of opposite sex (*du*), and for the tendency for this strong attachment to be reproduced in the next generation. The genealogical connection between *simbo* often passes between two or more of these *du* linkages. A person thus tends to have numerous *simbo* scattered in many villages with some of which has own village may never have intermarried. Even a limited amount of intermarriage between villages may set up a good number of *simbo* links between them, as the links of filiation and siblingship to which the genealogies refer are often merely classificatory. For instance, the individuals numbered (3) and (4) in the above diagram were not true but classificatory siblings.

It will be noticed that the *simbo* category can be defined only by a series of negative rules. It is a set of distant kinsmen which remains when positively

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

defined sets of consanguines have been excluded. Marriage with the *simbo* cannot therefore be regarded as following the principles of an 'elementary' system of kinship. In practice it does not take many generations before the intermarrying groups forming a 'reciprocating pair' are married out, i.e. unable to supply any further partners to each other. In Sivepe, Jegase and Seho, even with only seven current intermarriages out of sixteen households and a reciprocating relationship of less than three generations, seemed to have nearly exhausted all marital possibilities. The difficulties of my interpreter, a bachelor belonging to the Jegase clan, will serve as an example. He was not allowed to marry the girl he loved (Seho clan) because she was a classificatory mother's sister's daughter. But there would have been equally grave obstacles if he had wished to marry into four of the remaining six Seho households, as the girls of these households shared either his father's or his mother's *hae*. The rule prohibiting marriage with a person sharing a paternal or maternal *hae* has an interesting randomising effect that should be briefly discussed. At least forty-two *hae* were used in Sivepe. The persons sharing these *hae* were by no means always close relatives. They might be wives of Sivepe men, and born in a quite different village. Again, some people had many *hae*, four or five was quite common. In these circumstances the Orokaiva rule could never produce a stable system of four or more sections, as any section might at any time adopt a *hae* which would prevent marriage with another section. Furthermore, any portentous event, such as a woman falling to her death from a certain species of tree, would lead to the introduction of a new *hae* which might be adopted by several persons for reasons of sentiment or religious awe rather than the regulation of future marriages. Finally, individuals not infrequently transmitted maternal *hae* to their children, especially if they resided matrilocally or uxorilocally.

We conclude therefore that the rule of marriage with the *simbo* resembles a game of chance in which the odds become progressively more unfavourable, though the rate at which they become worse is itself determined by chance. In practice, therefore, every village played at many tables at once, not only because of ecological circumstances, vicissitudes of war and the need for alliances, but also because the rules of marriage themselves make no other strategy possible.

7. *Sex Affiliation*

It is an understood principle that under a system of restricted exchange the matrimonial destiny of brother and sister lies in the same kinship group whereas under generalised exchange it is different. Williams' data on the Koiari, as analysed by Lévi-Strauss, show that this tribe strongly emphasises difference of matrimonial destiny by the device of giving the brother a paternal and the sister a maternal clan name. Among the Orokaiva the principle of sex affiliation is likewise utilised, though far more feebly, to convey a simple message. The firmest evidence is found in kinship terminology and in the theory of paternity.

For the purpose of componential analysis of terms used in addressing affines, one dimension of contrast must be added to those given in the previous section. We shall distinguish sister exchange and *dorobu* marriages by the following code:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange alone, nor by rules of complex generalised exchange alone. If the Orokaiva had only restricted exchange, they would not be periodically forced to look for new groups with whom to intermarry. If the Orokaiva had only complex exchange (as Meggitt seems to believe is the case for all people of the New Guinea Highlands, viz. the Introduction to Glasse and Meggitt, 1969), then there would be no explanation for the various forms of preferential marriage that are still practised and the tendency to establish forms of dual organisation.

From one viewpoint we may say that the Orokaiva system is *'une sorte de faille de l'échange restreint'*, because the Orokaiva are forever trying to re-establish such a system. From another viewpoint it is true that, having entered into new alliances and thus moved in the direction of a system of generalised exchange, they always attempt as soon as possible to convert the new alliance into a moiety system. The fear of setting up alliances with new groups is still very strong today, in spite of wide experience with travel among foreign tribes when men take up wage employment outside their own district. They still marry wives preferably from their own village, or one of the villages with which reciprocal arrangements exist. There was not a single current Sivepe marriage that fell outside this pattern.

It is certainly curious that the chief effect of white contact upon the marriage system was to emphasise the tendency to the formation of moieties through enforced village consolidation. One would have expected that greater physical security, greater mobility and the contacts brought about through labour migration would have widened rather than narrowed the men's matrimonial universe. One imagines that processes of social and economic development must ultimately make an ideology of restricted exchange obsolete. Meanwhile, however, we observe mainly a movement in the opposite direction. Not only has government pressure unintentionally increased the opportunities for village endogamy, and moiety formation, but the combined teaching of government and mission has deprecated elopement marriages, and penalised the showing of hostility between affines. The war expeditions which led indirectly to so many marriages were stopped. The concern with pacification on the part of the authorities led to an even greater preference than previously for 'safe' marriages and therefore a narrowing of the marriage universe. My records show more marriages with partners from distant villages prior to 1915 than can be found over the last generation. It is therefore complex generalised rather than restricted exchange that was (unintentionally) discouraged.

10 *Conclusions*

This examination of the Orokaiva marriage system indicates that membership in corporate groups (the *hae*, the local clan group and the village) all have a significant influence on marriage choice, not only negatively, by prohibiting certain partners under a rule of exogamy, but also positively, by pursuing from time to time the establishment of forms of dual organisation. Certainly every individual is more or less free to choose between the two existing systems – direct exchange and complex generalised exchange. There is, however, a constant feature on the level of group relationships, namely the existence of reciprocating pairs of groups. Another constant feature is the temporary nature of these

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

582 614 583 reciprocal relationships which must collapse, due to the operation of the rules, after a few generations. This collapse may either take the form of a separation between the two groups or of a fusion into one local clan group. I have shown that the genesis of many Orokaiva local clan groups may be found in this process.

602 583 614 In the terms used in previous chapters one may categorise sister exchange and the women exchanges in reciprocating pairs of groups as phases of cycles of positive reciprocity. On the other hand, marriage by capture and elopement is a phase of a cycle of negative reciprocity. The long series of prestations offered by the bridegroom and the humiliations suffered by him have the effect of shifting the social relationship with the affinal group into a cycle of positive reciprocity. We therefore do not need to suppose that the bride is regarded as symbolically equivalent to *dorobu* as some African analogies might suggest. *Dorobu* is sufficiently explained as a magical device whereby a reversal in the mode of reciprocity (from negative to positive) is effected. The full range of gifts symbolises the wide scope of the resulting social relationship.

The theory assumes a profound dependence upon the affinal group. This dependence is in fact emphasised in many social, economic, political and religious situations. Ideally, an affinal relationship leads to the establishment of a pair of reciprocating groups. In the light of this understanding, it becomes clear that the exchanges analysed in the preceding chapters are consequences of the group relations set up by the marriage system. In chapter V, I showed the prevalence of a principle of dual allegiance resulting from the inheritance of land originally belonging to the mother's brother. I showed that a critical situation arises in the third generation when the uterine family does not renounce its residual rights but the social relations which give reality to these residual rights, viz. dual allegiance, becomes problematical.

583 614 The system would appear, indeed, to be so automatically productive of crises that one might wonder how it could ever have been maintained. It becomes much easier to understand if we recognise that the daughter of the marriage is expected to marry in the mother's brother's village. The land can thus revert to the people of the original village by a series of two uterine transfers. The system looks a little like the 'rope' of the Mundugumor (Mead 1935), and the latter may well have a similar explanation. It has a clear political utility as the dual allegiance pattern forms the basis of Orokaiva political alliances. It is buttressed by religious beliefs, as the spirit of a male child may be derived from either an agnatic or a uterine ancestor, by the process of reincarnation to which I have already referred.

Ultimately there would appear to be two possible outcomes of such hereditary land gifts: fusion of the reciprocating pairs of groups into one local clan group and separation on more or less hostile terms. These two outcomes correspond to the two modalities of the marriage system. The hostile modality is not a *failure* of the system but a natural and accepted part of it. Thus, the frequent migration of groups, as evidenced in Sivepe and many parts of New Guinea, should not be regarded as purely adventitious, but is structurally determined as part of a system which, as we have seen, could not work over a long period with a static population.[4]

The frequent exchanges of cooked taro reported in Chapter VI tend to keep

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

591 only through his father and even in this case his sister, her children and his daughter subsequently married in the village so he is now also living with other cognates and with affines. The 6 other men are living in the same village as their father's kin, but for 4 of them this is also their wife's home village, for another it is also his mother's village and the last man is co-resident with patrilineal, matrilateral and affinal kin simultaneously. In several cases certain people fall into more than one of these kinship categories in relation to 1 person. Six householders have sisters who have married within the village.[1]

In view of the fact that such a variety of relationships is found in this group, Hogbin's and Wedgwood's outline of Orokaiva local grouping, which is based on secondary sources, does not seem relevant to present day social organization in this neighbourhood. They regard the Orokaiva as patrivirilocal[2] (1952-4:64 ff.) and suggest that the parish or local political unit is an exogamous patrilineal group whose members were strongly united and unready to assimilate outsiders. Like Williams (1930:131-3) they mention frequent exceptions to this rule of post-marital residence yet seem to underestimate the degree of variability in the composition of the village and to overemphasize the solidarity of the unilineal group and the importance of the preference for patrivirilocal residence and of exogamy in localized patrilineal groups.[3]

Williams on the other hand says 'the Orokaiva organization very nearly approaches a bilateral system, though in theory it is patrilineal' (1925:407) and points to 'the laxity of marriage regulations'. Even in the small Aiga clan 'exogamy is not a hard and fast rule'; preference for intraclan marriage is sometimes expressed (1930:131-2). It may be thought a 'proper thing to keep the women in the village' - which Williams here implicitly equates with clan - 'in the hope of building up its population' (1925:408).

[582] [614]

621 A striking proportion of marriages are contracted between members of groups in close proximity. Data available for 35 marriages contracted over 3 genealogical generations by the householders of our sample, or by their parents, siblings or children, show that in 22 cases 1 spouse came either from the

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[1] Four instances of brother-sister exchange marriage among members of Sivepe were recorded (i.e., 8 marriages).

[2] Williams (1930:131) uses the term 'patrilocal'.

[3] The local organization in this neighbourhood seems closer to the category of 'osculant multicarpellary parishes' than any other (see also Hogbin 1963:32). However, we believe that the abstraction, if legitimate now is not the most informative.

583 is still transferred in most marriages, including those which take
177 place in a church.
799

Polygyny was accepted but probably not frequent in traditional
595 Orokaiva society. In spite of mission opposition there are still instances of polygyny but the great majority of marriages are
614 monogamous. Marriage outside the clan is considered preferable but there are numerous cases of marriage within the clan. The
582 village is not considered an exogamous unit. Marriages are usually patrilocal but this is not a definite rule (cf. Williams 1930:130-3).
[621]
591

III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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[1] See map, p.84 A

[2] See diagram, p.85 B and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

166 people were shifted about two miles eastward to a site adjacent to the wartime Inonda airstrip. People of several other villages (including Ajoro, the home of the Tandai'undi) were also resettled in the same area for safety. We will refer to this as Inonda II. During 1952, when the danger of further eruption was considered to be over, they shifted their village to Inonda III which was approximately a mile closer to their planting lands. In 1956 the people who had been temporarily resettled for safety at Inonda moved back to their respective villages. The local people then moved to their present site, Inonda IV, which is midway between their food gardens and their coffee plots.

Demographic and social structure

611 At the time of our survey, of a total population of 45 living in 8 households, 23 were members of the Andiriha sub-clan and 5 members of the Jego'undi sub-clan. The remaining 17 belonged to other clans. Of these 17, 8 were wives of members of the Inonda sub-clans and another 7 were relatives of these wives. The remaining 2 were the children of the sister of an Andiriha man who had come with their mother on a visit.(1) The number of persons in Inonda households ranged from 3 to 10 with an average of 5.6. There were 4 nuclear, 1 polygamous and 3 extended families.

The term 'clan' will be used to refer to the large patrilineal Orokaiva descent groups, each of which claims descent from a common ancestor but cannot trace it in fact. Each clan has a common name and a common plant emblem or erahu.(2) The clan name (frequently that of the founding ances-

(1) Of the 17 persons who were not members of the Inonda sub-clans, 4 came from the Kongaria clan of Urio village and 7 from the Oremba'undi and other clans of Hoborita village. This reflects the marriage links with these villages as six of the nine wives came from Urio or Hoborita. Marriage links with Urio are said to have been maintained for more than two generations, but those with Hoborita began in the last decade.

[582 628]

(2) Sometimes known as herahu or heratu. For a detailed description of the nature and function of the erahu see Williams, 1925. The erahu of the Andiriha clan is tigari, any plant tied in a particular knot.

tor) is suffixed by the term 'undi (the descendants of a particular ancestor) or haha (which is sometimes shortened to ha).(1) In conversation the Orokaiva often refer to the jawo (name) and speak of members of the one clan as embo jawo vahai (people of the same name). Alternatively, one's clan is frequently referred to as one's orope (men's house, as each clan group within a village occupied a separate men's house). More commonly, however, people used the English word 'clan' even when speaking in the vernacular.

Clans are usually dispersed and in the case of the Andiriha separate sub-clans are to be found in at least five villages. We use the term 'sub-clan' to refer to a local branch of a clan (i.e. within a particular village or a cluster of neighbouring hamlets). Orokaiva people use the terms quoted in the last paragraph for sub-clan as well as for clan, and distinguish sub-clans when necessary by adding the name of the village in which they are located. Clans and sub-clans are not exogamous but people express a clear preference for marriage outside the clan.

A sub-clan is usually divided into a number of lineages each of which has a name and an erahu which is distinct from that of the clan as a whole.(2) To determine a man's lineage it is usual to ask the name of his haije (the ancestor or ancestral name from whom he traces). Several persons were unable to trace their precise relationship to other members of the same lineage. Genealogies are short and no person could name any ancestor earlier than those who settled in Sambogo about fifty years ago; and only a few of those could be named. The lineage was said to be strictly exogamous but an instance of marriage within a lineage was noted. Some lineages are further

(1) These terms refer to descent groups as a whole. An individual male uses the suffix ge and a female je. Thus a man of Jego'undi clan is referred to as Jegoge and a woman as Jegoja.

(2) The plant emblems of the lineages are as follows: Joeumba'embo lineage, mimeo emblem; Oiwa'undi lineage, para emblem; Daraha'embo lineage, hoeve emblem; Jegotumo lineage, para emblem; Jego'undi lineage, dipona emblem. These emblems are all plants, whereas that of the clan as a whole is a particular knot, and any leaf, vine or grass may be used to form it.

628 Kohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepe people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro[A] and Musou, while Ajoro mentioned Inonda and Hohota (see Map VIII).[A]

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepe would be: Sasembata, Garombi, Avala, Hamburata, Korogombata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepe. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepe village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepe informants had first or second degree consanguines in Kongohambo, and only one Sivepe girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
● [582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepe where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepe men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepe and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togaba by Sivepe in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated
[731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practises what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of
● [582] residence. Within this area, marriages are contracted, cannibalistic
[721] raids do not occur and fights tend to involve comparatively little
[266] bloodshed. The circle of "intra-group morality" varies for every

628 village. Williams, in marking out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X). But "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepe. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[572] closely together than formerly. I obtained from a number of Sivepe
[582] men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepe I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
628 period, (the atmosphere of an evacuation camp was certainly not
619 a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepe and Soroputa or Agenehambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sausha; Crocombe and Hogbin describe Sausha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship
[574] context, by persons from another district. This was a group from Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[659] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

Though most of the contacts between village people and the office-bearers arise out of official roles, the local priest, the assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

613 in terms of a rigorous genealogical model, which is unfamiliar to Orokaiva, but in the sense that both are identified with the same plant or substance and thus very closely akin.

While clan affiliation is, in practise, determined by political [614] considerations, and a person may decide, upon calculations of family advantage, to assume a new clan name, the hae is utterly unpolitical and hae affiliation is a better indication of true blood relationship than membership of the same clan. In the hae, but not the clan, a kind of hierarchical classificatory principle may be found. To explain this, I should first point out that most informants I interviewed had at least four hae, two paternal and two maternal ones, and not infrequently I recorded as many as three paternal hae, and a total of five. Many people, when using a hae as a mark of identity, for instance on the road, to show they had been there, would actually use two hae plants. For instance, almost everyone in the district used the hae called sasaha (a grass), but if another hae, tandere, was added, a person finding these signs would be able to identify the owner as one of a quite limited group of people. For the purpose of this discussion, I shall use the word hae as meaning such a combination of emblems which sufficiently define identity. Such a combination of hae never defines an individual or even an extended family as usually several extended families share the same combination. But the patrilineal units thus defined are always smaller than a clan. To this extent, earlier authors are thus justified in calling them "lineages." It would be wrong to suppose, however, that the same combination of hae cannot be shared by fellow villagers belonging to different clans, for this is often found. Thus, those translating the word hae as "lineage" should be careful to avoid the implication that such "lineages" are segments of clans.

The population of Sivepe is very hard to classify into hae because I noted 42 hae in use, only 11 of which were shared by at least four adults. Nonetheless, the fact that two persons share a hae is often a valuable clue pointing to a close relationship that is of considerable social significance, but that might otherwise be [621] ignored as idiosyncratic. By far the closest bond that can exist between the members of different extended families is that they share [582] both a clan name and common hae. When such a bond exists, rules of exogamy are stringently enforced. These rules also apply, but less stringently, if two persons share the same clan name, but no hae, or if they share a hae but no clan name.

614 For our present purpose, it will be most convenient if we 621 classify Sivepe households according to the clanname of that person in the household who is what Fischer (1958) has called the "sponsor," i.e., the person by whose presence in the household the residence of the family in Sivepe can be explained. On that basis, 13 households and the bachelors' house may be classified as Jegase, eight households as Seho and six as Sorovi, as in the first half of 1967. It is desirable, however, to observe how rapidly this pattern of clan

affiliations has changed. In 1962, when Rimoldi did his survey of the community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

One striking characteristic of the village layout of New Sivepe is that all the Seho houses are grouped together on the same bende while the other bende of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss under the term "dimetric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which [591] is hardly more than four miles away. Both the Soroputa men had married Sivepe women; they were the only two families that were overtly [582] uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 The traditional pattern was for a man to marry a woman from 582 a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district 169 and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 Of the ten adult women living at Inonda, four came from the Sangara tribe, one from Kendata in the Sasembata district and the others 628 from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more [582] densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

177 the people. When the Japanese were gone he went back to his old village;
797 around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.

[582] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal [423] relatives if they stay in Inonda or Hohota. But gifts of land are [431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowl-
[754] edgeable about the holding of feasts and their magic and that he feared

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepe, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepe was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepe, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interpret a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepe was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepe leadership.

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [199] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hohorita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern [659] District immediately after the war, patrols were active in the Sangara district to amalgamate villages. A number of the people now living in Hohorita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hohorita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Sombou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Sombou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hohorita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since 629 the eruption form a rather tight cluster, quite different from the intersecting circle pattern I described for the Sasembata district. When a person in Sombou died, the whole of Hohorita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hohorita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hohorita while Sombou, with the assistance of Kakita, entertained the Uhuru'undi

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21)[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

871 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
●592 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly
582 after the eruption. According to this arrangement women who married outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A (See Cat. 116, p. 228--Analyst)

423 dance in Sasembata. But they enjoy very much better conditions than
591 are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was
582 so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried
731 on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level
165 of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully
177 practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason
184 for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the
621 co-residence of these many clans does make for a certain instability.
614 The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timunu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

177 In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara
731 than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

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[777]

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970). Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simba* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

562 through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother.
614 Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant
[582] emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

602 In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

121 In this essay, I shall present data on the friendship universe and show that
572 Orokaiva have institutionalized friendships of several types, some of which
602 are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

101 Between the districts where the data were collected, there are slight differ-
197 ences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata
601 district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

601 Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

431 But recruitment to this status is not restricted to specific categories; any two
572 people can become *namei*. These bonds provide some measure of control
574 over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

572 (b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-
[591] law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated
[582] to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit
[431] each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

123 Unfortunately, a male anthropologist cannot plumb the mysteries of this
572 relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

628 If two unrelated young women of district A are *jao* and marry in villages
572 B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 Relationships of this sort are sometimes intertribal as women abducted by enemies were in the habit of maintaining contact with each other, and such contact was inherited by their sons and daughters. When men belong to an *otavo* relationship (see p. 67 below), their wives address each other as *jao*.

602 (c) *Simbo*. Outside the cooperative group, social relations (even with consanguines) are spoken of as voluntary. This applies especially to distant consanguines and non-resident consanguines. Thus, the kin category *simbo* must contain many members, if purely genealogical criteria are to be used. If two consanguines share no plant emblem and are related through siblings of the opposite sex, they fall within the *simbo* category (the term is not precisely equivalent to cross-cousins). There is no limit on kinship distance, and persons recognized as *simbo* may be cousins several times removed. Often, it is impossible to reconstruct the genealogical connection. Like Orokaiva kin links, this one is simply inherited from generation to generation (bilaterally, in this case).

As one cannot get informants to list more than ten or twelve *simbo* families dispersed in a number of villages, one must assume that *simbo* links, like those of hereditary friendship, are often forgotten. On the other hand, one may always rediscover a *simbo* while on a journey, so that there is a reservoir of unused links that can be revived. In general, however, a relationship can be relied upon only if it is kept alive by periodic contact.

[582] The best translation of *simbo* would probably be: potential preferential [572] marriage partner. While the primary meaning refers to a cross-sexual relationship, the male *simbo* have a special kind of bond which fits neither the [584] cooperative nor the competitive exchange category. Literally, *simbo* is a marriage arrangement made when a girl has gone through the ceremony of menstrual seclusion and *kogumbari*,[8] but is not yet marriageable. Two aspects of the relationship between male *simbo* which are always stressed are the great love *simbo* have towards one another, and the rigorous taboo observances that are customary and strictly enforced.

The taboos resemble those practised between *dambo* (brothers-in-law); this is reasonable because if a man marries his female *simbo*, her brother becomes that man's *dambo*. The same taboos exist against mentioning the *simbo*'s name. All quarreling in the presence of a *simbo* is strictly forbidden. If a quarrel occurs nonetheless and *simbo* orders one to stop, one must obey or else pay a pig as compensation. If *simbo* touches any of one's possessions, one must give that object to *simbo*. A request made by *simbo* cannot be refused. This last rule about possessions and requests does not apply to *dambo*.

[881] 8 The term means decoration and is applied to face-painting, dressing the head with feathers, the wearing of shell and bone ornaments, armlets, fur arm pendants, and the like. A boy or girl is first decorated on the occasion of initiation. The dressing up is then usually done by an expert in the clan and paid for by the parents. For details see Williams, 1930; Schwimmer, 1970b, 1970c.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis,-and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study[2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

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began to understand that my sister had killed the men I had carried to their graves and buried. . . .

When a man has collected areca, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the areca a girl: for this reason, girls give areca.

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On the level of social structure, this myth is concerned with the Orokaiva institution of sister-exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5% of all marriages), sister-exchange marriages are strongly idealized as I have shown elsewhere (Schwimmer, 1970). In this myth a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can safely sleep, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister-exchange marriage.

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On the level of social exchange the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilizing one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and areca; (*c*) why the Orokaiva consider the coconut masculine, areca feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

613 Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which [428] patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

596 The basic condition for inheritance is that there should be a continuing filial 428 or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

423 The land transfers so far discussed were conducted between agnates and largely 425 prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to [428] his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

423 The extent of known transfers outside the rules of patrilineal succession has 425 been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 613 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted 614 by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

423 Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most 425 commonly full sisters and full daughters, but there are many cases involving 583 classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a [593] neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). [582] There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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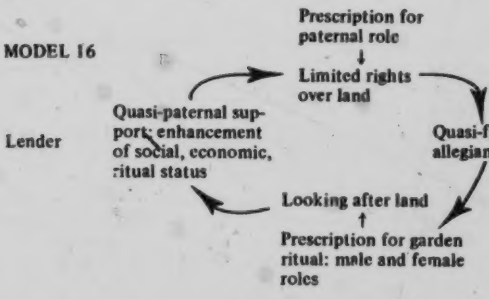

6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, [428] however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land [431] passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study 614 of Inonda (1963) and supplemented in a brief study by myself. A leading man 423 from Tandai'undi clan (Seva village) gave most of the present Inonda domain to a leading man of Andiriha clan. The Andiriha made various gifts at that time 425 (1915) and also gave Tandai'undi two women in marriage. In the following [583] generation Tandai'undi, according to the custom (of patrilateral cross-cousin [582] marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brâhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

571 conflict, necessarily precede recourse to sorcery. It is believed, however, that
602 such relatives will not usually carry their resentment too far. As soon as the
518 afflicted person makes his apologies and shows himself ready to make a pig
754 sacrifice, such sorcery will normally case. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives
[431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

671 Prestations between affines have a similar explanation, though the pattern of
578 hostile action and retaliation between affines is somewhat different. The first
602 hostile action in the series tends to be the abduction of a woman for purposes of
583 marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 far has presented this exchange system as a set of individual, though
437 interconnected, networks.
121 If our analysis cannot go beyond the identification and description of these networks, we shall clearly have failed to establish exchange as an explanatory principle for the ethnography of the Orokaiva. The success of our enterprise therefore depends on the discovery of some constraints, existing within the exchange system, which are placed upon individuals in virtue of their membership of some corporate group. If such rules exist at all, one may assume that they are most likely to be found in the marriage system.

583 Here we enter somewhat controversial ground. In the introduction to a
121 symposium on marriage in the New Guinea Highlands, Meggitt has recently (1969) asserted that, in that area at least, positive marriage rules do not exist but only what he calls 'contingent preferential arrangements'. If his arguments are accepted, there would be no positive marriage rules among the Orokaiva nor, as far as I can see, anywhere else in the world. His arguments hinge on his use of the terms 'preferential' and 'prescriptive', but even if we revert to the definitions given for these terms by Lévi-Strauss (1967: xvii–xxiii) a very careful and detailed investigation is required in order to determine whether or not the Orokaiva have any preferential rules of marriage and exogamy.

It may be best to start with Lévi-Strauss' own discussions regarding the problems of Melanesian marriage rules. When he wrote *Les structures élémentaires de la parenté* (1949), the ethnographic data from which a general model for the Melanesian area could have been securely constructed were lacking. Nonetheless Lévi-Strauss wrote a brief passage on this subject and ventured a bold hypothesis. The hypothesis seemed especially bold because at that time there was only one ethnography that could be quoted to support it, a description by F. E. Williams of the apparently aberrant kinship system of the Koriari (1932). I think nonetheless that his hypothesis is a most useful starting point for the analysis of Melanesian systems:

> *La Nouvelle-Guinée, et les régions avoisinantes, présentent, à un degré exceptionnel, un phénomène que Williams a decrit sous le nom d' "affiliation sexuelle", c'est-à-dire une différentiation de statut entre le frère et la sœur, l'un suivant la ligne paternelle et l'autre la ligne maternelle. Il est impossible d'interpréter ce phénomène en fonction de l'échange restreint: mais il devient très clair quand on l'envisage sous l'échange généralisé, puisqu'en mariage matrilatéral comme en mariage patrilatéral, le frère et la sœur suivent des destins différents. L'étude des phénomènes d'affiliation sexuelle . . . permet donc de définir, à travers tout le monde mélanésien, une sorte de faille de l'échange généralisé . . . Toute l'aire orientale, "océano-américaine", comme on peut le nommer, forme donc une sorte de théâtre, où se rencontrent échange restreint et échange généralisé, tantôt pour s'opposer, et tantôt pour se combiner* (1949: reprinted 1967: 534–5).

Since 1949, Lévi-Strauss has made several further contributions to the analysis of Melanesian societies. In the second edition of *Les structures élémentaires de la parenté* he suggested that *la ligne de partage entre les sociétés traditionellement appelées "primitives" et les sociétés dites "civilisées" ne coincide pas avec celle entre "structures élémentaires" et "structures com-*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures *'ne relèvent pas des structures élémentaires' (ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present. 614 824

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions. 582 [121]

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*. 582 583

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like. 583 602 578

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 602 578 led to serious quarrels, especially if the girl had been kept by her parents or brother for an exchange marriage. Usually, these quarrels were settled in due course upon payment of a suitable bridewealth and sometimes by a subsequent marriage for which the abductor's family provided the bride. Williams comments:

> The remarkable gestures of hostility against the husband's people which sometimes characterise Orokaiva marriage, i.e. the attempted dragging away of the bride by her people, the humiliation of the bridegroom, the damaging of his village and the bellicose demonstrations at the taking over of the *dorobu* (= bridewealth), all properly belong to the irregular methods of capture and elopement; they are the aftermath, the retaliation (1930:149).

583 584 The third and fourth marriage forms distinguished by Williams are purchase (i.e. obtaining a wife in exchange for *dorobu*) and exchange (*mine*, i.e. an arrangement whereby two men each make a true or classificatory sister available to the other). It seems that Williams did not differentiate clearly between modes of obtaining a wife and modes of making a valid marriage contract. One might obtain a wife in a number of ways. Certainly, capture and abduction seem to have been the most frequent at one time, but there were also child betrothals; long-standing preferential arrangements between villages; romances leading to sister exchange and marriages to seal political alliances. There was the whole gamut between choices made by lovers without parental approval and choices (probably relatively less frequent) made by parental fiat. But there were only two ways of making a valid marriage contract, namely *dorobu* and *mine*. Williams himself comes very close to this view towards the end of his chapter on 'Marriage' (1930: Ch. IX). He also maintains, no doubt correctly, that in Orokaiva thought *mine* appears as the 'ideal', i.e. preferential, mode of contracting a marriage:

> It appears that marriage by exchange is preferable to marriage by purchase – at least in the eyes of the marriageable man, and probably also in the eyes of his elders who sympathise with his desires. We may perhaps go so far as to say that the actual buying of a wife only takes place when circumstances make present or future exchange impossible (1930: 149).

This seems to place Williams' theory firmly on the side of Guiart's theory of marriage in New Caledonia: exchange marriage becomes the preferential mode, the 'model', whereas marriage 'by purchase' is demoted to the status of an ecologically caused departure from the 'model'. In this chapter I shall argue that Williams' Orokaiva theory reifies the folk model and conceals some of the complexity of Orokaiva social structure.

4. *Elements of Restricted Exchange*

582 583 Marriage rules related to the principle of restricted exchange are actually more numerous than Williams supposed. They must be briefly reviewed before we can argue cogently that the principle of restricted exchange does not suffice to account for the rules governing the total Orokaiva marriage system. Williams was entirely right in supposing that the Orokaiva have preferential sister exchange

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Kotari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 528 616 Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more [177] than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised [361] the tendency to dual organisation.

361 178 614 583 First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

614 621 166 616 In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

621 614 616 I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or [582] village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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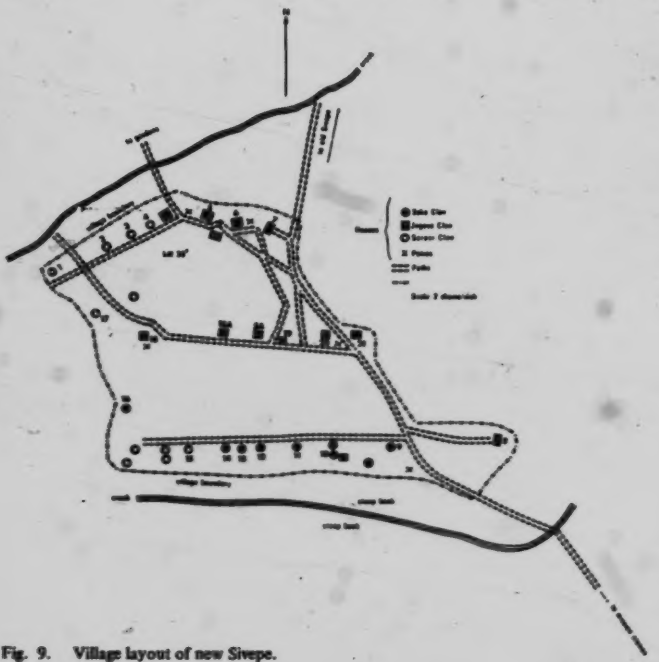

Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

It is obvious, first of all, that the Orokaiva rules concerning bilateral cross-cousin marriage and reciprocating pairs of groups are not free from ambiguity. The term *simbo* is not synonymous with the term 'cross-cousin'. Not all societies which have reciprocating pairs of groups have direct marriage exchange, as Lévi-Strauss showed in respect of the Koiari. The fact that the Sivepe people were partners in no less than twenty-five reciprocating pairs of groups in two generations poses the question whether this apparent instability corresponds to a structural regularity such as the 'sex affiliation' of the Koiari. Furthermore, in view of Lévi-Strauss' analysis of the African *lobola*, we need to investigate whether the Orokaiva institution of bridewealth (*dorobu*) is consistent with the principle of direct marriage exchange. Such inquiries would not serve to deny the reality of this principle in Orokaiva culture but rather to raise the possibility of the combined presence of direct and generalised exchange.

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6. *Kinship Terminology*

Though Williams' description of Orokaiva kinship terminology is generally very accurate, it is deficient in two respects: his definition of the term *simbo* (quoted in section 4 above) is inconsistent with Orokaiva usage and he gives no terms for female speakers. Yet it is in these two areas that we find the key to Orokaiva marriage. We have seen that a *simbo* is – always and exclusively – a marriageable consanguine. If Williams were right in saying that a *simbo* is also – always and exclusively – a cross-cousin, then a rule of bilateral *simbo* marriage would be unambiguously equivalent to a rule of bilateral cross-cousin marriage. If the term *simbo* could be positively defined as a bilateral category of cross-cousins (as the Aranda do), then again we would have a rule of bilateral cross-cousin marriage. In the absence of a positive rule, however, the Orokaiva kinship system could not be regarded as 'elementary' in Lévi-Strauss' sense of the term, and thus it would not contain a true rule of bilateral cross-cousin marriage.

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Again where such a rule prevails consistently, there would seem to be no need of special affinal terms. Williams, entirely correctly, gives a set of distinct affinal terms for male speakers which would suggest that the whole system is based on generalised rather than restricted exchange. Williams' explanation of this apparent discrepancy appears to be an evolutionary one: *dorobu* came first (and established the terminology) while *mine* developed later. As we shall see, the reality is more complex, as the Orokaiva use two types of affinal terminology: one type which is consistent with generalised exchange and another which is consistent with direct exchange. The former of these two types of terminology is in regular use by men and the latter by women. This fact is consistent with the theory that the Orokaiva marriage system is a combination of generalised and restricted exchange.

For the purpose of a componential analysis of terms we shall consider only terms used in face-to-face interaction by *ego* to address an *alter* when no other relative is present. The following dimensions of contrast apply:

Consanguine(C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.

[TEXT CONTINUED ON PAGE 205]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses. 601
Generational Removal: G–O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: M: Male; F: Female.
Sex of ego: Em: Male *ego* Ef: Female *ego*
Relative sex of ego and alter: SS: Same sex. OS: opposite sex.
Relative sex in consanguineal linkages; //: Relationship is either wholly agnatic or wholly uterine. X: relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite-sex linkage.
Marriageability (same generation only): Ma: Relationship belongs to marriageable category. NMa: Relationship belongs to non-marriageable category.
Relative age of alter: Sr: Older. Yr: Younger.

Using this code, we may define in the following way the kinship terms used in addressing consanguines. The bracketed terms are in the dialects from which Williams' information is drawn.[1]

epe:	M	Sr	G2	C			(Williams: *ahije*)
	M	Sr	G1	X	C		(Williams: *nobo*)
jape:	F	Sr	G2	C			(Williams: *ahije*)
mama:	M	Sr	G1	//	C		
aja:	F	Sr	G1	//	C		
tata:	F	Sr	G1	X	C		
apa:	SS	Sr	G–O	//	C		(Williams: *bitepemi*)
	SS	Sr	G–O	X	NMa	C	(Williams: *simbo*)
eambo:	SS	Jr	G–O	//	C		(Williams: *biteambo*)
	SS	Jr	G–O	X	NMa	C	(Williams: *simbo*)
du:	OS	G–O	//	C			
	OS	G–O	X	NMa	C		
simbo:	G–O	X	Ma	C			
meni:	M	Jr	G1	//	C		(Williams: *mei*)
iai;	F	Jr	G1	//	C		
ahije:	Jr	G1	X	C			
	Jr	G2	C				

This componential analysis, prepared from Orokaiva ideological statements, contains all the ambiguities characteristic of the system itself. Different local clan groups are supposed to use sibling terms in addressing each other. But this is above all a strategic device to emphasise the obligation of mutual political and military support. Extension of the exogamy rule to distant clansmen would logically follow from their classification as siblings, but serve no useful purpose. On the contrary, if local clan groups live at some distance from one another, the bonds between them will wear rather thin unless intermarriage between them actually does occur. In practice, distant local clan groups are not infrequently used as partners in reciprocating pairs of groups. They are then regarded as not 'really' agnates, and terms of address such as *simbo epe, tata* are used. Once intermarriage has been instituted such terms are regularly transmitted from one generation to the next. 583 614 601

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patrician in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 *dorobu* items are: pigs, taro, pots, bark cloth, feathers and bone and shell ornaments. To this we may add, for modern marriages, money. The pigs are sacrificed and not used for breeding. The pots and bark cloths are kept by the bride or distributed in her family but are not, as a rule, applied towards a future *dorobu*. Feathers and ornaments are kept by the various recipients who use them, may give them away or trade them at their convenience, but there is no fixed practice of applying them especially for *dorobu*. There is no circuit in which wives move in one direction, and *dorobu* in the opposite direction. When a *dorobu* marriage is afoot the prospective bridegroom, the members of his paternal and maternal *hae* and, to a minor extent, other members of his clan, will amass the goods that are necessary. Pigs are specially bred, taro may be specially grown. Birds are hunted for feathers. Trade goods are assembled for the acquisition of ornaments. In modern times, the prospective bridegroom seeks employment to obtain money. If the bride's brother happens to be collecting bridewealth at the time of the wedding, his own task may be facilitated, but he is still expected to show his prowess by going through the same operations as his brother-in-law.

583 606 The difference between African and Papuan practice is basically that *lobola* cattle are preserved whereas *dorobu* pigs are sacrificed. Though we are right in supposing *dorobu* to be a set of gift exchange objects, it would be misleading to say that *dorobu* is exchanged for a woman. I have collected detailed information (as yet unpublished) about the symbolic meaning of the transfer of the objects included in *dorobu*. This formation is inconsistent with the theory that these objects are regarded as equivalent to a bride. Also, the especially aggressive behaviour of the bride's parents towards their new *imi* is hard to explain on the assumption that *dorobu* is in any way a symbolic equivalent of the bride.

The main recurrent theme of all informant's statements about *dorobu* marriage is the anger of the bride's parents. This anger is more than a mere psychological state: it is a basic part of the institution. The degree of anger may vary from one case to the next according to the amount of animosity that is felt towards the *imi's* village, family and person. If there is any hint of a breach of the exogamy rules it will be very great; if the *imi's* local clan group has a claim on a wife from the bride's village, the anger may be much less. But some degree of anger is expected in any *dorobu* marriage.

Dorobu is fundamentally a payment for anger.[3] When my interpreter wished to marry a classificatory *mosida* her father, after first refusing outright, finally set a brideprice at a rate more than four times as high as had ever been paid in the village. This was out of the question and my interpreter left the village soon afterwards. People told me this price showed the measure of the man's anger. A similar line of explanation was followed when I asked informants the meaning of the strict rules of avoidance practised towards affines. I asked: 'Why do you behave in this way? Don't you like your *imbohi*?' The reply was: 'I love her very much because it was she who gave me my wife. But I feel ashamed because I shall never be able to repay her.'

431 583 It is possible, from the evidence of rites and myths, to reconstruct the significance of the various gifts that compose *dorobu*. Summarising the results of such a reconstruction, I suggest that the gifts of taro and pig both re-enact a sacrifice in primal time where a man, identified respectively with taro and pig, is

5: Schwimmer E-4,5 (1966-1967) 19
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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of feasts, explaining why there is a rule that feasts may be held only when it is ritually established that food will be plentiful.

Discussion of this myth made it clear that the feast is regarded as a purely temporary interruption of the state of strife, but that it can restore a temporary harmony if ritual is properly observed. The feast-givers must have an abundance of food; they must give everything they have to their guests. Their ancestors will then bless them; their enemies will remove evil spells from their lands, and their gardens will greatly prosper afterwards.

At a feast the Orokaiva became ritually and spiritually identified with their primal ancestors and re-enact the peace and harmony that existed in original time before strife began. It was, however, the traditional belief that such a state could not be expected to last; that after the feast strife would re-assert itself. The myth instructed man to hold feasts 'from time to time', the interval between one feast and another being characterised by food shortage and warfare. Peace was not considered to be a possible permanent state, though my informants remarked that since the coming of the white man it had become so.

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We find a similar cyclical pattern in the marriage practices of social groups. Let us take as the commencement of the cycle a crisis such as a military defeat or serious quarrel which leads a fragment of a social group to separate, move some distance away and establish a new settlement. Such a group will usually begin to intermarry with new groups using devices such as abduction and elopement. Gradually, they will set up a number of reciprocal arrangements with groups in the vicinity.. When relations with reciprocating groups become very close, the time will come, usually after two or three generations, when marriages between these groups become impossible under the rules. At this point the former affines have all been turned into notional consanguines. Unless the two sides quarrel (which is not infrequent), the stage is now set for clan fusion.

It could be demonstrated, from a detailed analysis of Sivepe marriages, that the composition of both the Seho and the Jegase local clan groups may be explained by this process. Three of the four 'lineages' of which the Jegase group is composed have migrated to Sivepe since the beginning of the century. One of the waves of migrants already bore the clan name Jegase when they lived at Kiorota, their village of origin. The other two groups assumed it quite recently, after more than two generations of residence and intermarriage. Seho was welded together a good deal earlier than Jegase, so that the lineages are no longer commonly distinguished by name, and the ideology of common agnatic origin is far more firmly established. Seho must, however, have had four lineages at one time and I was able to establish the village of origin of three of them, as well as numerous intermarriages with the Seho of Sivepe after arrival. Intermarriage seems to have become more difficult between these Seho lineages about fifty years ago, and fusion must have been complete by 1925. A marriage between two Seho lineages arranged around 1935 was the last, and caused much annoyance though there was no common *hae*.

I am not suggesting that the process described here explains all Orokaiva clan fusions, but only that the marriage system does in fact turn groups of affines into consanguines and that these consanguines if they live close together tend to assume a common clan name. The importance of this process for the study of kinship structure lies in the fact that it is explicable neither by rules of restricted

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange alone, nor by rules of complex generalised exchange alone. If the Orokaiva had only restricted exchange, they would not be periodically forced to look for new groups with whom to intermarry. If the Orokaiva had only complex exchange (as Meggitt seems to believe is the case for all people of the New Guinea Highlands, viz. the Introduction to Glasse and Meggitt, 1969), then there would be no explanation for the various forms of preferential marriage that are still practised and the tendency to establish forms of dual organisation.

From one viewpoint we may say that the Orokaiva system is '*une sorte de faille de l'échange restreint*', because the Orokaiva are forever trying to re-establish such a system. From another viewpoint it is true that, having entered into new alliances and thus moved in the direction of a system of generalised exchange, they always attempt as soon as possible to convert the new alliance into a moiety system. The fear of setting up alliances with new groups is still very strong today, in spite of wide experience with travel among foreign tribes when men take up wage employment outside their own district. They still marry wives preferably from their own village, or one of the villages with which reciprocal arrangements exist. There was not a single current Sivepe marriage that fell outside this pattern.

It is certainly curious that the chief effect of white contact upon the marriage system was to emphasise the tendency to the formation of moieties through enforced village consolidation. One would have expected that greater physical security, greater mobility and the contacts brought about through labour migration would have widened rather than narrowed the men's matrimonial universe. One imagines that processes of social and economic development must ultimately make an ideology of restricted exchange obsolete. Meanwhile, however, we observe mainly a movement in the opposite direction. Not only has government pressure unintentionally increased the opportunities for village endogamy, and moiety formation, but the combined teaching of government and mission has deprecated elopement marriages, and penalised the showing of hostility between affines. The war expeditions which led indirectly to so many marriages were stopped. The concern with pacification on the part of the authorities led to an even greater preference than previously for 'safe' marriages and therefore a narrowing of the marriage universe. My records show more marriages with partners from distant villages prior to 1915 than can be found over the last generation. It is therefore complex generalised rather than restricted exchange that was (unintentionally) discouraged.

10 *Conclusions*

This examination of the Orokaiva marriage system indicates that membership in corporate groups (the *hae*, the local clan group and the village) all have a significant influence on marriage choice, not only negatively, by prohibiting certain partners under a rule of exogamy, but also positively, by pursuing from time to time the establishment of forms of dual organisation. Certainly every individual is more or less free to choose between the two existing systems – direct exchange and complex generalised exchange. There is, however, a constant feature on the level of group relationships, namely the existence of reciprocating pairs of groups. Another constant feature is the temporary nature of these

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

582 614 583 reciprocal relationships which must collapse, due to the operation of the rules, after a few generations. This collapse may either take the form of a separation between the two groups or of a fusion into one local clan group. I have shown that the genesis of many Orokaiva local clan groups may be found in this process.

602 583 614 In the terms used in previous chapters one may categorise sister exchange and the women exchanges in reciprocating pairs of groups as phases of cycles of positive reciprocity. On the other hand, marriage by capture and elopement is a phase of a cycle of negative reciprocity. The long series of prestations offered by the bridegroom and the humiliations suffered by him have the effect of shifting the social relationship with the affinal group into a cycle of positive reciprocity. We therefore do not need to suppose that the bride is regarded as symbolically equivalent to *dorobu* as some African analogies might suggest. *Dorobu* is sufficiently explained as a magical device whereby a reversal in the mode of reciprocity (from negative to positive) is effected. The full range of gifts symbolises the wide scope of the resulting social relationship.

The theory assumes a profound dependence upon the affinal group. This dependence is in fact emphasised in many social, economic, political and religious situations. Ideally, an affinal relationship leads to the establishment of a pair of reciprocating groups. In the light of this understanding, it becomes clear that the exchanges analysed in the preceding chapters are consequences of the group relations set up by the marriage system. In chapter V, I showed the prevalence of a principle of dual allegiance resulting from the inheritance of land originally belonging to the mother's brother. I showed that a critical situation arises in the third generation when the uterine family does not renounce its residual rights but the social relations which give reality to these residual rights, viz. dual allegiance, becomes problematical.

583 614 The system would appear, indeed, to be so automatically productive of crises that one might wonder how it could ever have been maintained. It becomes much easier to understand if we recognise that the daughter of the marriage is expected to marry in the mother's brother's village. The land can thus revert to the people of the original village by a series of two uterine transfers. The system looks a little like the 'rope' of the Mundugumor (Mead 1935), and the latter may well have a similar explanation. It has a clear political utility as the dual allegiance pattern forms the basis of Orokaiva political alliances. It is buttressed by religious beliefs, as the spirit of a male child may be derived from either an agnatic or a uterine ancestor, by the process of reincarnation to which I have already referred.

Ultimately there would appear to be two possible outcomes of such hereditary land gifts: fusion of the reciprocating pairs of groups into one local clan group and separation on more or less hostile terms. These two outcomes correspond to the two modalities of the marriage system. The hostile modality is not a *failure* of the system but a natural and accepted part of it. Thus, the frequent migration of groups, as evidenced in Sivepe and many parts of New Guinea, should not be regarded as purely adventitious, but is structurally determined as part of a system which, as we have seen, could not work over a long period with a static population.[4]

The frequent exchanges of cooked taro reported in Chapter VI tend to keep

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

reciprocating pairs of groups in a state of pseudo-commensality. They share not only the land but also its products. The symbolic significance of taro, as set out in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social structure. Social structure, in the sense in which I am using the term, is most clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to ... structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

000 2. E. G. and J. D. Krige describe a particularly clear example (1943: Ch. IX; 1939) among the Lovedu.

583 606 578 3. I discussed in Chapter VII the Orokaiva device of using anger for the mediation of social relations. Monica Wilson has described a somewhat similar mechanism for the Nyakusa (1952: 99–112; 1959: 161, 165, 217). Among the Orokaiva, however, two opposite tendencies are at work: the obligation to express at once the anger one feels and the offender's obligation to assuage that anger (whether justified or not). Much Orokaiva exchange involves prestations made by one party to compensate for anger felt by the other.

While 'anger in the heart' is disapproved by Orokaiva, most actual misfortunes are explained by anger existing in someone else's heart. The guilty person is deemed to be he who, though aware of his anger, does nothing to remove it. It is most often the victim of the angry person's retribution who is expected to feel guilty. One may show anger by harming one*self*. Such action, while overtly non-aggressive, is in fact a threatening signal to the causer of the anger.

000 4. A similar discovery was made by Watson (1970) in a paper based on New Guinea Highlands data, entitled 'Society as Organised Flow'.

Chapter 4

The cash economy

434 a. Income and expenditure[1]

[127] [128] Data collected from each household on its income and expenditure for 1962 are set out in Tables 6 and 7. There were no written records available to check the amounts which informants claimed they had received or paid but detailed discussions were held on each specific item and inconsistencies were re-examined. An average of $34 had passed through each householder's hands and he could fairly easily recall details of the major transactions.

[511] Per capita income was approximately $6.60 for the year while expenditure was $8.20. The reduction during the year in the amount of cash in hand is due to the fact that individuals who had employment which terminated late in 1961 or early 1962 drew on cash reserves during 1962.

Of a total income of $328 for the 12 households, 27 per cent was derived from paid employment, 24 per cent from the sale of primary produce and 24 per cent from marriage payments; a further 13 per cent was money received from kin employed in other districts of Papua and 12 per cent came from kinsmen in the neighbourhood (see Table 6).

[511] Major items of expenditure were store purchases of food, clothing, household utensils and other equipment such as a shotgun and torches. These accounted for 62 per cent of total expenditure. In many instances the goods were distributed or shared among 2 or 3 households of the expanded family and sometimes more widely than this. Some householders shared the receipts [583] of large bride price with other kin during the year but no one had [431] had to contribute to bride price payments on behalf of kin. Of $410 paid out by the 12 householders in this period 22 per cent

[1] Figures given in this section are corrected to the last digit given.

434 was in recognition of kinship obligations including bride price
[513] and gifts while 49 per cent of income was derived from these
[431] sources.
[525]

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 None of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B), the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging
[131] from nil to £39 with an average of just under £10. A small part of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] Shell and bone ornaments (hambo) and head-dresses (di) - made
[23] from feathers of the bird-of-paradise, mountain parrots, hornbills
[32] and cassowaries - known collectively as di hambo, are held by the
[555] people of Sivepo as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A, [See Category 454, pp. 107-108--Analyst]

436 a standard of value. However, to some extent money seems to have
[555] taken over some of the functions of traditional valuables and in
some situations one is exchanged for the other. In the past it
[301] was recognized that skill and initiative in hunting and trading
[237] were necessary to acquire di hambo but today, with safer communi-
[321] cations and better hunting equipment, they are more easily obtained.
People are willing to buy some of the more valuable items or some
[439] cheaper items of European manufacture which can be adapted to
serve as a novel decoration.

Although they constituted the greater part of the goods changing
[428] hands on traditional ceremonial occasions, di hambo are evidently
not now circulating rapidly. A little less than half of these
valuables held by members of the sample had been inherited and
nearly a quarter had been acquired by the owner by hunting or
collecting.

A complete adjustment between the roles of money and of non-
monetary valuables has not yet been made. They circulate in the
same exchanges and both are considered essential; it may now be
[583] accepted practice that each should be contributed by or distributed
amongst different categories of kin on these occasions.[1] But the
opinion was widely expressed that as people are increasingly
demanding cash as a large part of bride price payments, the
intrinsic value of these exchanges was correspondingly less.

435 Although money and traditional valuables are not freely inter-
changeable, we collected details of the prices paid for any items
of di hambo which had been purchased by the sample,[2] and by using
these in conjunction with the unitary scale of value on which
informants could readily place all items, we assessed the possible
cash equivalent of non-monetary valuables acquired by the 12 house-
holds from various sources. This is set out in Table 8.

Table 8

Cash value and acquisition of hambo and di
($)

	Inherited	Purchased	Bride price or other exchange	Made or bought	Total
Hambo	48.00	9.30	17.70	16.60	92.00
Di	17.00	4.50	6.50	15.40	44.00
Total	66.00	13.80	24.20	32.00	136.00

1 See Crocombe and Hogbin 1963:52.

2 These prices were very nearly the same as those recorded at Inonda (Crocombe and Hogbin 1963: Appendix B).

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Bride and groom outside the organizer's house on the morning of the first day of the bride-wealth exchange

[516]

Transferring the cash

[p. 80]

I

The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

[1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

investment in the villages, for there is scope for an astute and influential individual to use them to accumulate cash which may subsequently be invested. On the other hand, an institution such as bride-wealth may be detrimental in that an individual may consider it pointless to earn more cash if a large proportion is to be used to assist kin in exchanges which do not benefit him directly. Also an individual may have difficulty in accumulating cash for investment if social pressures force him to contribute a high proportion of his cash income to non-commercial exchanges.

In addition we have no clear understanding of the degree to which and circumstances under which an individual's participation in ceremonial exchanges involving cash affords him access to the land, labour and capital resources of the group to which he belongs. Some indigenous entrepreneurs minimize their participation in these exchanges while others apparently attempt to use them to advantage.

The following description of an Orokaiva marriage and bride-wealth exchange does not contain sufficient information to allow generalizations about economic implications but may be a useful contribution to a comprehensive study of customary exchanges. The activities associated with the marriage involved people from several villages and hamlets as well as a nearby land settlement scheme. The events spread over approximately two and a half months culminating in the payment and distribution of the bride-wealth at the end of August 1962.

II

Traditionally, an Orokaiva man could acquire a wife by payment of bride-wealth; by exchange of a girl from his lineage, sub-clan or clan for another from an outside group; by elopement; or by capture (Williams 1930:130). When Europeans gained control of the Orokaiva area early in the century, marriage by capture, which had been common, was no longer possible. Since then, other aspects of marriage among the Orokaiva have changed. People may now move freely within the Orokaiva area and elsewhere, and consequently the range of villages from which an individual may choose a spouse is wider than in the pre-contact period. Furthermore, many marriages now take place at least partly in accordance with church practices. Missions[1] have failed to suppress exchanges of bride-wealth and it

[1] The Anglican Mission has been operating in the area for over 50 years and has been the most influential evangelical institution there.

583 is still transferred in most marriages, including those which take
107 place in a church.
799 Polygyny was accepted but probably not frequent in traditional
Orokaiva society. In spite of mission opposition there are still
595 instances of polygyny but the great majority of marriages are
monogamous. Marriage outside the clan is considered preferable
614 but there are numerous cases of marriage within the clan. The
village is not considered an exogamous unit. Marriages are usually
582 patrilocal but this is not a definite rule (cf. Williams 1930:130-3).
[621]
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III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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[1] See map, p.84A*

[2] See diagram, p.85A and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

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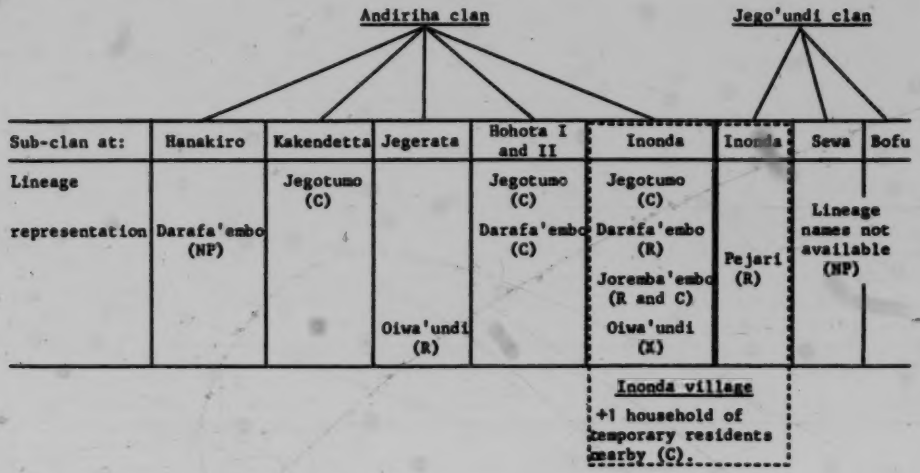
Diagram showing locations of Andiriha and Jego'undi clans and social units comprising Inonda



C = contributed to bride-wealth
R = received share of bride-wealth
NP = took no part in the exchange
X = sole male representative was youth adopted into groom's father's household

where he was headman for about 12 years. In 1960 he moved his household to a block he was allocated in a land settlement project a short distance from Inonda across the Girua River, but he continued to exert strong influence in the affairs of Inonda. 584

A man from Sewa wished to marry the girl but her father and brother opposed the marriage because, they said, her married sister at Sewa was not happy there. When the present groom returned to Inonda in 1962 she was attracted to him and rejected the Sewa man in his favour. The Sewa man's family were displeased and it was rumoured that they were responsible for the sorcery which caused the groom's father to die.

Late in June, without her father's permission, the bride stayed in the groom's household for a few days and the couple made it known that they wished to marry. The bride's father and brother, especially the former, opposed the marriage. They gave several reasons, but it is difficult to know which was the most important. They said they were angry because she 'ran away' to live in the groom's father's house and that they wished her to marry a man of better prospects and from a family of greater prestige. Her brother, formerly a mission teacher, said she should be baptized so that she could have a church marriage, but this did not happen. Both bride and groom were of the Andiriha clan, but this deviation from the Orokaiva preference for clan exogamy was never openly used as a basis for objection to the marriage.

The bride-wealth for the marriage was set, principally by the bride's father, at $200 in cash and the equivalent of $200 comprising a pig, traditional valuables,[1] household utensils and food. Villagers considered this an extremely high price and evidence collected in the village suggests this was so (see Table 1). An Orokaiva research assistant who had travelled widely through the area said it was unusually high for a small clan such as the Andiriha, although not unusual for large clans.[2] Moreover, as the marriage was endogamous to the clan, the groom could not call on the entire clan's support. 583 [114]

The bride's father said he needed the money to establish a retail store and to buy a motor vehicle, but in September 1965 he had not realized these ambitions. His opposition to the marriage may have moved him to set a high price in the hope of discouraging the groom. However, informants said it was not unusual for a parent or guardian to make a display of anger towards a daughter's [584]

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[1] Traditional ornaments, and feather headdresses will be referred to collectively as 'traditional valuables'.

[2] C. Burau, personal communication.

Table 1

583 Bride-wealth paid for three women married into, and two marrying out of Andiriha sub-clan, Inonda

	In 1	In 2*	In 3	Out 1	Out 2**
Approximate date	1961	1958	1953	1960	1964-5
Cash	$74	$22	$40	$22	$74
Pigs	2	?	1	?	nil
Traditional valuables, utensils, etc.	Yes	Yes	Yes	Yes	?
Food Approx.	$12	Yes	Yes	Yes	?

* Woman with illegitimate child.
** Required of a man from Madang District for a girl of Joremba'embo lineage.

[584] suitor (cf. Williams 1930:31, 141, 144, 149-50). The people of Inonda were aware of high prices paid for women near Port Moresby[1] and the bride's father, a man of high prestige in the area, may have been attempting to raise local prices towards the level of prices in urban areas.

The groom and his father complained about the price but accepted it as a challenge which must be answered by payment.

Between the time the price was set and the time it was paid, bride and groom spent much time together. For about three weeks the groom and a classificatory sister lived at the bride's father's farm where they helped with farm work. One weekend the bride, groom and bride's father went on a fishing expedition, indicating that the bride's father had consented to the marriage.

583 614 768 About a month before the bride-wealth was paid the groom's father died and the responsibility for organizing the payment passed to the head of the Darafa'embo lineage of the Andiriha sub-clan in Hohota II. This man will be referred to as 'the organizer'. Ideally the responsibility would have passed to a senior man of the Jegotumo lineage in Inonda, but the groom himself was the most senior. The responsibility could have devolved to the senior man of Jegotumo lineage in either Hohota I or Kakendetta, where Jegotumo was represented, but the only Jegotumo

[1] Bride-wealth exchanges in Hanuabada, Central District, at the time were mostly in the range $600-$1200 in cash plus an equivalent amount in traditional valuables (N.D. Oram, personal communication).

man in Hohota I was in his late twenties and had insufficient status in the Andiriha clan to organize the payment. There were two senior Jegotumo men in Kakendetta but the responsibility went to neither, probably because Kakendetta was 11 miles from Inonda and the groom's father's household had little contact with them. Inonda people said that the reason the position of 'organizer' passed to the head of the Darafa'embo lineage in Hohota was that about the turn of this century his father and the groom's paternal grandfather had fled together from Aramba to Hohota and that the common history of the two families placed the organizer in a special relationship with the groom (Crocombe and Hogbin 1963:14). 583 614 768

Several times during the two and a half months over which the bride-wealth was accumulated, the bride's father embarrassed the groom and his supporters by saying publicly that they were slow to meet the payment and that he thought they were incapable of doing so. About five days before the event the groom and his supporters arranged with the bride's father that the exchange should take place on Friday, 30 August at Hohota II. 583

On Thursday, part of the food contributed by Hohota people was stacked in a shade-house adjacent to the organizer's house. That evening four men from Hohota went to Inonda to assist the Inonda men to carry to Hohota a large and valuable pig which had belonged to the groom's father and was to be part of the bride-wealth.

At 6.00 a.m. on the day of the ceremony the groom's supporters began to gather at the organizer's residence at Hohota. All were assembled by 10.30 a.m. The food they brought was stacked near the shade-house and the traditional valuables on the verandah of the residence. Both bride and groom had spent the night at Hohota but they took only minor parts in the preparation of the bride-wealth.

At 6.30 a.m. a party of five women, including the bride's father's two wives (one of them the bride's mother) and the bride's mother's brother's wife, stood outside the organizer's house berating the groom's family for failing to have the bride-wealth completely ready. These women had come to collect a preliminary payment, kina, contributed by close relatives of the groom and distributed amongst close relatives of the bride to indicate to the bride's family that she is marrying into a family of wealth. Some cash, traditional valuables, household utensils, food and several pieces of bark-cloth were handed to the women, who stacked them into string bags and returned at 8.30 a.m. to the bride's father's house, two miles away.

At 7.30 a.m. other members of the Jegotumo lineage and people who had come to the ceremony smeared the groom, his stepmother, stepsister and other close relatives with a paste of mud, ashes

and leaves which irritates the skin. This was accompanied by general merriment. It was said to be a tradition, though the people gave no explanation of its significance. The women chattered together while they prepared and cooked taro, and most men sat in the shade-house chewing betel and talking. The groom and the organizer collected firewood and erected a temporary shelter of coconut fronds adjacent to the shade-house. From 9.30 a.m. to 10.30 a.m. some of the groom's close female kin dressed the bride, decorating her with traditional ornaments, fastening a bark-cloth sarong around her and spraying her hair with fresh coconut oil. The groom's supporters expected the bride's father and his party to arrive at Hohota at midday. When they did not, the waiting group became restless.

The bride's father had summoned the people who were to share the bride-wealth to his house to discuss the attitude they would adopt towards the contributing party when the two groups met at Hohota. They decided to irritate the groom's supporters by delaying and did not arrive until 3.00 p.m. As they approached the organizer's house, a man dressed in bark-cloth and ornaments and carrying a spear emerged from amongst them. A similarly attired man advanced from the organizer's party, who rose to their feet. The two men faced each other about thirty yards apart and, brandishing their spears, repeatedly rushed at each other and retreated for approximately five minutes.[1] During this time the bride's father's party moved quietly towards the organizer's house and the two groups sat on the ground outside.

Apart from the bride and the two men carrying spears, people wore normal clothing, although some had armbands and necklaces which may have been specially donned for the occasion.

The bride's father, who remained standing, asked whether the bride-wealth was ready. The organizer replied that it would not be ready until the bride's father sat down. This clearly offended him and tension quickly mounted in both groups. An argument broke out and climaxed when two of the groom's supporters accused the bride's father of setting an unreasonably high price and of lacking generosity by refusing to reduce it when the groom's father died. Thoroughly aroused, the bride's father shouted that he would not accept the payment, that he would take his daughter and in high dudgeon stalked off. The bride's brother supported him by returning $3.00 which had been given as part of the kina. Three people who each contributed $2.00 to the main payment withdrew the money during the dispute.

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[1] Williams (1930:141) notes that a similar manoeuvre, esu, which involved many supporters of bride and groom, was 'highly characteristic' of bride-wealth transfers in the 1920s.

A debate lasting two hours followed during which tensions subsided. The bride did not seem at all perturbed and while the dispute was in progress she sat out quite cheerfully after her father. The groom stood silently at the back of the assembly and took little part in the dispute. 583

About 4.30 p.m. a Girua settler who was present and whom the bride's father greatly respected offered to mediate. He originally came from a village near Oro Bay which had only very distant kinship ties with Inonda and surrounding villages. He went to the bride's father who was waiting about half a mile away and persuaded him to allow the marriage to proceed. There was no formal presentation or acceptance of the goods. The groom's supporters had heaped the food outside the shade-house, placed the utensils and some traditional valuables on the verandah of the organiser's house and tied other traditional valuables to a bamboo pole standing near the house. While the crowd was dispersing, the bride's mother and a few members of her group loaded the pig, food and valuables into a vehicle for transportation to the bride's father's farm. The cash was not paid until the next day.

Next morning the organizer and four of the groom's supporters took the cash to the bride's father's farm. A mat was placed outside the house and a few of the bride's father's supporters sat on one side with the groom's on the other. Other men and a few women crowded round to watch. The young Jegotumo man from Hohota who had contributed most cash to the bride-wealth and who, by virtue of being a talented gambler, was adept with money, counted the notes and arranged them neatly on the mat. They were counted and carefully rearranged several times over about 15 minutes, after which the groom's supporters left. The people's interest in the payment of the money contrasted with the apparent lack of interest in the transfer of other components of the bride-wealth.

The bride-wealth was distributed on two days. Immediately after the cash had been presented a brother of the bride's mother and a relative of the bride's father placed the food, household utensils and less valuable feathers and ornaments into 16 piles, some comprised of food, some of food and utensils and some of food, utensils and traditional valuables. The two men then allocated the piles, each of a different value, to particular people. The bride's father held up the more valuable feathers and ornaments for all to see and offered each item to a specific man. If he did not accept readily, the item was offered to another man. The pig was killed, carefully cut into pieces of different sizes, and distributed.

Next day, without ceremony and when few people were present, the bride's father and brother distributed the cash, retaining just

under 90 per cent for themselves. The balance was shared amongst four men, two of whom were absent.

IV

In examining the factors which influenced the size of a particular household's contribution to, or share of, the bride-wealth, cash values have been assigned to the non-monetary components (see appendix). However, it should be noted that the cash value of a contribution is only an approximate indicator of the magnitude of obligation of a contributing household to the groom, because the wealth of the household must have influenced the quantity and type of goods it could contribute. Wealth per se would not have influenced the share of the payment received by a household.

Householders from more than 20 clans in eight villages took part in the exchange, but men of at least ten other clans in these villages did not. The multiple relationships between contributors and between recipients were too complex to record in detail.

The value of the kina was only $29.35 as against $172.20 for the main bride-wealth (compare Tables 2 and 3). The people who contributed to the kina were either closely related genealogically to the groom or had high status within the contributing group (e.g., the organizer and the head of the Jegotumo lineage in Kakendetta village). Unfortunately the distribution of the kina was not followed sufficiently closely to determine whether the goods went only to those closely related to the bride or of high status within the recipient group.

Details of the contributions to the total bride-wealth (main payment and kina) and the approximate genealogical relationships of the groom to the heads of the households which contributed are shown in Table 3. The physical distances of the households from Inonda are also shown. The households have been separated into seven categories.

1. Local households of the groom's lineage. These were the household of the groom's late father (in which the groom lived) at Inonda and that of his parallel cousin at Hohota I. Together they contributed approximately 80 per cent of the total value of the bride-wealth and just under 90 per cent of the cash component, with the groom's household making the larger total contribution. The cash contributed by the groom's household was approximately equal to one year's income for the household.

The household of the groom's parallel cousin contributed about a quarter of the total payment. As well as close genealogical ties, this man had a close personal relationship with the groom.

A [See Category 435, p. 101--Analyst]

13: Hogbin E-5 (1962) 1966 OJ23 Orokaiva OJ23 Inonda

Table 2

Estimated cash value of contributions to kina

	Village	Contribution					
		Cash	Traditional valuables $	Bark-cloth $	Household durables $	Food $	Total
Groom	Inonda		7.90			0.50	8.40
Groom's stepmother	Inonda			3.75		0.80	4.55
Organizer	Hohota		1.80		0.20		2.00
Head of Jegotumo lineage at Kakendetta	Kakendetta	2.00*			0.70		2.70
Mother of groom's parallel cousin	Hohota I		0.40	2.25			2.65
Andiriha women closely related to groom's father	Hohota	1.00*		1.50	1.20	0.30	4.00
Groom's mother's eldest brother	Urio		1.40		0.50		1.90
Groom's stepmother's brother	Urio		0.40	2.25	0.50		3.15
Total		3.00*	11.90	9.75	3.10	1.60	29.35

* Returned by bride's brother at dispute at bride-wealth transfer.

583

2. Distant households of the groom's lineage. The two other households of the groom's lineage contributed only a little over 1 per cent of the total payment. They contributed a further $4.00 in cash but during the dispute the bride's brother returned $2.00 and the other $2.00 were withdrawn. Neither householder was genealogically close to the groom and he had formed no close personal relationships with them, probably because they were at Kakendetta, 11 miles from Inonda. The four households in categories 1 and 2 constituted the entire Jegotumo lineage.

3. Local households of the groom's clan (but not lineage). These were the households of the organizer and of an Inonda man. Although the organizer's household gave only $4.00 in cash, the value of the food, ornaments, and feather head-dresses it contributed was greater than that of any household except the groom's. In terms of its assets and cash income the contribution was substantial, though small in relation to the contributions of the households of category 1.

The head of the other household in category 3 was of the bride's lineage, Joremba'embo. He was in an ambiguous situation because when his father died, his mother remarried the groom's father who adopted him. He had genealogical associations with the bride's father's household as well as more distant genealogical links, close adoptive links and close physical association with the groom. Inonda people stated without reservation that he was a member of the bride's lineage. He stayed away when the bride-wealth was transferred, but his wife contributed a small quantity of food.

4. Local households of other clans with wives from groom's clan. The contributions of the three households in this category averaged $4.72.

5. Local households of other clans (wives not Andiriha). In contrast with the households of category 4, the average value of the contributions from the eight households in this category was only $1.16. This suggests that, because of agnatic and affinal links to the Andiriha, the households in category 4 were obliged to contribute more than those in category 5 which had only very distant genealogical links, if any, to the Andiriha.

6. Other households of the groom's village. Of the eight households in Inonda only three contributed to the bride-wealth. Two of the three which contributed have been included in categories above. The head of the third household was in an anomalous situation. He had been a school-teacher at a mission station formerly adjacent to Inonda. He remained after the station was closed and the Inonda people permitted him to live near the village where two of his daughters were married to Andiriha men, one being the wife of the bride's brother. His security in Inonda depended on acceptance by the villagers and possibly because of this he was

[TEXT CONTINUED ON PAGE 96]

Table 3

Contributors to bride-wealth analysed by physical and genealogical distance from the groom's household
(size and type of contribution shown)

	HOUSEHOLD HEAD IN ANDIRIHA CLAN									
	Joreuko'eubo (bride's) lineage	Jogotume (groom's) lineage				Boraifa'eubo lineage	Married to Andiriha women			
Village	INONDA			KAKEMBETTA	BOROTA I	BOROTA II			ORIO	
Distance by road from Inonda	1/8 mile	Nil		11 miles	3 mile	5 miles			7 miles	
Category	6	3	1	2	1	3	4	5	7	
Household head	Temp. resident, 2 dghtrs married to Andiriha	Man of bride's lineage adopted by groom's father	Groom (late father's household)	Jogotume lineage	Groom's parallel cousin	The organiser	Married to Andiriha woman	Locally resident; no close relationship	Mother's kin	TOTAL
No. of households	1	1	1	2	1	1	3	8	2	20
Cash	$ -	$ -	$ 70.00	$ *	$ 40.00	$ 4.00	$ 4.00**	$ 2.00	$ ***	$ 80.00
Pig	-	-	60.00	-	-	-	-	-	-	60.00
Traditional valuables	2.00	-	7.90	-	2.40	4.20	3.80	4.10	1.80	28.20
Kerk-cloth	-	-	3.75	-	2.25	-	1.50	-	2.25	9.75
Household goods	0.30	-	2.50	0.70	6.20	0.20	2.10	-	1.00	13.00
Food	0.25	0.45	1.45	0.75	1.30	1.95	2.75	1.20	0.30	10.60
TOTAL	2.55	0.45	105.80	1.45	52.15	10.35	14.15	9.30	5.35	201.55
Average contribution per household in column	2.55	0.45	105.80	0.73	52.15	10.35	4.72	1.16	2.68	
Per cent of total bride-wealth contributed by households in column	1%	Negligible	53%	1%	26%	5%	7%	4%	3%	
Contribution by village (per cent of total in parenthesis)	108.80 (54%)			1.45 (1%)	52.15 (26%)		33.80 (15%)		5.35 (3%)	
Contribution by Andiriha lineages (per cent of total in parenthesis)	Joreuko'eubo 0.45 (negligible)	Jogotume 159.40 (80%)				Boraifa'eubo 10.35 (5%)				
Contribution by Andiriha households (per cent of total in parenthesis)	ANDIRIHA HOUSEHOLDS 170.20 (85%)						14.15 (7%)			

* $4.00 contributed but $2.00 returned by bride's brother at dispute and $2.00 withdrawn after dispute.
** Another $1.00 contributed to him but returned by bride's brother at dispute.
*** $4.00 contributed but withdrawn after dispute.

Table 4

Distribution of bride-wealth by household categorised by descent group of household head

(some items not recorded)

Category number and description	Village	Distance from Inonda	No. of households by clan of household head	Cash £	Traditional valuables £	Bark-cloth £	Household goods £	Food £	Total £	Average per household in category (approx.) £
1. Local household of Joreuba'unbo (bride's) lineage	G.L.S.S.* Inonda	1 mile 0	1 Andiriba 1 Andiriba	70.00	?	?	?	?	in excess of 70.00	in excess of 35.00
2. Local households of Andiriba clan (but not Joreuba'unbo lineage)	Inonda	0	2 Andiriba	-	0.50			0.20	0.70	0.35
3. Distant household of Andiriba clan (but not Joreuba'unbo lineage)	Jegereta	8 miles	1 Andiriba	-				0.10	0.10	0.10
4. Households affinally and matrilineally related to bride's father's lineage (and some to bride's mother's lineage)	Inonda Nogoa " " "	0 1 mile " " "	2 Jego'undi 2 Unuhuba 2 Ukuru'undi 1 Arubaga 1 Aneta'undi 2 ?	2.00	5.85	0.75		1.05	9.65	0.95
5. Households with affinal and kinship ties to bride's mother's lineage	Ajura " " "	3 miles " " "	3 Tandai'undi 1 Unagiri'undi 1 Ojael'undi 2 ?	8.00	9.50	3.75	1.00	1.60	23.85	3.40
6. Households of bride's sister's husband and his father	Sova	7 miles	2 Sauharupa	-	0.40	1.50		0.25	2.15	1.05
7. Household with no genealogical relationship to bride	G.L.S.S.	1 mile	1 ?	-	1.60	0.75		0.25	2.60	2.60
TOTAL RECORDED DISTRIBUTION				80.00	17.85	6.75	1.00	3.45	in excess of 109.05	
COMPARE WITH: TOTAL CONTRIBUTION				80.00	29.20	9.75	13.00	10.40	201.55	

* Girua land settlement scheme.

notably generous with gifts. It might otherwise be expected that he would have avoided the ceremonies or aligned himself with the bride's group, especially as the husbands of his daughters received shares of the bride-wealth. However, he contributed goods worth $2.55. 583

Of the five households in Inonda which did not contribute, the heads of two were brothers from the Jego'undi clan (not the Jegotumo lineage). Their mother was of the Joremba'embo lineage of the Andiriha and they therefore received a small share of the bride-wealth. The head of another of the five households was the bride's brother. The heads of the other two households were brothers and were considered by the villagers to be members of the organiser's lineage (Darafa'embo) because their father had been adopted into the Darafa'embo after being captured from a Managalasi tribe. In contrast with the organiser who had a dominant role in the contributing group, they received small shares of the bride-wealth at least partly because their mother was of the bride's lineage, and possibly because one of the brothers married the sister of the bride's brother's wife.

7. Households of the groom's matrikin. These were the households of the groom's mother's brother and his stepmother's brother, both from Urio village about seven miles from Inonda. No others of the groom's matrikin contributed.

Of the heads of the 20 households which contributed, only six were from the Andiriha clan and four of the six were of the Jegotumo lineage. If the bride had been a member of another clan, other Andiriha households probably would have contributed. Most of the 12 householders from Hohota II who contributed had no close genealogical relationship with the groom. They may have contributed because his father had lived there for many years before shifting to Inonda. However, the obligations could have been primarily to the organiser, a Hohota man.

V

The analysis of the distribution of the bride-wealth is not entirely satisfactory for two reasons. First, there were difficulties in observation. For example, some of the pork and other food was cooked and eaten while the distribution was taking place; some was handed to people to be given to others; and valuation of the pork cuts was impossible. All households which shared in other components of the bride-wealth were given pork, the choicest portions going to those which received the largest shares of other items. Some household utensils given in the bride-wealth were used 583 125

583 to cook and serve the food. The ultimate recipients of these were
123 not ascertained. Secondly, most recipients were from Mosou and Ajoro, villages in which there were many clans. Complete analysis was not possible because detailed genealogies were not collected and because both the father and mother of the bride had genealogical links with Mosou village. Nevertheless, sufficient information was collected to indicate some of the principles underlying the distribution.

583 Households which shared in the bride-wealth have been catego-
[123] rized according to the head's approximate relationship to the bride (see Table 4).[1]

Category 1 included the households of the bride's father and brother. These men controlled the distribution of the cash and retained just under 90 per cent, each taking $35. Although the father directly controlled the distribution of the more valuable traditional ornaments almost all the non-monetary components went to other households.

Two other local households of the Andiriha received shares of the bride-wealth (category 2). Their shares were small, possibly because they were of neither the bride's nor the groom's lineages and were therefore to some extent in a neutral position regarding the marriage (see also page 96).

Only one household of the Andiriha clan from a distant village (category 3) shared in the bride-wealth and the share was very small. This parallels the small contributions of the two distant households of the groom's lineage. The only Andiriha households known by the Inonda people to have taken no part in the marriage were from Hanakiro, a village about 20 miles away.

A large number of households with heads affinally and matrilineally related to the bride's father (category 4) received modest shares of the bride-wealth. The genealogical ties of three of these households were reinforced by assistance which the heads had given with the ceremonies performed when the bride attained puberty, at which time her father was absent from Inonda. Some households in the category had genealogical ties to the bride's mother as well.

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[1] It is possible that I was not aware of some cases where two or more recipients lived in the same household and if so, they have been listed in Table 4 as separate households. For example, an aged woman and her son may have received separate shares. Their relationships to the bride, as described to me, would not indicate whether they were in the same household and they would be recorded as separate households.

Householders with affinal and kinship ties to the bride's mother (category 5) received a larger share of the bride-wealth per household than all others except those of category 1. Moreover, the brother of the bride's mother, another close patrilineal relative of the mother and the husband of the bride's mother's sister (with whom the bride had stayed while her father was at the war) were given cash. These three men received comparatively large shares of other components of the bride-wealth. One of the reasons the households of this category received comparatively large shares may have been that the bride's mother's clan (Tandai'undi) from Ajoro village had formerly transferred rights to a substantial area of land to the Andiriha sub-clan in Inonda. The Inonda people are afraid that if the land is reclaimed, a court may uphold the claim and they therefore attempt to remain on friendly terms with Tandai'undi clan and Ajoro village. This appears to be manifested by generosity in their exchange relationships with Ajoro. 583

The bride's sister's husband and his father (category 6) received small shares.

The only man who received a share but who had no genealogical relationship to the bride was a settler on the Girua land settlement scheme where the bride lived (category 7). His inclusion indicates a flexibility in the exchange system wherein residential proximity without historical or genealogical relationship permits the establishment of exchange relationships.

VI

Less than half the cash demanded was paid and villagers considered that the value of other components of the bride-wealth was well below the target set by the bride's father. At the time they said that more cash would be paid when the groom's supporters sold land to the Administration, but by September 1965 no sale had been effected and no further bride-wealth had been paid. The bride's brother regarded the exchange as complete, but said that the bride's group would have demanded full payment if the groom's father had been alive.

The couple express intent to marry in a church but it is doubtful whether this will happen and even if it does, no additional payment will be made. In February 1964 the groom prepared a customary feast known as pene to mark the birth of his first child but this was not part of the bride-wealth. It was shared by the bride's father, brother, and the other household head of the Joremba'embo lineage in Inonda and her mother's brother from Ajoro. [585] [851]

583 [851] These people were expected to return a feast of similar size for the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 613 The economic consequences of the payment were greatest in four households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 614 This was not an ideal situation in which to investigate the extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 602 The range of genealogical connections between the groom and heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 621 Co-residence in a village may also have some influence. Some people, though not all, from each of Kakendetta, Hohota I, Hohota II and Urio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Hosou, Ajoro, Sewa or Jegerata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

even have been sufficient qualification for admission to a group, but without precise and comprehensive genealogical information this cannot be asserted. It is possible, for example, that some households could trace approximately equivalent but very distant genealogical relationships to both bride and groom, and that place of residence then determined the group with which they were aligned. 583 621

Williams (1930:137) describes a marriage payment typical of the mid-1920s. It included no cash and the traditional valuable would have been worth only $10.00 at 1962 prices. The traditional valuables in the bride-wealth described here were worth about three times as much and in addition $80.00 in cash was included. The people clearly regarded the cash as the most important component. Those genealogically and residentially closest to the groom contributed most cash; there was considerable formality associated with the payment of it; and in discussions of the bride-wealth the dominant topic was the cash component. The bride's father and brother received most of the cash but only a small proportion of the traditional valuables and they showed little interest in the latter. Households with lesser claims generally received items other than cash. The importance of traditional valuables in marriage payments has therefore declined markedly as a result of the introduction of cash to the economy. 583 497 178

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preliminary planning. One may walk to the coast at any time and obtain sea-shells by purchase or barter. Moreover, many people now place a higher value on imported objects, both ornamental and utilitarian.

Nevertheless, hambo and di still have a value. A man derives prestige from being "rich in hambo", a wedding is not complete without the exchange of valuables, and a man is not properly dressed for important festivals unless he is adorned with hambo and di. Moreover, one is sometimes forced to acquire hambo, as in the case of a relatively wealthy man in a neighbouring village who cannot decline the requests of relatives (in Inonda and elsewhere) to give them cash for hambo to enable them to pay their tax.

In a bride-price exchange which we observed a total of £41.0.0 was given in cash, plus £13.19.0 worth of hambo and di. It is significant to note that it was the closest relatives who gave cash (or cash and valuables) and generally the more distant ones (or close ones who had no access to cash) who gave traditional valuables. Likewise the most important of the recipients kept the cash, and the traditional valuables were distributed to the more distant kin.(1) At a birthday feast which we observed only cash was contributed.(2) It is apparent that money is now of greater importance than hambo and di even in local ceremonial activity.

The total value of traditional valuables held in the village is less than that of cash savings (see p. 54). Savings in cash amount to 24% of annual cash income in the village and the remainder of the income is used for current expenses. Cash circulates much more rapidly than valuables and is used for a greater variety of transactions. It is likely that the relative importance of cash will continue to increase.

Income and expenditure

Details of cash income and expenditure were collected in respect of the first eight months of the year and are

(1) For a fuller report on this wedding see Hogbin, 1963.

(2) See Crocombe, 1963.

There is a clear hierarchy of priorities among the various activities with which the Inonda people can occupy their time. Serious illness, of course, precludes any other activity. Unless suffering from illness the men give priority to wage labour (in most instances this was heavy manual work). In the absence of paid work, social obligations connected with life crises take precedence over all other activities (except the harvesting of food). During our survey, men spent an average of 15.3 hours weekly on social obligations associated with life crises, and on travel (which is generally related to social obligations) and women 23.0 hours. During events associated with life crises people do undertake subsistence activities, but almost exclusively harvesting and hunting to provide food for the festivities.(1) If there are no life crises in the offing then priority is given to clearing, planting and weeding the gardens in order to ensure the food supply. Thereafter, free time may be used for cash cropping, the making of artifacts, or leisure.

The effect of life crises on cash cropping was markedly different from that on paid labour. During the survey, villagers who were not engaged in paid labour spent a considerable amount of time preparing for a puberty ceremony and a birthday feast and did not work on their cash crops during the periods of preparation. When a villager died, for the three weeks of mourning following his death, nobody worked on cash crops as this would have been contrary to accepted codes of respect for the dead. Those who were engaged in wage labour, on the other hand, did not take any time off to prepare for either the birthday feast or the puberty ceremony, though they did assist in their off hours. When the death occurred, the employees, including a son of the deceased, took only two days off before resuming their jobs. The cultural restrictions on productive activity during a period of mourning, and the obligation to give priority to feast preparations over economic pursuits,

(1) An interesting instance of the adaptation of traditional obligations to serve modern economic ends was noticed during our stay. It is common for a prospective groom to assist his prospective father-in-law with housebuilding or bush-clearing. One ex-Inonda man who had taken a block in the government resettlement scheme got his prospective son-in-law (who lived in Inonda) to work in his (the father-in-law's) coffee garden. As the son-in-law was socially of lower standing than the bride and as he was more anxious about the match than she, the father-in-law was able to derive several weeks free labour from both the groom and his sister, with occasional help from their mother and other relatives.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land giver/land taker; human partner/spirit partner. In all these cases the equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are 'translation rules', i.e. rules about the translation of sentiments into prestations and about inferring sentiments from prestations received. These rules are elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest equivalent of *why*? is *do eto*?, meaning: what having been done, what having been?) I found that (except for identical return gifts), such questions were usually answered in terms of sentiments felt or professed by the donor towards the recipient. Bridewealth was always explained as a way of appeasing the wife-givers' anger at the taking away of their daughter. This anger is not just in the wife-taker's mind but is expressed by the wife-givers by certain stock actions and phrases (as in any joking relation) behind which there are individual variations in genuine attachment to the daughter, genuine aversion to the affines and shrewd calculation. To give another example, many feasts are made in order to restore amity between groups, in which case the small preliminary gift of betel nut and food accompanying the invitation (*sope ikari*, Schwimmer 1973: 151) would stand for an offer of amity (translation rule) and acceptance of the invitation would signify the prospective guests' willingness to forget past grudges.

Semantically, gifts encode sentiments in many ways: by what is given, how much, of what quality, in what manner, where, when, in the context of what relationship and so on.[2] The recipient decodes: he reads the donor's sentiments in the prestation—the only language that, in the cultures discussed here, does not lie. Words are not to be trusted: but a gift is sacred like a statement under oath. Sentiments do not, of course, objectively explain gifts but the translation rules specify what message a particular gift conveys about the donor's sentiments. While social anthropology may not be interested in sentiments as such, it should be interested in the codes in which they are ritually expressed and in which the receiver is urged to change his own sentiments. To the extent that the principle of reciprocity has weight in a society, conflict will tend to be resolved by prestations that will re-establish sentiments of amity rather than by the interpretation of (often ambiguous) rules of law. Such prestations recompense the distress caused rather than the torts committed.

The rest of this article will present an example of semiotic analysis of an exchange system. This analysis, based on Orokaiva data, starts (part II) by investigating terminology used in discourse about gifts, debts, exchange and reciprocity. It explores the relation between the constitutive rules and the ideology of reciprocity.[3] The second step in analysis (part III) will relate this ideology to the overall Orokaiva world-view, thus demonstrating that the principle of reciprocity is not an observer-improvised category but an integral part of the conceptual system. Finally (part IV), we shall consider the relation between the constitutive rules and transactional practices and test Sahlins's theory of exchange against the semiotic analysis of Orokaiva data.

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

461 be acquired without too much hard labour or threat to status, and only
436 if its acquisition does not involve foregoing other more highly valued
437 benefits. Thus, the market has a great elasticity of supply: when
435 the price seems right to the Orokaiva, supply suddenly emerges from all directions; when the price is lowered, there is suddenly no supply at all. The investment of effort is at once directed into different avenues: subsistence gardening, house-building, a project for the mission, or a hall for the women's club, or a hunting expedition, or practises for a dance.

177 Comparison with Inonda: In this section I have discussed a small
184 number of acculturation variables as they apply to Sivepe. In general they apply to Inonda also, but there are a few minor differences to be mentioned. The most important of these is that whereas one can speak, in Sivepe, about a certain stage in acculturation reached by the community, it is less easy to do the same for Inonda where, at one end of the scale, we find fairly young men without cash-cropping skills, without school education, and almost entirely aloof from the money economy, while at the other end, one man has become a government driver and would need to be considered, in every respect, as more acculturated than any man of the same age group at Sivepe. It would be wrong to suggest, however, that acculturation in Sivepe was homogeneous; nor that the conservatism of part of Inonda is necessarily a long-term phenomenon.

There is no difference in food habits between the two villages, except that the government driver, having more money, eats better. In respect to clothing, it seemed that in Sivepe young women are a little more prone to cover their breasts than in Inonda; this is of course very much a matter of fashion and can change in months. With regard to housing, changes were actually occurring during the year I was in the field. Houses were being enlarged up to approximately the Sivepe size, and this programme was explained to me as due to the forthcoming feast at which the Seva people were invited and the new floor space was needed to accommodate them. The argument was thus not quite the same as at Sivepe, where the larger houses were thought of as a necessary part of "iji eha," the new age. "Timber" was not used in Inonda, all the walls being of sago. The "timber" fashion never travelled as far East as Inonda; I doubt whether Inonda had enough suitable trees and, furthermore, Inonda did not have the same shortage of sago. Though sago was rare on Inonda lands, the residents had a plentiful supply from other lands belonging to relatives. At Inonda, only some of the people used rubbish holes, whereas the others threw their refuse into the bush. On the other hand, the village was most plentifully and attractively laid out with shrubs and ornamental plants. Inonda, built a special feast house for their visitors from Seva, whereas Sivepe did not do so for their visitors from Togahou. This definitely reflected a non-traditional attitude in Sivepe.

177 In the attitude to money, and to education, Inonda was clearly
436 split between the traditionalist and the modern faction. The modern faction was, in fact more money-oriented than were the Sivepe people.

●583

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepa people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepa people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepa to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepa
621 and Inonda are of different population size, Sivepa having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that [614] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timumu and modern Sivepa still contains roughly the same family alignment except that the members of the Timumu clan are now calling themselves

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16)[A] shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a bridepri.e to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and hi- coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be [881] made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten.

● [583] Similarly, the inclusion of money in bridewealth is an innovation which, [436] once made in a homogeneous community, is bound to become standard practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at
798 Inonda, and only one, as far as I can find out, in Sivepe--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the
871

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 The Orokaiva of today has to act in conformity with two
177 conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 There is, for instance, a taboo on using the names of affines.
178 When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 The temporary labour migration of young men (who sometimes
167 leave wives behind in the village) continues a traditional pattern of behaviour as young men used to go out in the same circumstances to
178 hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables
178 such as shell necklaces and feathers, cooking pots, but in addition
583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 There used to be a ceremony to which a boy was subjected at
179 or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

731 Immediately after the eruption, the Sangara people decided to waive all bridewealth, so that a large percentage of the women in [583] Hohorita were married without one. At the present time, bridewealth is reinstated, and young men go to neighbouring plantations, which are [464] plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at [595] weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepa, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21)[A] The persons who returned to Hohorita 434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepa (about $100 per annum).

871 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other 563 villages discussed, as the population is drawn from different parts 592 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement 591 which was, according to informants, made by a popular meeting shortly 582 after the eruption. According to this arrangement women who married outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A [See Cat. 116, p. 228--Analyst]

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of EPΓON and TEXNH.

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 602 578 led to serious quarrels, especially if the girl had been kept by her parents or brother for an exchange marriage. Usually, these quarrels were settled in due course upon payment of a suitable bridewealth and sometimes by a subsequent marriage for which the abductor's family provided the bride. Williams comments:

> The remarkable gestures of hostility against the husband's people which sometimes characterise Orokaiva marriage, i.e. the attempted dragging away of the bride by her people, the humiliation of the bridegroom, the damaging of his village and the bellicose demonstrations at the taking over of the *dorobu* (= bridewealth), all properly belong to the irregular methods of capture and elopement; they are the aftermath, the retaliation (1930:149).

583 584 The third and fourth marriage forms distinguished by Williams are purchase (i.e. obtaining a wife in exchange for *dorobu*) and exchange (*mine*, i.e. an arrangement whereby two men each make a true or classificatory sister available to the other). It seems that Williams did not differentiate clearly between modes of obtaining a wife and modes of making a valid marriage contract. One might obtain a wife in a number of ways. Certainly, capture and abduction seem to have been the most frequent at one time, but there were also child betrothals; long-standing preferential arrangements between villages; romances leading to sister exchange and marriages to seal political alliances. There was the whole gamut between choices made by lovers without parental approval and choices (probably relatively less frequent) made by parental fiat. But there were only two ways of making a valid marriage contract, namely *dorobu* and *mine*. Williams himself comes very close to this view towards the end of his chapter on 'Marriage' (1930: Ch. IX). He also maintains, no doubt correctly, that in Orokaiva thought *mine* appears as the 'ideal', i.e. preferential, mode of contracting a marriage:

> It appears that marriage by exchange is preferable to marriage by purchase – at least in the eyes of the marriageable man, and probably also in the eyes of his elders who sympathise with his desires. We may perhaps go so far as to say that the actual buying of a wife only takes place when circumstances make present or future exchange impossible (1930: 149).

This seems to place Williams' theory firmly on the side of Guiart's theory of marriage in New Caledonia: exchange marriage becomes the preferential mode, the 'model', whereas marriage 'by purchase' is demoted to the status of an ecologically caused departure from the 'model'. In this chapter I shall argue that Williams' Orokaiva theory reifies the folk model and conceals some of the complexity of Orokaiva social structure.

4. *Elements of Restricted Exchange*

582 583 Marriage rules related to the principle of restricted exchange are actually more numerous than Williams supposed. They must be briefly reviewed before we can argue cogently that the principle of restricted exchange does not suffice to account for the rules governing the total Orokaiva marriage system. Williams was entirely right in supposing that the Orokaiva have preferential sister exchange

5: Schwimmer E-4,5 . (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

437 476 again reflecting assistance given by young people from outside the village. In addition to the two Seva men, whose help was requested by the entrepreneur, a young married couple came from Kendata village to assist household 17. These were the children of the sister of the household head's wife, who is also from Kendata.

Assistance in hunting and butchering of game shows marked seasonality, falling almost entirely into period I. This reflects the concentration of feasting in the same period, when men will request the help of those noted for their skill in hunting to provide the necessary meat.

Assistance in household tasks such as collecting water and cooking is mostly given by visitors, particularly women, from outside the village (see Table 11:16). The widow, however, received considerable help from two villagers when she made about 20 tapa cloths. Household assistance accounts for only 5 per cent of the subsistence services.

437 Most cash sector services are given in establishing or tending commercial crops, particularly the pruning and weeding of coffee gardens, which accounts for 55 per cent of the time disposed and 39 per cent of the time acquired. One man received assistance from close kin (his mother and sister) in clearing and staking out a new coffee garden.[1] One-fifth of the labour given was in weeding cocoa on a settlement block across the Girua River, reflecting an obligation incurred by one householder who had married the settler's step-daughter. Assistance received by the trade store owner in operating his store and in marketing other produce accounts for most of the other services in the cash sector. Labour assistance in the cash sector accounts for only 12 per cent of all services given, but assistance in the main task, maintenance of coffee, [433] exceeds that given in many subsistence operations and equals the amount given in hunting services. Thus, although the cash sector remains in some ways (as in the circulation of cash itself) peripheral to the village economy, it is integrated to the extent that it provides a recognised channel for meeting obligations through labour services.[2] In some cases, the receipt of assistance requires a return gift of cash, such assistance being one of the few sources of cash income available for old people or for women. In other cases, as with the settler's son-in-law, assistance in the cash sector is a means of meeting a traditional obligation. In sum,

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[1] See p.246.

[584] [2] Crocombe and Hogbin (1963:81, footnote), referring to assistance given to the Girua block settler by his son-in-law, point out that traditionally a prospective groom would assist his father-in-law with house-building or garden clearance.

[TEXT CONTINUED ON PAGE 584]

583 is still transferred in most marriages, including those which take
177 place in a church.
799

Polygyny was accepted but probably not frequent in traditional
595 Orokaiva society. In spite of mission opposition there are still
614 instances of polygyny but the great majority of marriages are
582 monogamous. Marriage outside the clan is considered preferable
[621] but there are numerous cases of marriage within the clan. The
591 village is not considered an exogamous unit. Marriages are usually
patrilocal but this is not a definite rule (cf. Williams 1930:130-3).

III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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1 See map, p.84 A

2 See diagram, p.85 B and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

where he was headman for about 12 years. In 1960 he moved his household to a block he was allocated in a land settlement project a short distance from Inonda across the Girua River, but he continued to exert strong influence in the affairs of Inonda. 584

A man from Sewa wished to marry the girl but her father and brother opposed the marriage because, they said, her married sister at Sewa was not happy there. When the present groom returned to Inonda in 1962 she was attracted to him and rejected the Sewa man in his favour. The Sewa man's family were displeased and it was rumoured that they were responsible for the sorcery which caused the groom's father to die.

Late in June, without her father's permission, the bride stayed in the groom's household for a few days and the couple made it known that they wished to marry. The bride's father and brother, especially the former, opposed the marriage. They gave several reasons, but it is difficult to know which was the most important. They said they were angry because she 'ran away' to live in the groom's father's house and that they wished her to marry a man of better prospects and from a family of greater prestige. Her brother, formerly a mission teacher, said she should be baptized so that she could have a church marriage, but this did not happen. Both bride and groom were of the Andiriha clan, but this deviation from the Orokaiva preference for clan exogamy was never openly used as a basis for objection to the marriage.

The bride-wealth for the marriage was set, principally by the bride's father, at $200 in cash and the equivalent of $200 comprising a pig, traditional valuables,[1] household utensils and food. Villagers considered this an extremely high price and evidence collected in the village suggests this was so (see Table 1). An Orokaiva research assistant who had travelled widely through the area said it was unusually high for a small clan such as the Andiriha, although not unusual for large clans.[2] Moreover, as the marriage was endogamous to the clan, the groom could not call on the entire clan's support. 583 [114]

The bride's father said he needed the money to establish a retail store and to buy a motor vehicle, but in September 1965 he had not realized these ambitions. His opposition to the marriage may have moved him to set a high price in the hope of discouraging the groom. However, informants said it was not unusual for a parent or guardian to make a display of anger towards a daughter's [584]

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[1] Traditional ornaments, and feather head-dresses will be referred to collectively as 'traditional valuables'.

[2] C. Burau, personal communication.

Table 1

583 Bride-wealth paid for three women married into, and two marrying out of Andiriha sub-clan, Inonda

	In 1	In 2*	In 3	Out 1	Out 2**
Approximate date	1961	1958	1953	1960	1964-5
Cash	$74	$22	$40	$22	$74
Pigs	2	?	1	?	nil
Traditional valuables, utensils, etc.	Yes	Yes	Yes	Yes	?
Food Approx. $12	Yes	Yes	Yes	Yes	?

* Woman with illegitimate child.
** Required of a man from Madang District for a girl of Joremba'embo lineage.

[584] suitor (cf. Williams 1930:31, 141, 144, 149-50). The people of Inonda were aware of high prices paid for women near Port Moresby[1] and the bride's father, a man of high prestige in the area, may have been attempting to raise local prices towards the level of prices in urban areas.

The groom and his father complained about the price but accepted it as a challenge which must be answered by payment.

Between the time the price was set and the time it was paid, bride and groom spent much time together. For about three weeks the groom and a classificatory sister lived at the bride's father's farm where they helped with farm work. One weekend the bride, groom and bride's father went on a fishing expedition, indicating that the bride's father had consented to the marriage.

583 614 768 About a month before the bride-wealth was paid the groom's father died and the responsibility for organizing the payment passed to the head of the Darafa'embo lineage of the Andiriha sub-clan in Hohota II. This man will be referred to as 'the organizer'. Ideally the responsibility would have passed to a senior man of the Jegotumo lineage in Inonda, but the groom himself was the most senior. The responsibility could have devolved to the senior man of Jegotumo lineage in either Hohota I or Kakendetta, where Jegotumo was represented, but the only Jegotumo

[1] Bride-wealth exchanges in Hanuabada, Central District, at the time were mostly in the range $600-$1200 in cash plus an equivalent amount in traditional valuables (N.D. Oram, personal communication).

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[621] forms an important social function for it is here that quarrels are settled, marriages arran-
[584] ged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[289] The traditional body covering for both men and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout
[171] the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A) [TEXT CONTINUED ON PAGE 12-A]

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 Relationships of this sort are sometimes intertribal as women abducted by enemies were in the habit of maintaining contact with each other, and such contact was inherited by their sons and daughters. When men belong to an *otavo* relationship (see p. 67 below), their wives address each other as *jao*.

602 (c) *Simbo*. Outside the cooperative group, social relations (even with consanguines) are spoken of as voluntary. This applies especially to distant consanguines and non-resident consanguines. Thus, the kin category *simbo* must contain many members, if purely genealogical criteria are to be used. If two consanguines share no plant emblem and are related through siblings of the opposite sex, they fall within the *simbo* category (the term is not precisely equivalent to cross-cousins). There is no limit on kinship distance, and persons recognized as *simbo* may be cousins several times removed. Often, it is impossible to reconstruct the genealogical connection. Like Orokaiva kin links, this one is simply inherited from generation to generation (bilaterally, in this case).

As one cannot get informants to list more than ten or twelve *simbo* families dispersed in a number of villages, one must assume that *simbo* links, like those of hereditary friendship, are often forgotten. On the other hand, one may always rediscover a *simbo* while on a journey, so that there is a reservoir of unused links that can be revived. In general, however, a relationship can be relied upon only if it is kept alive by periodic contact.

[582] The best translation of *simbo* would probably be: potential preferential marriage partner. While the primary meaning refers to a cross-sexual relationship, [572] the male *simbo* have a special kind of bond which fits neither the cooperative nor the competitive exchange category. Literally, *simbo* is a [584] marriage arrangement made when a girl has gone through the ceremony of menstrual seclusion and *kogumbari*,[8] but is not yet marriageable. Two aspects of the relationship between male *simbo* which are always stressed are the great love *simbo* have towards one another, and the rigorous taboo observances that are customary and strictly enforced.

The taboos resemble those practised between *dambo* (brothers-in-law); this is reasonable because if a man marries his female *simbo*, her brother becomes that man's *dambo*. The same taboos exist against mentioning the *simbo*'s name. All quarreling in the presence of a *simbo* is strictly forbidden. If a quarrel occurs nonetheless and *simbo* orders one to stop, one must obey or else pay a pig as compensation. If *simbo* touches any of one's possessions, one must give that object to *simbo*. A request made by *simbo* cannot be refused. This last rule about possessions and requests does not apply to *dambo*.

[881] 8 The term means decoration and is applied to face-painting, dressing the head with feathers, the wearing of shell and bone ornaments, armlets, fur arm pendants, and the like. A boy or girl is first decorated on the occasion of initiation. The dressing up is then usually done by an expert in the clan and paid for by the parents. For details see Williams, 1930; Schwimmer, 1970b, 1970c.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 ground, and with harvesting, which he may not do. Upon marriage, the new wife
241 is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the
[581] land of her new affines. Her mother-in-law has to instruct her and it is only after
[585] such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

423 As against these male and female obligations, we may note some clearcut
593 rights: the man's right to his wife's labour and the wife's equally important right
241 of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may
[578] choose to make outside the household, providing that she manages the food
[586] supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

[431] This brief discussion of social practices has already indicated that a garden
[462] plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the
423 light of rituals, myths and indigenous explanations. It will be best to begin with
241 some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom
[562] land may be assigned may be either male or female. Among the Orokaiva it is
[462] common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the
[989] crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and
[775] the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gagu*. It will be noticed that the position of the taro on the *gagu* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

Householders with affinal and kinship ties to the bride's mother (category 5) received a larger share of the bride-wealth per household than all others except those of category 1. Moreover, the brother of the bride's mother, another close patrilineal relative of the mother and the husband of the bride's mother's sister (with whom the bride had stayed while her father was at the war) were given cash. These three men received comparatively large shares of other components of the bride-wealth. One of the reasons the households of this category received comparatively large shares may have been that the bride's mother's clan (Tandai'undi) from Ajoro village had formerly transferred rights to a substantial area of land to the Andiriha sub-clan in Inonda. The Inonda people are afraid that if the land is reclaimed, a court may uphold the claim and they therefore attempt to remain on friendly terms with Tandai'undi clan and Ajoro village. This appears to be manifested by generosity in their exchange relationships with Ajoro. 583

The bride's sister's husband and his father (category 6) received small shares.

The only man who received a share but who had no genealogical relationship to the bride was a settler on the Girua land settlement scheme where the bride lived (category 7). His inclusion indicates a flexibility in the exchange system wherein residential proximity without historical or genealogical relationship permits the establishment of exchange relationships.

VI

Less than half the cash demanded was paid and villagers considered that the value of other components of the bride-wealth was well below the target set by the bride's father. At the time they said that more cash would be paid when the groom's supporters sold land to the Administration, but by September 1965 no sale had been effected and no further bride-wealth had been paid. The bride's brother regarded the exchange as complete, but said that the bride's group would have demanded full payment if the groom's father had been alive.

The couple express intent to marry in a church but it is doubtful whether this will happen and even if it does, no additional payment will be made. In February 1964 the groom prepared a customary feast known as pene to mark the birth of his first child but this was not part of the bride-wealth. It was shared by the bride's father, brother, and the other household head of the Joremba'embo lineage in Inonda and her mother's brother from Ajoro. [585] [851]

buy cheap cloth and durable iron or aluminium pots at the trade stores. Although every housewife now has two or three large manufactured pots, she keeps them for cooking the food for feasts. Most of the daily meals are still prepared in clay pots but few of these pots were obtained by the old barter methods; most were *obtained as gifts from friends* or relatives. At one wedding, for example, the bride received fourteen clay cooking pots, in addition to a large supply of mats, string bags, enamel plates, and dishes: enough to last for years to come.

ECONOMIC CHANGE AND THE PATTERN OF SETTLEMENT

A very close relationship exists between economic change, particularly the planting of cash crops, and changes in the pattern of settlement. Although most development has occurred in the last twenty years, there is evidence, supported by the oral traditions of Yega elders, to show that some evolution of settlement had occurred even before the first contact with white men. By tradition the Yega were sea people. This probably means that they arrived as migrants and originally spent most of their time aboard their canoes and lived mainly upon seafood. They settled first on three small islands, Baroda Deuga, about half a mile north-east of Waususu Point (Fig. 9). These islands are today only a few feet above high tide and are composed entirely of coarse

[P·12-A]

593 further such lucrative young females. Of the six, two were Sivepe
592 women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers
464 through migration is already serious (37.8% in Sivepe and 25% in
433 Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour
887 had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows
[463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages
595 were always consecrated at the time the couple was baptised. Several
585 people had at one time been divorced, but this was prior to the time
586 of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village
464 was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study
114 carried out in Sivepe by my predecessor, Mr. Waddell. As he has been
464 A [See Cat. 116--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems.

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive.

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility.

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law.

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sovai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other man took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

592 Informants told me of one rule regarding household composition
606 which is likely to be quite ancient. This is that a man and his wife may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do not like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working for wages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)A

592 My own impression is that the normal household is composed of a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by themselves, even if they have no young children living with them and
●[589] do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi.
166 Seeking an increase in population, Sivepe leaders frequently encouraged dissident minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
621
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures *'ne relèvent pas des structures élémentaires' (ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 *Min*: Sister exchange marriage. *Dor*: Marriage 'by purchase'. Under this code, we may define the following terms:

1. *Terms principally used for addressing consanguines*:

epe:	Ef	M	Sr	Gl	A
	M	Sr	Gl	A	Min
tata:	Ef	F	Sr	Gl	A
	F	Sr	Gl	A	Min
ahije:	F	Jr	Gl	A	
	Jr	Gl	A	Min	

2. *Exclusively affinal terms*

atovo:	Em	M	Sr	Gl	//	A	Dor	
imbohi:	Em	F	Sr	Gl	A	Dor		(Williams: *imboti*)
behere:	Em	SS	Gl	X	A	Dor		(Williams: *betere*)
dambo:	Em	SS	G–O	//	A			(Williams: *nabori*)
	Em	SS	G–O	X	A			(Williams: *betere*)
hovatu:	OS	G–O	A					
bi:	Ef	SS	G–O	A				
imi:	M	Jr	Gl	A	Dor			

601 The fact that a brother and sister, upon marriage, use different types of
602 affinal kinship terms corresponds to a fundamental difference in their social position in relation to their affinal family. The brother, under a *dorobu* marriage contract, remains a perpetual debtor to his affines. He has deprived them of their most precious possession, a nubile daughter, without giving a woman in exchange. Even though he has given bridewealth and done bride service, and continued making prestations of many kinds, these propitiatory offerings do not wipe out the debt. The *imi* must therefore always act with humility and feel shame when he meets his *atovo* and even more, his *imbohi*. His sister, however, is under no such burden in her relations with her own affines. Her position is precisely the same, whether the marriage has been established by *mine* or *dorobu*. Her use of consanguineal terminology expresses her far greater familiarity and identification.

[591] It might be argued that such familiarity and identification is the direct consequence of patrilocal virilocal residence, but such residence arrangements do not always lead to the terminological differences I have described. These differences, however, are consistent with an ideology which emphasises the detachment of women from their natal clans and their close attachment to their mother's village to which they are supposed to move upon marriage.

842 Such an ideology is further emphasised by the Orokaiva notions about
614 paternity. Orokaiva believe that a male child is formed in the womb as the result of sexual congress between father and mother, but that a female child is formed by 'the mother sleeping alone'. The male child therefore carries the 'blood' of the father, enabling the child to carry on the father's lineage, but the female child does not. She is still a member of the paternal clan but the connection is evidently viewed as social rather than physiological. Accordingly all females are named by their mother's consanguines, in contrast to males who may be named

614 36 their previous location[1] and the territory of their traditional enemies, the Divinikovari and Togahau, but informants disagreed as to whether this occurred before or after Europeans had established control of the area.

Timunu clan had also originated well to the south near Sasembata (according to its members at Sivepe) but fairly early in the century part of this clan too occupied land around Soroputa nearer the Togahau. Other members of the clan live at Sasembata, Hamburata and Kakita and possibly other villages.

The ancestors of members of Seho clan in Sivepe are said to have moved to the nearby village of Hanimkambari from an area closer to the source of the Sohu River on Mt Lamington. While at Hanimkambari they clashed with the first government patrols in the area. About 1910 some of the Seho people established another village, Asina, nearer the present site of Sivepe, later moving to join Timunu and Jegase groups at Euru. These old villages have now been abandoned but Seho clan is represented in numerous other villages in the area.

c. Localized descent groups

621 Our comments on the clan and village have emphasized that the typical village consists of several groups from different clans. Migrations also have usually been by representatives of particular groups. We now turn to an account of the individual's kinship and affinal relationships within the village. This aspect is best approached with an examination of post-marital residence.

591 (i) Residence. Post-marital residence is ideally patrivirilocal. But where residence is found to conform to the ideal, any reference to this norm should be supplemented by further data on the links between co-resident kin if we are to give an adequate account of the kinship composition of local groups; moreover, adults have a wide choice of residence. In fact, of the 12 householders in our sample, 5 were not living in their father's village, although 1 of these was living with his adoptive father (his mother's second husband who was a member of her natal village); the other 4 were living only with matrilateral or affinal kin, or both in one of these instances.

It is significant that only 1 of the 7 men remaining had established his household in a village to which he was affiliated

[1] This location may not in fact have been near Sivepe. It may have been Ombisusu (near the pre-contact village of Wasida) which Williams (W.10) says Jegase people abandoned to establish Suin after the arrival of the government. This may have involved a move down the slopes.

591 only through his father and even in this case his sister, her children and his daughter subsequently married in the village so he is now also living with other cognates and with affines. The 6 other men are living in the same village as their father's kin, but for 4 of them this is also their wife's home village, for another it is also his mother's village and the last man is co-resident with patrilineal, matrilateral and affinal kin simultaneously. In several cases certain people fall into more than one of these kinship categories in relation to 1 person. Six householders have sisters who have married within the village.[1]

In view of the fact that such a variety of relationships is found in this group, Hogbin's and Wedgwood's outline of Orokaiva local grouping, which is based on secondary sources, does not seem relevant to present day social organization in this neighbourhood. They regard the Orokaiva as patrivirilocal[2] (1952-4:64 ff.) and suggest that the parish or local political unit is an exogamous patrilineal group whose members were strongly united and unready to assimilate outsiders. Like Williams (1930:131-3) they mention frequent exceptions to this rule of post-marital residence yet seem to underestimate the degree of variability in the composition of the village and to overemphasize the solidarity of the unilineal group and the importance of the preference for patrivirilocal residence and of exogamy in localized patrilineal groups.[3]

Williams on the other hand says 'the Orokaiva organization very nearly approaches a bilateral system, though in theory it is patrilineal' (1925:407) and points to 'the laxity of marriage [582] regulations'. Even in the small Aiga clan 'exogamy is not a hard [614] and fast rule'; preference for intraclan marriage is sometimes expressed (1930:131-2). It may be thought a 'proper thing to keep the women in the village' - which Williams here implicitly equates with clan - 'in the hope of building up its population' (1925:408).

621 A striking proportion of marriages are contracted between members of groups in close proximity. Data available for 35 marriages contracted over 3 genealogical generations by the householders of our sample, or by their parents, siblings or children, show that in 22 cases 1 spouse came either from the

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[1] Four instances of brother-sister exchange marriage among members of Sivepe were recorded (i.e., 8 marriages).

[2] Williams (1930:131) uses the term 'patrilocal'.

[3] The local organization in this neighbourhood seems closer to the category of 'osculant multicarpellary parishes' than any other (see also Hogbin 1963:32). However, we believe that the abstraction, if legitimate now is not the most informative.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
[611] clan of his or her father. All members of a clan claim, but cannot
necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which
trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[572] changed at any time. The composition of individual households
[574] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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1 Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

2 For a fuller account see Rimoldi 1966:29-75.

3 Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

time. In effect Gorukari is concerned essentially with producing and preparing for consumption the staple food, taro.

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The figure of 49.0 hours per week is somewhat misleading in the case of such a woman where so much time is taken up with care of children and minor household tasks which do not lend themselves to quantitative analysis. In following her movements through a single day it was found that, between rising at 0610 and finishing the evening meal at 1845, Gorukari spent only 1 hour 50 min. actually resting or eating. She was therefore active for a total of 10.8 hours compared with an 'activity' figure of 8.1 hours. From 1845 until 2220, when she retired, she sat and talked with her husband. Assuming this to have been a typical day, a woman such as Gorukari has an activity week of about 75 hours.

Social obligations account for 3.1 hours per week, 55 per cent spent in visiting. Not only is this substantially less than the figures for Linton and Palminus but it reflects a somewhat different emphasis. While the role of women in ceremonial life is subsidiary to that of the men, they are often responsible for the more informal exchanges which are a characteristic feature of Orokaiva life and, since the society is typically a patrivirilocal one, it is to be expected that the women spend a significant amount of time visiting their kin.

[562]
[591]

Gorukari's primary concern with food gardening and household tasks is expressed in the general distribution of her time. In particular she is more concerned with subsistence activities than the sample in general, these accounting for 79 per cent of her total activity time, while she also places greater stress on productive tasks. These facts are manifested in both the infrequency and short duration of her absences from the village which amount to only 1.1 per cent of potential survey days.

Olga. Olga is aged about 46 years and the wife of the most progressive of the older generation - a man with extensive non-traditional experience. They have eight children, the eldest of whom resides, with his family, next door. The two youngest, girls aged 10 and 14 years, attend Sasembata school and still live at home. All but one of the other children are married and normally reside elsewhere.

Subsistence gardening and household tasks dominate Olga's activities to an even greater extent than they do Gorukari's, accounting for 89 per cent of total time in an activity

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

In pre-European times, according to present-day informants, the most important feasts held by the Orokaiva people were associated with initiation, marriage, death (though apparently not birth), and the enhancement of prestige. Feasts were also held to mark the transfer of land, the re-establishment of peace between persons who had been quarrelling, resumption of residence after a prolonged absence, and the lifting of prohibitions between a man and his mother-in-law.

It is impossible to know with any certainty the scale of feasting prior to European contact for, though a detailed study of these people was made in the late 1920s (Williams 1928 and 1930). Government patrols had brought tribal fighting to a halt some years before. It is therefore quite likely that, with less time taken up in warfare and greater freedom of movement assured, the feasts and ceremonies of that day were more elaborate than those of the pre-contact era.

While feasts are still held today, the relative emphasis given to each category has changed considerably. Feasts associated with initiation are held on a greatly reduced scale and often omitted altogether, but those relating to marriage and death remain important. The taro festivals, the main function of which appears to have been the enhancement of prestige, are still held in some places but have been abandoned in others. The other feasts listed above are still held occasionally, with the exception of those relating to the lifting of prohibitions in relation to mothers-in-law.[1]

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[1] Since the above was written, such a feast was held by a family from this village but now living on a government resettlement scheme about two miles away. The atypical circumstances of the new residence pattern may have caused the revival of the feast (known as poikari) because when the daughter of the settler married, the new husband was brought to live with them to help with cash cropping. This is contrary to the customary pattern of virilocal residence. Living in such close contact with his mother-in-law probably made the highly formalized relations between them difficult to maintain. The feast was thus invoked to sanction more relaxed relations between them.

583 is still transferred in most marriages, including those which take
177 place in a church.
799 Polygyny was accepted but probably not frequent in traditional
Orokaiva society. In spite of mission opposition there are still
595 instances of polygyny but the great majority of marriages are
monogamous. Marriage outside the clan is considered preferable
614 but there are numerous cases of marriage within the clan. The
village is not considered an exogamous unit. Marriages are usually
582 patrilocal but this is not a definite rule (cf. Williams 1930:130-3).
[621]
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III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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1 See map, p.84A

2 See diagram, p.85B and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

619
423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
657 forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
[619] divided into sub-clans and lineages; descent is
591 patrilineal. On marriage, a girl leaves her
178 father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

614 An abbreviated table illustrating the Yega
613 social structure is given in Table 1. [P.6-B]

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens, 241 these seemed to be predominantly in the Northeastern part of the 311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepe is again in that area.

731 Inonda experienced three shifts since the eruption: first 361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses close together and little space between the rows--both post-eruption 659 settlements of Sivepe and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend to belong to different clans. A modern village will contain, in [364] addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [595] which the Americans laid down during the war. Sivepe got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including ● [591] Sivepe, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepe villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing 651 standards, village sanitation and roads. We find Wilfred Beaver, 364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

731 The experience of the eruption led to outside contacts that
171 would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the
121 eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

571 We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely
619 ego-centred model. I saw no evidence of groups of villages which
629 displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

571 Patrilineages were very shallow in genealogical depth.
613 Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis.
591 Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which [591] is hardly more than four miles away. Both the Soroputa men had married [582] Sivepe women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 582 The traditional pattern was for a man to marry a woman from a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 169 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 628 [582] Of the ten adult women living at Inonda, four came from the Sangara tribe, one from Kendata in the Sasembata district and the others from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

CHAPTER VI: Addition and Loss of Community Members

Though the population of Sivepa has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepa of two additional Jegase families and six Sorovi households. An analysis of Table 16A will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepa. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepa population, we find only six men of that age group and only three of these were children in Sivepa in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepa today as there were in 1951. It seems likely that this increase should in part at least be due to the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save a number of lives, even if the mortality rate is still high.

The migration of young women into and out of Sivepa is a continuous process due to virilocal residence; a far more significant demographic process is the outflow of men as a result of labour migration. Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timunu) sample were employed outside Sivepa in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepa and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepa," as these men had never lived in Sivepa at any time but had been residents of Gurombi before they became labour migrants. There were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21)[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

Hohorita does feel that it is held back by the present educational
891 provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
●591 which was, according to informants, made by a popular meeting shortly after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A [See Cat. 116, p. 228--Analyst]

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timusu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But recruitment to this status is not restricted to specific categories; any two people can become *namei*. These bonds provide some measure of control over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

(b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

Unfortunately, a male anthropologist cannot plumb the mysteries of this relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

If two unrelated young women of district A are *jao* and marry in villages B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give-taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

Conclusions

423 241 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 [614] Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) A This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and [461] strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

241 614 [592] We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A, [See Category 423, pp. 10, 25--Analyst]

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A,[See Category 461, p. 28--Analyst]

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which
trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[572] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils [476] and clothing are usually obtained from trade stores. For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and 'hingi' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly [417] in the early stages, but less frequently as they approach maturity. In the less densely settled areas where wild pigs are common, [136] such as Inonda, most gardens need to be fenced; when separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (Colocasia) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (Xanthosoma) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4).

[2] See p.23.

A, [See Category 102, p. 38--Analyst]

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[594] [1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A. [See Category 871, p. 307--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

433 subsistence holdings in Sivepe, three individuals had no producing staple foods in their gardens.

592 Three of the fifteen households surveyed comprise only a single member. Two of these were a married couple who were considered, for the purposes of the survey, as separate households on the grounds that the wife lived for only short periods with her husband, dividing most of her time between her brother's and her father's houses instead.[1] The husband and the third individual, an old man, lived in their own houses, although the former abandoned his on departure from the village in August. One widowed woman and her children had no house of their own but shared those of primary kin until the end of March when she left to marry a man in another village. A second family left at about the same time, in search of wage employment. Thus, by November 1964, the number of households had fallen to twelve while for most purposes the separated woman (household 8) had become a member of her parent's household (14).

All the identified households cultivated separate gardens. For most of the survey period, two households had attached to them the wives and children[2] of two men at work outside the District. Both household heads, in establishing a garden, set aside a portion for the sole use and responsibility of these women, as they were expected to contribute to the household's food requirements.

(a) Food gardens

24 [125] A detailed survey was made of the holdings of seven households, selected to provide a cross-section of the community in terms of status of head, structure of household and involvement in cash cropping. These data were then compared with that collected by Rimoldi almost two years previously (see Tables 4:1 and 4:2). While the small size of the samples, 11 and 7 households respectively, makes it dangerous to draw conclusions, a few observations can be made.

Table 4:1 reveals a fall of 44 per cent in the average size of holdings planted with taro (Colocasia) and sweet potato. In 1964, the maximum sizes of taro and sweet potato areas were much lower than in 1963. This is offset, however, by very substantial increases to three and nine times (respectively) in the average plantings of yams and Xanthosoma. The holdings of two young household heads were responsible for almost all of these increases.[3]

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[1] i.e. effectively there were only 14 households, as recorded in Appendix 1.

[2] In one case, the daughter of the household head and her son, and in the other, the man's wife and her son.

[3] One has established a yam garden of 0.16 acres and the other a Xanthosoma garden of 0.15 acres.

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Table 4:1

Sivepe: mean garden areas under cultivation, 1963 and 1964*
(acres)

Garden	Per head of population		Per able-bodied person (over 16)		Per household	
	1963	1964	1963	1964	1963	1964
Currently producing	0.14	0.05	0.27	0.10	0.57	0.20
Planted but not producing	0.12	0.11	0.23	0.20	0.48	0.43
Cleared only	0.10	0.04	0.20	0.08	0.43	0.17
Total area under cultivation	0.36	0.20	0.70	0.38	1.48	0.80

[125]

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Table 4:2

Sivepe: food plants per household, 1963 and 1964*

Crop		Average		Range	
		1963	1964	1963	1964
Taro (Col.)	(acres)	0.97	0.54	0.39-2.30	0.40-0.72
Sweet potato	(acres)	0.07	0.04	nil-0.20	nil-0.07
Bananas	(plants)	71	128	35-126	73-231
Sugar-cane	(clumps)	34	40	11-54	21-99
Ina	(plants)	88	54	nil-400	24-104
Yams	(vines)	65	202	nil-136	nil-892
Manioc	(plants)	few	10	few	2-30
Xanthosoma	(plants)	28	252	nil-91	nil-1027
Corn	(plants)	223	65	nil-442	nil-157
Pineapples	(plants)	nil	4	nil	nil-24
Cucurbits	(vines)	13	5	9-28	nil-14
Shallots	(plants)	few	1	few	nil-6
Beans	(plants)	17	15	nil-110	nil-63
Tomatoes	(plants)	nil	1	nil	nil-3

[125]

* Feb. 1963, 11 households, Dec. 1964, 7 households, all of which were included in the preceding survey.

Between the two surveys, cultivated area per head fell (see Table 4:1) to 55 per cent of the figures collected by Rimoldi and close to that considered the minimum requirement for shifting

554 councillor for the villages of Inonda, Ajoro, Hohota, Mosou and Sewa. He is the senior resident member of the traditionally-dominant lineage and the trade store owner. He initiated the building of the copra-drier and takes the lead in most other new undertakings and at times of crisis or dispute, though his views are sometimes successfully opposed. In land matters he defers to or seeks the advice of the oldest male resident.

Economic holdings

241 [126] The data on crop patterns and areas of subsistence gardens are presented with the data for 1962 given by Crocombe and Hogbin (1963:7-10). The figures for garden areas are not strictly comparable, since the 1964 data on garden areas, though not on crop numbers, were obtained by mapping from aerial photographs whereas the 1962 figures were calculated from the results of chain and compass surveys. This latter technique was used in 1964 for mapping the areas under taro and sweet potato. Other crop data were obtained by counts in the gardens. Information on holdings of economic trees and the inventories of household property were derived from interviews and were not checked on the ground, except for trees recently planted in the village surrounds.

[592] Although the mean size of household is 3.9 people, two households contain only one adult. There is considerable flexibility in residence and in arrangements for making gardens. For instance, the mother of the wife of one household head came to settle in the household permanently in July 1964; she maintains her own garden, which was cleared by her son and her daughter's husband. Another household comprises a widower who makes his own gardens and has the highest cultivated area of any household; however, his eldest son's wife, in a separate household, does some of his harvesting and prepares most of his meals. The widower also makes gardens for the widow who heads household 18. This woman lived with her two youngest children until August, when her eldest son and his family (household 21) moved into her house on the new village site. Another garden was made on her behalf by her brother in another village. Household 24 comprised the parents of two sisters who had married Inonda men. At first, they lived with household 23 at the old site but moved in October to join household 21. They maintain their own gardens.

(a) Food gardens

At the beginning of February 1964, the nine Inonda households were cultivating 27 gardens, at a mean distance from the village of 0.5 hours' walking time. In December 1964 the eight households remained after the departure of the Jego'undi man had 29 gardens at a mean distance of 0.3 hours' walking time.

241 In November 1964, the total area cultivated by the villagers was 10.27 acres. Table 4:8 shows the average area for each person, for each able-bodied person over 16 and for each household. The comparable figures for 1962 show that there has been a decline in the cultivated area of 15 per cent per person and per able-bodied adult, and 22 per cent per household, this latter reflecting the smaller mean size of households (3.9 in 1964 against 5.6 in 1962).

Table 4:8

Inonda: mean garden areas under cultivation, 1962 and 1964
(acres)

Per head of population		Per able-bodied person (over 16)		Per household	
1962	1964	1962	1964	1962	1964
0.31	0.27	0.67	0.57	1.47	1.14

Table 4:9 shows the crops produced in the gardens. As in Sivepa, there has been a marked decline (amounting to 49 per cent) since 1962 in the area planted with taro and sweet potato and in the number of sugar-cane and ina clumps, but there have been compensating increases in yams and Xanthosoma and lesser increases in manioc,

Table 4:9

241 Inonda: food plants per household, 1962 and 1964*
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Crop		Average 1962	Average 1964	Range 1962	Range 1964
Taro (Col.)	(acres)	1.3	0.70	0.4-2.6	0.24-0.92
Sweet potato	(acres)	0.2	0.06	nil-0.4	nil-0.18
Bananas	(plants)	81	88	12-145	34-144
Sugar-cane	(clumps	71	31	34-167	17-50
Ina	(clumps)	56	7	4-181	nil-18
Yams	(vines)	24	57	nil-61	4-241
Manioc	(plants)	10	14	4-27	nil-34
Xanthosoma	(plants)	5	39	nil-25	nil-138
Corn	(plants)	72	79	nil-140	nil-204
Pineapples	(plants)	1	17	nil-7	nil-43
Cucurbits	(plants)	2	12	nil-10	5-25
Shallots	(plants)	few	nil	n.a.	nil-4
Beans	(plants)	few	nil	n.a.	nil
Tomatoes	(plants)	few	1	n.a.	nil-6
Pawpaw	(plants)	n.a.	41	n.a.	14-78

* 1962, 8 households; 1964, 9 households.

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592 bananas, corn, cucurbits and pineapple. The change is probably due to the storable qualities of yams and Xanthosoma and the comparatively small amount of attention required during growth by each of the crops showing an increase. The slight increase in corn plantings is due specifically to one man sowing a 'catch-crop' in a garden cleared for coffee. The increase in the number of yam vines, on the other hand, is evident for several households. Although two households had no Xanthosoma, the others all exceeded the 1962 average. Of the four households which had more than 20 pineapple plants, two intended to market some of their produce.

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231 (b) Economic trees and livestock

Table 4:10 shows the average holdings of economic trees and livestock per household. Following the change in the village site, all householders planted several coconut palms around their homes

Table 4:10

Inonda: economic trees and livestock, 1964

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Item	Average per household*		Range (bearing only)
	Bearing**	Planted in last year	
Breadfruit	3	nil	nil-18 trees
Areca palm	1	6	nil-8 "
Coconut	17	25	6-35 "
Hauga	1	nil	nil-3 "
Pandanus	5	nil	nil-16 "
Sago	4	nil	nil-9 "
Mango	1	nil	nil-2 "
	Total		Range
Pig	2		nil-1 animals
Dog	6***		nil-2 "
Cat	2		nil-1 "
Fowl	7		nil-3 "

* Eight households only. Information was not obtained for one household, a widow originating from Urio village. It is unlikely that she possessed rights to trees in Inonda (cf. Crocombe and Hogbin 1963:47), although her sons would.

** One householder claims extensive holdings of the specified trees on the lands of his home village of Hohorita. These holdings, which he did not exploit during the survey and which are excluded from the above figures, include: coconuts, 30; areca palm 10; sago, about 50; breadfruit 20; pandanus, at least 50. The claimant is the sole survivor of a large family killed when Mt Lamington erupted.

*** Including 3 pups.

512 [751] [164]

Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433

Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

The organisation of work by households

592 461

Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887]

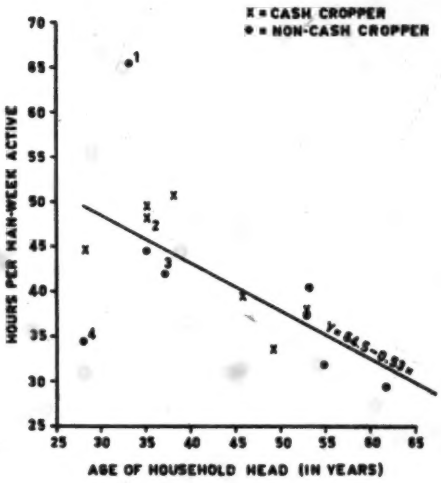
At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

592
461

SIVEPE FIGURE 6:6

RELATION BETWEEN ACTIVITY TIME, AGE AND CASH CROPPING STATUS, SHOWING THE LINE OF AVERAGE RELATIONSHIP BETWEEN TIME AND AGE



ANOMALOUS HOUSEHOLDERS:
1 Divorced woman, eldest daughter in full time employment
2 Divorced woman
3 Recent arrival, temporarily linked by marriage
4 Temporarily resident only
1 and 3 left the village part-way through the survey

of available labour time through sickness.[1] All seven households headed by people in the 45+ age group are characterised by a below average activity week. Only one other household is below average (4), a couple who were resident for only 12.3 man-weeks, before

[887]

[1] See Table 6:3. A

A, [See Category 164, p. 79--Analysis]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

592
461

leaving in search of employment on a plantation. These people had only recently arrived in the village and their brief term of residence suggests that their subsistence activities could not be considered fully operative.

The least active household, 6, consists of a single man, who is the oldest individual in the sample. While the time he devotes to the basic food producing and related activities (clearing, subsistence gardening, other subsistence food production) closely accords with the mean for the whole sample - 20.0 hours per week, compared with the mean of 19.4 - he devotes little time to other activities. For food preparation he is almost completely dependent on his married daughter living in an adjacent house. He therefore spends virtually no time in household tasks and his is the only household not participating in any cash producing activities.

The households headed by individuals under the age of 45 years are the most active. Furthermore, these households are almost invariably cash cropping ones. Fig.6:6 suggests a linear relationship between the amount of time spent active and the age of household head, although it should be stressed that the sample is small and the correlation coefficient is not particularly high.

There are many reasons for the inter-household variations in levels of activity including individual inclination and circumstances. In all cases a primary concern is to achieve subsistence. Householder 7 spent almost 2.5 times the mean time devoted to clearing as a result of his recent arrival in the village (and temporary linkage by marriage to Timumu clan). His decision to settle in his wife's village was largely motivated by its proximity to land over which he was a primary rightholder and which he had been prevented from exploiting previously by its remoteness from his paternal village. Similarly his wife (householder 8), prior to their separation, assisted him in the substantial task of clearing the site for their new food garden. While these two spent, respectively, 8.9 and 3.2 hours per man-week on clearing, two other households spent less than 1.5 hours per man-week. One was the widowed woman and young family who left to remarry during period I. The other was a somewhat senile widower who succeeded during the survey in attaching his married daughter's household to his own with the object of transferring responsibility for all gardening activities to his daughter's husband who would, in return, inherit all rights to his land.

Although the members of household 4 were, like householder 7, recent arrivals in the village, they spent little time in clearing because, as events subsequently demonstrated, they had no intention of remaining. But, displaced from the rest house by the researchers, they were obliged to erect a small house for themselves, hence the very high figure of 6.4 hours per man-week spent on other subsistence activities.

Table 6:3

Fitness: activity patterns of households over the whole survey period
(hours per man-week)

Household no.	1*	2*	3*	4	5*	6	7	8	9*	10	11	12	13*	14	15*	411 households Total	Mean	Cash cropping households Total	Mean	Non-cash cropping households Total	Mean
No. of adults	4	4	2	2	3	1	1	1	2	2	4	2	2	2	2	25		19		16	
No. of man-weeks recorded	91.0	79.3	53.7	52.3	66.0	28.6	17.4	26.6	50.6	41.7	73.6	16.7	48.6	42.0	32.0	712.9		436.2		276.7	
																(hrs)		(hrs)		(hrs)	
Clearing	3.2	3.8	3.9	3.3	1.4	4.3	8.9	3.2	3.5	3.8	3.2	1.3	3.1	3.9	3.3	2,814.7	3.7	1,447.9	3.3	1,166.8	4.2
Subsistence gardening	12.2	12.6	10.9	14.0	9.3	12.5	12.7	14.2	16.2	20.6	9.9	9.3	14.6	14.1	17.4	9,406.3	12.2	5,896.1	13.1	3,710.2	13.4
Other subsistence food production	0.5	0.9	0.2	1.1	3.6	1.2	0.3	1.3	4.3	0.8	2.3	0.3	3.9	2.9	4.3	1,788.3	2.3	1,305.9	3.0	482.4	1.7
Other subsistence activities	1.0	0.3	0.9	0.4	2.0	2.9	11.4	0.3	1.3	4.7	1.1	0.1	1.8	1.9	2.7	1,350.6	1.9	599.9	1.4	752.7	2.8
Cash cropping	2.1	1.3	3.7	0.2	1.8	-	0.1	1.4	4.4	0.3	0.4	0.3	2.9	0.7	2.3	1,119.3	1.6	989.7	2.3	129.6	0.5
Paid work	-	-	-	-	2.3	-	-	-	-	-	2.6	29.8	-	-	2.1	1,138.8	1.6	440.7	1.0	688.1	2.5
Household	3.8	5.3	4.9	2.9	5.3	0.3	-	9.3	7.4	4.3	3.2	0.6	7.8	4.7	6.7	3,798.2	5.3	2,660.6	6.1	1,148.6	4.2
Social obligations	3.0	2.4	4.9	3.5	3.0	1.9	3.3	4.9	3.4	3.9	3.7	3.0	3.7	3.1	3.2	2,423.2	3.4	1,423.9	3.3	999.3	3.6
Sick	0.9	0.8	1.1	-	1.0	0.7	0.1	0.8	0.9	-	0.4	3.6	1.2	0.3	1.3	653.1	0.9	466.2	1.0	179.9	0.6
External agencies	4.8	3.4	0.7	2.7	4.2	3.3	4.6	7.9	6.4	1.7	2.8	0.7	7.3	4.3	6.3	4,134.7	5.8	3,041.2	7.0	1,043.5	3.8
Other	1.0	0.1	2.5	0.1	0.7	-	0.1	0.8	0.3	-	2.0	-	1.0	0.7	0.9	681.7	0.9	388.6	0.9	213.3	0.8
Total	39.7	33.3	46.7	36.2	37.9	29.4	41.8	44.4	48.4	48.1	31.8	48.3	49.1	37.6	30.4	28,976.1	40.6	18,440.3	42.3	10,535.6	38.1

* Cash cropping households.

592
461

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

592
461

All three households devoting less than ten hours per man-week to subsistence gardening had at least one member in paid work at some stage, suggesting that this latter activity might interfere with basic village tasks.[1] By contrast, increasing involvement in cash cropping does not appear to affect subsistence gardening activities. Household 9, with the heaviest commitment to cash cropping, expended 16.2 hours per man-week on subsistence gardening, well above the average.

The four households most concerned with other subsistence food production (all above 3.8 hours per man-week) are all cash cropping households headed by people under the age of 44 years. Three of them have direct access to shotguns and, with ready cash to buy cartridges, are frequent hunters. Likewise such younger men take the initiative for making sago when food is scarce.

Householder 7 spent 27 per cent of his activity time in other subsistence activities, uniquely in house construction. Having recently arrived in Sivepe he not only had to build a house for his wife and himself but, wishing to ingratiate himself with his affinal kin, spent a substantial amount of time assisting others in their construction work.

[m] While virtually all households are involved in cash cropping the ones directly exploiting rubber and coffee are, as is to be expected, more heavily committed. Furthermore, the cash cropping households spend more time interacting with the external agencies and their involvement in the external economy is, in effect, broadly based.

With the exception of the old widower (6), the amount of time households devote to fulfilling social obligations varies little from the mean of 3.4 hours per man-week - all appear to be similarly involved in the network of social interaction.

There are, however, very substantial variations in the time spent on household tasks, the range being nil to 9.5 hours per man-week. These variations are a direct expression of differing age and sex compositions and the varying degrees of interdependence between households. So householders 6 and 7 are almost entirely dependent on others for the daily preparation of their food, while the greater time devoted by the cash cropping households (6.1 compared with 4.2 hours per man-week) is connected with the fact that the heads of such households are younger and have many dependent children.

In conclusion, where substantial deviations occur from the 'normal' activity patterns they are generally explicable in terms

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[1] However, paid work does not appear to conflict greatly with other subsistence food production, because of the more irregular nature of the activities.

of individual circumstances rather than degrees of specialisation. While cash cropping households are clearly more active than the others, the substantially greater time they devote to the external sector accounts for the differential and they are no less active within the subsistence sector than their non-cash cropping counterparts. This is clearly demonstrated if household 12 is excluded from the calculations.

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Table 6:6

Sivepe: contrasting activity patterns of cash cropping and non-cash cropping households*
(hours per man-week)

	Subsistence sector		External sector		
	'productive'	'non-productive'	'productive'	'non-productive'	Total
Mean	26.7	3.4	2.5	7.5	40.1
Cash croppers	26.9	3.3	3.3	8.8	42.3
Non-cash croppers	26.7	3.3	1.2	4.9	36.3

* Household 12 excluded.

462 512 461

The division of labour

(i) By sex. Although there is little variation in length of activity week between the sexes, the men distribute their time more evenly through a broader range than the women who tend to confine their attention to a few specific tasks (see Fig.6:7). Sixty-one per cent of the women's time is devoted to subsistence gardening and household tasks compared with only 29 per cent for the men; however, the latter give substantially more attention to clearing, other subsistence food production and other subsistence activities than the women (11.5, 10.9 and 8.6 per cent respectively compared with 6.7, 1.6 and 1.1 per cent) while retaining subsistence gardening as quantitatively the most important of their grouped activities. Consequently the broad allocation of time between subsistence and external, productive and non-productive activities does not differ substantially for the two sexes; the men spend 69.8 per cent of their time on productive activities and 70.3 per cent on subsistence and the women 76.3 per cent and 77.0 per cent respectively. Rather it is a matter of the women concerning themselves essentially with the daily routine of harvesting and preparing the staple foods for consumption while the men turn to the more irregular, and frequently more arduous tasks such as house construction, hunting and sago-making. In part, no doubt, this pattern reflects the formal authority structure in the household in that the men delegate responsibility for meeting routine needs to the women while they

[TEXT CONTINUED ON PAGE 101]

461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait is clearly reflected in their work patterns. The household, com-
[592] prising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]
Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site,
[476] and as such they are normally seen to comprise less than two adults. The main exceptions are activities where collaboration is specifically

[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 116]

The organisation of work by households

512
592
[461]

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

[470]

There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

[437]

The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

[TEXT CONTINUED ON PAGE 143]

Table 7:5

Iaonda: activity patterns of households over the whole survey period
(hours per man-week)

Household no.	16*	17*	18	19	20	21*	22	23*	24	All households Total		Cash cropping households Total		Non-cash cropping households Total	
											Mean		Mean		Mean
No. of adults	4	3	2	1	3	2	2	2	2	21		11		10	
No. of man-weeks recorded	71.4	53.9	26.1	26.0	51.6	45.4	19.1	49.7	38.1	381.4		220.4		161.0	
										(hrs)		(hrs)		(hrs)	
Clearing	2.2	2.5	2.0	4.8	2.7	2.3	1.9	3.3	4.9	1,107.9	2.9	566.2	2.6	541.7	3.4
Subsistence gardening	11.7	10.0	16.3	13.5	11.3	8.8	12.2	9.8	16.2	4,479.5	11.7	2,263.0	10.3	2,216.5	13.8
Other subsistence food production	7.9	8.9	4.7	4.6	12.0	8.1	5.4	7.1	4.5	2,869.5	7.5	1,723.8	7.8	1,145.7	7.1
Other subsistence activities	2.7	2.8	3.2	5.9	3.7	5.4	0.8	3.3	2.6	1,292.7	3.4	751.5	3.4	541.2	3.4
Cash cropping	2.3	0.4	0.8	0.2	0.2	2.1	-	1.0	-	365.5	1.0	329.3	1.5	36.2	0.2
Paid work and entrepreneur	1.5	2.6	-	-	2.5	1.4	13.2	5.7	1.8	1,042.6	2.7	591.7	2.7	450.9	2.8
Household	3.8	4.1	4.0	0.9	4.0	4.7	1.0	4.9	4.2	1,459.5	3.8	944.4	4.3	515.1	3.2
Social obligations	4.6	4.2	6.1	2.2	3.6	5.5	4.5	2.7	4.2	1,595.7	4.2	944.6	4.3	651.1	4.0
Sick	2.7	2.4	1.4	0.1	1.5	2.0	-	1.3	0.1	598.5	1.6	475.4	2.2	123.1	0.8
External agencies	3.6	2.9	2.8	1.0	2.7	4.7	1.4	4.8	2.8	1,241.6	3.2	864.6	3.9	377.0	2.3
Other	1.3	1.3	0.8	0.4	2.4	1.4	3.9	1.7	0.7	567.3	1.5	312.5	1.4	254.8	1.6
Total	44.3	41.3	42.1	33.6	46.4	46.4	44.4	45.8	42.1	16,620.3	43.5	9,767.0	44.4	6,853.3	42.6
Mean length of active day**	6.6	6.1	6.7	5.1	6.8	6.7	6.7	6.9	6.6						

* Cash cropping households.
** Excluding days sick.

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

Table 7:6

Inonda: activity patterns of households (adjusted)[1]

Household	Number of man-weeks	Total hours		Hours per man-week	
		Household tasks	Total	Household tasks	Total
16*	71.4	669.1	3,559.4	9.4	49.8
17*	53.9	571.2	2,574.0	10.6	47.8
18	26.1	388.7	1,384.4	14.9	53.0
19	26.0	22.5	873.7	0.9	33.6
20	51.6	521.0	2,741.1	10.1	53.1
21*	45.4	518.9	2,414.5	11.4	53.2
22	19.1	148.1	976.2	7.8	51.1
23*	49.7	583.3	2,617.2	11.7	52.7
24	38.1	436.7	1,880.1	11.5	49.3
Total	381.4	3,859.5	19,020.6	10.1	49.9
Cash croppers	220.4	2,342.5	11,165.1	10.6	50.7
Non-cash croppers	161.0	1,517.0	7,855.5	9.4	48.8

[1] Table 7:6 shows the relevant parts of Tables 7:3 and 7:5 recalculated taking the adjusted average figure for household tasks into account. For an explanation see p.136.
* Cash cropping households.

in gardening. Although the leading man is one of the most successful hunters, his household spends a little under the average amount of time on these other food-producing activities, and only a small amount of time is devoted to sago-making in comparison with several other households - notably 16, 17 and 21.

The remaining subsistence activities are the preparation of tools and equipment, and construction. As household 22 did not build a house on the new village site it spent little time on this category of activity. In contrast, the men in households 19 and 21 helped the widow build her house, as well as joining the other men in building the copra-drier, and these households have the greatest weekly input of labour into these activities. There is little difference between the levels of the other households.

Only three households spent one or more hours a week on cash cropping. Two of these have mature coffee trees and the third is establishing a new coffee garden. In addition to looking after their own coffee, members of household 16 assisted kinsmen in Ijika and on the settlement block in establishing and maintaining coffee and cocoa trees. The head of this household is the only member of the OCGS in Inonda. While most of the time spent on cash crops by households 16 and 21 was on coffee, much was on the copra project,

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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and this latter accounted for most of the time household 23 devoted to cash cropping. It is interesting that household 17, which owns 107 mature coffee trees, spent less time on them during the survey than household 18, a non-cash cropping household, spent in assisting others with their coffee. The head of household 17 expressed dissatisfaction with his returns from coffee and did not fully harvest the yield of his trees, although the price was double that of the previous year. The small amounts of labour spent in cash cropping by other households result from their assisting owners of coffee trees and collecting and opening coconuts in the communal copra project. Although the inputs of labour by non-cash cropping households are small, even those of households 16 and 21 amount to only 5 per cent of their total activity time. Apart from the widow and widower, these same household spend the lowest proportion (both 3 per cent) of their time in paid work.

All the households spent some time in cash-producing activities, but the widow and widower only assisted others in cash cropping and the heads of households 22 and 24[1] worked only in paid employment. For the Jego'undi man in household 22, paid work was the single most time-consuming activity, exceeding subsistence gardening in spite of his household spending more time in gardening than the average, and it is worth noting that this household entered least into subsistence transactions but disposed of more than average amounts of storebought foods.[2] It seems likely that in 1964 the absences of the household head in paid work and of the whole household on a two-week fishing expedition required unusually intensive work in gardening at other times to ensure subsistence. This household receives no labour assistance from others, whereas the entrepreneur's household (23), which devotes the second highest amount of time weekly to cash-producing activities and the second lowest amount to gardening, receives considerable assistance through labour services[3] and this household is prominent in transactions of subsistence as well as of storebought produce. These two households have the lowest cultivated area per household member in the village. It appears that those who engaged in full-time wage employment for more than two or three consecutive weeks find it difficult to maintain their gardens and therefore meet their traditional obligations in the

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[1] The household head has no rights to land for cash cropping in Inonda. See p.60.

[2] See Tables 11:8 and 11:9.

[3] The difference may be due to the fact that the head of household 23 is the head of the dominant lineage, the most educated, experienced and prestigious man in the village. The head of household 22, on the other hand, was the sole adult member of his lineage and a marginal member of the village. He left Inonda during the survey.

592 exchange network and they must use cash and storebought goods to
512 compensate for this.

[461] Few households differ greatly from the average in the amount of time they devote to household tasks. The widower, like most men, seldom cooked, whereas in household 18 the widow's son was rarely
[462] present and the mean weekly time spent in household tasks is strongly influenced by the time spent in cooking by the widow. Household 16 appears to spend less than the average time since it contains two men as well as the wife's mother, who does not cook as often as her daughter. The small amount of time spent by household 22 is probably due to the fact that the members had comparatively few clothes and so little time was spent in washing.

164 As mentioned, much of the time shown as spent in sickness involves visits to the aid post and particularly to the fortnightly infant welfare clinic. Households containing small children, then, appear to spend most time in sickness. When days, rather than hours of sickness (including periods spent outside the village at hospital or the aid post), are taken into account, it is the households containing people over 45 that are most often sick. Household 24 spends on average 1.3 days per man-week in sickness. In addition to regular fevers, the household head suffered an anal prolapse in August and he and his wife spent the last 19 days of period II at Saiho hospital. Households 18 and 19 have the next highest sickness rates. Household 16 also has a comparatively high rate, largely because of the presence of the wife's aged mother but also because the whole household was sick with influenza during most of the last two weeks of the survey. All of the other households spent less than half a day per week in sickness.

592 There is not much difference between households in the amount of
512 time spent on social obligations. The widow and the wife of the head of household 21 spend rather more time than others in visiting, while the entrepreneur's household, (23), and the widower do little, and the latter was also unable to attend two feasts on account of sickness.

592 In addition to differences in activity patterns between the in-
512 dividual households, certain distinctions appear between cash cropping and non-cash cropping households as groups. As is to be
461 expected, cash cropping households spend more time in planting and tending commercial trees. Non-cash cropping households spend only 0.2 hours per man-week in cash cropping, assisting others and working on the copra project, but even cash croppers spend an average of only 1.5 hours per week on their trees. The two categories devote a similar amount of time to paid work and entrepreneurial activities - primarily because the Jego'undi man's period of work on the settlement block was intensive enough to outweigh the effect of the older non-cash croppers, who did no paid work. On average, people in non-cash cropping households spend 3.5 hours more per

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is without taking the separately-recorded days of sickness into account. [757] In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as irongo as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

Inonda: days spent in sickness per man-month

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	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 The division of labour: the influence of sex

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

[TEXT CONTINUED ON PAGE 148]

434 For example, during period II the sample's income ranged from $1 in one week to almost $50 in another. Since the turnover of cash is rapid and little capital formation takes place, the pattern of expenditure closely parallels income, and exceeds it in the latter part of period III when the substantial demand for storebought foods for ceremonial activities is met primarily with savings accumulated earlier in the year. These major fluctuations in the acquisition of cash demonstrate the danger of villagers placing any great dependence on it at this stage of commercialisation of the economy.

The exchange patterns of households

437 Both the volume and variety of transactions vary considerably
● 512 from one household to another, and can be related to specific differences in the resource base of each (see Table 10:9). Thus, there is a distinct movement of labour services within the cash sector from non-cash cropping to cash cropping households, of cash crops from the latter, of the produce of hunting from householders with direct access to shotguns (households 3 and 15), of cash to cash cropping households, and of storebought goods to those households with the highest incomes.

Cash croppers exhibit a much higher volume of transactions than non-cash croppers in all categories apart from subsistence labour services. As suggested by the figures for subsistence produce, this applies equally to transactions in the gift and in the monetary exchange system. As in activity patterns so with exchange: cash
[555] croppers evidence a high level of participation in the traditional village economy. That is, cash croppers are industrious in work and generous in distribution, two qualities which generate respect and status both traditionally and in contemporary Orokaiva society.

The lower rate of disposal of subsistence labour services by cash croppers may be indicative of the greater premium they place on time and a preference for exchanging goods more abundantly available to them but, apart from in the processing of cash crops, there is little evidence that they exploit the system by drawing on unutilised labour from other households. However, it is worth noting that household 15, whose head is the most active male in the sample, does record a high incidence of such exchanges of labour, in particular of acquisitions.

Not only do particular households play an important part in regulating the flow of specific categories of goods, especially the scarce ones of cash, pigs and game, but there are broad variations between households in their general involvement in the exchange system. The bulk of domestic pig is handled by four households (1, 2, 13 and 14), with only very small amounts being distributed or redistributed to others. Some of the households headed by older people (6, 10 and 11) or which are only recently

established in the village (4 and 7) scarcely participate at all unless they make specific efforts to obligate others to them or to settle existing obligations, as with 6 having a sago palm felled and 7 assisting his affines in subsistence tasks on numerous occasions.

The network of inter-household exchanges of these scarce goods and of services, even at the level of co-residents and close kin, suggests the system to be primarily a negotiated and exploitative one with the ideal of communal interests and group security relegated to a subsidiary role. This dual aspect of exchange is exemplified in a statement of intentions made by the head of household 18 where, in distributing some sago, he proposed to make large gifts to three people 'because they are always quick to help me when I am in need of food' but smaller gifts would be made to others since 'it would be an insult not to share with other people when they see I have plenty of sago'. In fact the security with which older people are provided is of a low order if the volume of exchanges with others is considered.

Income and expenditure of cash over 46.5 weeks

The level of the Sivepe people's commitment to the external sector of the economy is demonstrated by their income and expenditure patterns. All households handled some money during the period from February 1964 to January 1965 and even household 4 which registered a gross income of only 50c during the period it was present, left the village with the specific object of seeking wage employment on a Sangara plantation (see Table 10:10). Cash croppers handle substantially more money than non-cash croppers but this fact is not simply a function of the agricultural activities of the former. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping.

As the single most important source of income, remittances rank with proceeds from the sale of cash crops and, for cash croppers, these two provide their main sources of cash. By contrast non-cash croppers derive over half of their income primarily from Sangara settlers and secondarily from other villagers[1] (see Table 10:11).

The value of connections with wage earners and Sangara settlers is enhanced by the gifts of goods frequently associated with the

[1] Some money is also obtained directly from the sale of cash crops. Two cases were recorded of quantities of coffee being given to non-cash croppers in acknowledgement of assistance rendered; while in a third a young member of a non-cash cropping household emulated his brother in exploiting the communal rubber planting.

A, [See Category 511, p. 205--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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The exchange patterns of households

(a) The circulation of goods and services

Tables 11:8 and 11:9 present the patterns of exchange of the main groups of items for each household. The different sizes of households and the different numbers of days for which information was collected have been taken into account in calculating transacting rates.

It is clear from these tables that there is little difference between most households in the rate of acquisitions and disposals of garden and forest produce and the differences are even less when acquisitions and disposals are added and viewed as total turnover. Household 18, which contains the widow Embogi, is outstanding. This reflects partly the lack of a permanent male resident, whose lower average rate of transaction would reduce the general household level (as in the other households). More significantly, it reflects the fact that Embogi spends more time in subsistence gardening than any other villager[1] and also receives much assistance in gardening. The product of gardens made by others on her behalf is in excess of her own household's needs and so is distributed. A further factor is that, as a widow with only permissive rights to live in the village, generosity in distribution helps to ensure continued acceptance of her position. This applies to household 24 as well, which also gives more than the average amount. Household 24 receives less than average amounts of garden foods but has the highest rate of acquisitions of products of hunting and fishing. The household head is father-in-law of the two most successful hunters in Inonda and often receives gifts of whole carcasses from them. The widower in household 19 does not cook meals and disposes of very little garden produce.[2] For the same reason, he receives only cooked meat in comparatively small quantities rather than whole carcasses. There are wider differences in the patterns of exchange of hunting and fishing products, reflecting in large part the amount of time devoted to hunting by the household heads. The more skilful hunters spend more time in this way than other people. It is noteworthy that household 20 disposes of most game and little garden produce, indicating a degree of specialisation that is recognised by the other villagers, several of whom give this man cartridges with which to hunt on their behalf.

The main influence on the patterns of labour services is sago-making: the three men who harvested trees in 1964 (households 16,

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[1] See pp.167-8.

[2] It was discovered too late for recording that his son's wife often harvests in the widower's garden.

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Table 11:8

Inonda: transactions of main categories of subsistence produce and services, by household
(quantity per man-week)

Household	Garden and forest produce (lbs)		Hunting and fishing produce (lbs)		Labour services (hours)	
	A	D	A	D	A	D
16*	31.7	28.5	4.4	1.4	2.5	1.2
17*	29.1	27.4	3.9	6.6	1.8	0.6
18	50.3	59.9	4.3	1.4	1.6	1.8
19	21.0	7.8	0.3	4.8	0.3	2.3
20	29.5	22.1	3.7	20.1	0.3	1.6
21*	35.2	31.6	6.5	4.9	2.6	1.0
22	11.2	21.6	4.1	-	-	-
23*	32.5	26.5	6.0	9.7	2.6	1.3
24	17.9	36.6	11.7	1.9	0.6	0.2
Mean for 9 households	29.7	29.0	5.2	6.3	1.6	1.1
Mean for cash cropping households	32.0	28.5	5.1	5.3	2.4	1.0
Mean for non-cash cropping households	26.6	29.7	5.3	7.8	0.5	1.2

* Cash cropping households.

17 and 21) all received more assistance in total than the average, while households which assisted with sago-making, such as households 19 and 20, disposed of more in total. However, household 23 received assistance in house construction and subsistence gardening but not in sago-making. In addition to receiving help with sago-making, household 21 received assistance in establishing a coffee garden. Most of this assistance was given by his mother, the widow in household 18. The widower gave most assistance per week (as well as a considerable quantity of hunting produce), in return for the surplus of vegetable produce he received.

Acquisition and disposal rates for storebought goods and cash also differ little from one household to another. Household 22, although present only during period I, records a comparatively high rate of transactions for food and stimulants. While resident in the village the head spent several weeks working for a settler and two weeks away on a fishing expedition. It is probable that his gardens suffered accordingly, making considerable purchases of rice necessary. The man belongs to the traditionally subordinate clan branch, Jego'undi, and, being neither a cash cropper nor a particularly influential person, his circumstances may have provided an incentive

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Table 11:9

Inonda: transactions of cash and main categories of storebought goods, by household
(mean amount transacted per man-month in $)

Household	Cash		Food and stimulants		Household and working equipment	Personal goods
	A	D	A	D	A	A
16*	2.12	2.95	1.34	0.24	0.16	0.65
17*	1.19	1.26	1.54	0.27	0.14	0.97
18	0.07	0.39	1.35	0.30	0.23	0.44
19	0.23	0.38	0.90	0.02	0.22	0.18
20	3.12	3.76	2.94	0.30	0.37	0.70
21*	3.20	2.89	3.08	0.43	0.40	0.20
22	2.12	2.93	3.14	0.62	0.24	1.04
23*	11.45	12.33	4.22	0.70	1.71	3.99
24	3.97	1.44	2.20	0.15	0.15	0.01
Mean for 9 households	3.39	3.53	2.32	0.34	0.43	0.99
Mean for cash cropping households	4.23	4.64	2.41	0.39	0.56	1.38
Mean for non-cash cropping households	2.26	2.01	2.20	0.26	0.25	0.45

* Cash cropping households.

to demonstrate wealth not only by buying rice but also by distributing it frequently. This household is second only to the entrepreneur's (household 23) in its level of transactions of storebought goods. In contrast, it acquired relatively little garden produce and a below-average amount of game and fish per week and it took no part in the exchange of services, reflecting the weakness of its links with the Andirihaha residents. Household 23 has the highest rate of acquisition of personal goods. Apart from purchases (see Table 11:11) this household received the clothing parcel from Australia. Household 17 also has quite a high rate of acquisition of personal goods. During the survey, the husband and wife had a quarrel in which most of their clothing was destroyed and had to be replaced - much of it by gifts from the wife's sister, who is married to a plantation labourer.

Over a given period cash croppers receive more of most classes of items than non-cash croppers, with the exception of fish and game. Non-cash croppers tend to dispose of more subsistence goods and services, but cash croppers dispose of larger amounts of monetary items, admittedly largely due to the high level attained by the entrepreneur in household 23. Apart from this household, there is nothing to distinguish individual households which rely on commercial crops for their income from households relying on other sources.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

In the same way, there appears to be little relationship between the levels of transactions in most categories and either the rank of household heads or the total area cultivated by households. Where possibly significant differences in the rates of acquisitions and disposals appear, they are mostly explainable in terms of the various factors mentioned above. However, as regards rank, it is striking that the leading man's household is first in its rate of acquisition of most items, though only second for taro and pigmeat. It leads in acquisitions of both cash and subsistence sector services and is second in its rate of disposals of taro, banana, pigmeat and subsistence services.

It appears, then, that high status confers both material responsibilities and benefits. The main advantage accruing to the entrepreneur seems to be that he needs to spend less time than others in gardening and the time thus saved is directed into cash-producing activities.[1] This consideration applies only to the leading man and transactions according to the other rankings do not fall into a noticeable order.

(b) The expenditure of cash

Table 11:10 shows the pattern of purchases by each household during each recording period and over the whole survey. While there are considerable differences between households in the total value of purchases and a wide range in the proportion of cash income devoted to commodity purchases, there is less difference in the actual composition of the expenditure patterns (see Table 11:11).

For all but one household (which has a total expenditure below $3), food and stimulants account for over half of the purchases. Rice forms between 7 and 16 per cent of the total of all except the Jego'undi household, the proportion varying little over the survey. Flour on the other hand, was bought only during period II, when it formed almost one-quarter of all purchases and the proportions of tinned meat and fish in particular were reduced. The proportion formed by clothing and personal goods is also reduced at this time. All households, except the widow's, purchase flour, the amount bearing no relation to income.

None of the households containing the older people (18, 19 and 24) bought clothing, while only one (24) bought any other personal goods or tools and equipment. Apart from these, the other non-cash cropping households (20 and 22) also spend small proportions on these categories and on household goods compared with the proportions of expenditure allocated by the cash cropping households (16, 17, 21 and 23). Clothing accounts for one-quarter of the expenditure of three of the latter households.

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[1] See pp.161-2.

Table 11:10

Iconda: household expenditure patterns during each recording period
($)

Household	Subsistence	Rice	Tinned meat and fish	Bread	Flour	Other foods and stimulants	Clothing	Other personal	Household goods	Tools and equipment	Total
Period I											
16	-	0.80	0.40	-	-	1.14	1.20	0.14	0.10	1.24	5.02
17	-	0.40	-	-	-	0.30	-	-	-	-	0.70
18	-	0.20	0.14	-	-	0.84	-	-	1.40	-	2.18
19	-	0.20	-	-	-	-	-	-	-	-	0.20
20	1.50	1.60	3.00	1.24	-	3.08	1.20	0.50	0.20	0.40	12.42
21	0.10	1.70	2.04	1.64	-	3.64	-	0.50	0.54	0.60	10.76
22	0.90	2.80	0.74	0.74	-	2.08	1.00	-	0.24	0.30	8.80
23	1.20	2.20	3.32	1.82	-	5.88	18.18	4.96	1.06	1.14	39.76
24	2.20	0.50	0.42	-	-	3.94	-	-	0.14	0.50	7.70
Sub-total	5.90	10.40	10.06	5.44	-	20.30	21.58	6.10	3.68	4.18	87.54
Per cent	7	12	11	6	-	23	25	7	4	5	100
Period II											
16	-	0.80	0.30	0.20	1.40	1.24	-	1.60	0.12	0.50	6.16
17	-	0.60	-	0.20	2.00	0.50	-	-	0.20	0.20	3.70
18	-	0.20	-	-	-	0.10	-	-	-	-	0.30
19	-	-	0.40	-	0.70	-	-	-	-	-	1.10
20	-	0.70	0.84	0.60	4.60	2.54	-	0.20	0.04	0.30	9.62
21	-	0.80	0.60	0.40	1.40	1.30	-	-	0.10	0.20	5.00
23	0.90	1.80	1.74	1.40	1.80	5.32	1.30	0.40	3.60	4.66	25.12
24	0.10	0.60	0.14	-	0.70	1.14	-	-	-	-	2.68
Sub-total	1.00	5.50	3.82	2.80	12.60	12.34	1.30	2.20	4.06	5.86	53.68
Per cent	2	10	7	5	23	23	3	4	11	11	100
Period III											
16	0.10	2.40	3.24	0.60	-	5.16	7.34	0.90	1.54	-	21.28
17	-	0.40	0.30	0.70	-	0.40	2.10	0.20	0.10	-	4.20
18	-	-	-	-	-	0.20	-	-	-	-	0.20
19	-	-	-	0.20	-	-	-	-	-	-	0.20
20	0.46	0.60	0.70	1.40	-	2.30	1.20	0.10	0.26	1.24	8.26
21	-	-	1.20	0.20	-	0.96	2.04	-	1.74	0.30	6.44
23	0.10	2.10	3.52	1.70	-	6.56	1.68	1.66	0.02	5.12	22.46
24	0.20	-	-	-	-	1.08	-	-	1.00	-	2.28
Sub-total	0.86	5.50	8.96	4.80	-	16.66	14.36	2.86	4.66	6.66	65.32
Per cent	1	8	14	7	-	26	22	4	7	10	100

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Table 11:11

Inonda: household expenditure on commodities over the whole survey period

Household		Subsist-ence produce	Rice	Tinned meat and fish	Bread	Flour	Other food-stuffs and stimulants	Clothing	Other personal goods	Household goods	Tools and equipment	Total
16	$	0.10	4.00	3.94	0.80	1.40	7.54	8.54	2.64	1.76	1.74	32.46
	%	0.3	12.3	12.1	2.5	4.3	23.2	26.3	8.1	5.4	5.4	99.9
17	$	-	1.40	0.30	0.90	2.00	1.20	2.10	0.20	0.30	0.20	8.60
	%	-	16.3	3.5	10.4	23.3	14.0	24.4	2.3	3.5	2.3	100.0
18	$	-	0.40	0.14	-	-	0.74	-	-	1.40	-	2.68
	%	-	14.9	5.2	-	-	-	-	-	-	-	-
19	$	-	0.20	0.40	0.20	0.70	-	-	-	-	-	1.50
	%	-	13.3	26.7	13.3	46.7	-	-	-	-	-	100.0
20	$	1.96	2.90	4.34	3.24	4.60	7.62	2.40	0.80	0.30	1.94	30.30
	%	6.5	9.6	14.3	10.7	15.2	25.1	7.9	2.6	1.7	6.4	100.0
21	$	0.10	2.30	3.84	2.24	1.40	6.10	2.04	0.50	2.38	1.10	22.20
	%	-	12.7	17.3	10.1	6.3	27.5	9.2	2.3	10.7	4.9	100.0
22	$	0.90	2.80	0.74	0.74	-	2.08	1.00	-	0.24	0.30	8.80
	%	10.2	31.8	8.4	8.4	-	23.6	11.4	-	2.7	3.4	99.9
23	$	2.20	6.10	8.58	4.92	1.80	17.76	21.36	7.02	6.68	10.92	87.34
	%	2.5	7.0	9.8	5.6	2.1	20.3	24.5	8.0	7.6	12.5	99.9
24	$	2.50	1.10	0.56	-	0.70	6.16	-	1.00	0.14	0.50	12.66
	%	19.7	8.7	4.4	-	5.5	48.7	-	7.9	1.1	3.9	99.9
Total	$	7.76	21.40	22.84	13.04	12.60	49.20	37.44	11.16	14.40	16.70	206.54
	%	4	10	11	6	6	24	18	5	7	8	100

8: Waddell & Krinks E-4,5 (1964-1965) 1966 0323 Orokaiva 0323

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Only three households bought subsistence produce in more than one recording period. The entrepreneur's purchase of Xanthosoma has been mentioned above. Areca is bought at any time of the year. Other subsistence purchases consist of smoked meat and fish from hawkers and almost always take place immediately prior to feasts if hunting has not yielded enough meat. Purchases of the major storebought foods similarly reach peaks when feasts or parties occur. Also, some purchases of items such as rice, tinned fish, bread, sugar and sweet biscuits are made every week by one or another household. Households 20, 21 and 23 are the most regular purchasers.

Household 23 accounts for 42 per cent of all purchases and therefore strongly influences the average figures for the village as a whole. Rice in particular and storebought foodstuffs in general form a lower proportion of its expenditure than of any other household, although the actual amount spent on these items is much greater. This household also disposes of storebought foods at a higher rate than any other. Household 22 disposes of storebought foods to others at a rate little below household 23 and 72 per cent of its expenditure on commodities is on storebought foods, with a further 10 per cent on subsistence foods and areca.

Figures 11:3 and 11:4 illustrate some relationships between total cash income and expenditure over the eleven months from February 1964 to January 1965. Although the sample is small and the relationships are not straightforward, it is clear that there is a tendency for expenditure on food and clothing to form a declining proportion as expenditure on all commodities rises. Items which increase in significance are household and personal goods and working equipment. As total expenditure increases, the proportion spent on goods and services declines. However, there is no apparent tendency for total expenditure (including that on services, gifts, loans, gambling, tax payments as well as purchases) to decline in proportion as income rises. As Table 11:13 shows, only one household has a cash balance over an eleven months' period of more than a few dollars. The directions of outlays over and above expenditure on commodities are shown in Table 11:14. Some of these avenues (such as payments for labour and gun and trading licences) are followed only by the entrepreneur. Tax payments are made only by the younger people, as the old and infirm are exempt, and tax payment consumed more of the income of the three households that paid it than any other item except purchasing. The head of household 22 did not pay tax and was later jailed. The other main expenditures include gambling, deposits in savings accounts and gifts and loans. Of these, gifts account for the greater proportion of expenditure.

It appears, then, that of the calls on income, tax payment has first priority for most people, although food purchases come first for household 22. Food and then clothing purchases are next in

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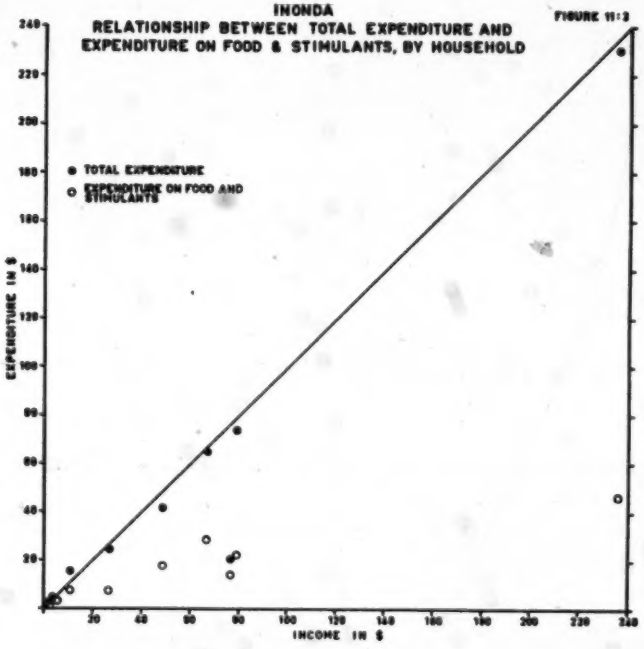
INONDA
RELATIONSHIP BETWEEN TOTAL EXPENDITURE AND EXPENDITURE ON FOOD & STIMULANTS, BY HOUSEHOLD

FIGURE 11:3



priority. Inonda people with incomes below $20 over the 26-week survey spent virtually all their income in purchasing (apart from tax payment). As income rises above this level, expenditure on commodities increases but people also are able to invest their money or to circulate it in the form of gifts, with the latter having greater priority. Monetary investment (whether in purchases of shares or deposits in savings accounts) usually involves larger sums than gifts which may be as small as 10c, but gifts are much more frequent and are a more characteristic element in the exchange patterns. Naturally, the higher cash income a household receives, the more it is able to dispose of in gifts as well as meeting its own material needs. As generosity in distribution is a major source

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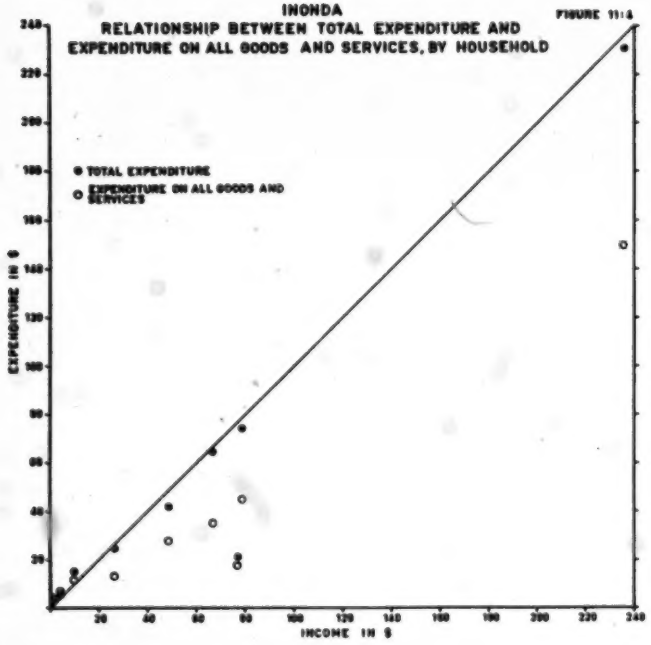
INONDA
RELATIONSHIP BETWEEN TOTAL EXPENDITURE AND EXPENDITURE ON ALL GOODS AND SERVICES, BY HOUSEHOLD

FIGURE 11:4



of prestige, income should show a positive correlation with rankings and Table 11:12 illustrates this.[1]

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Again, the relationship is not clear-cut - household 19, the widower, has a very low income but high status in certain respects, reflecting his age, his knowledge of land and personal relationships

[1] All the household heads were ranked in terms of both the people's own evaluation of their status relative to each other, and the researchers' observations on individual wealth, participation in village affairs, influence in decision-making, etc.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

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Table 11:12

Inonda: cash income during the whole survey period and rank of households

Household	Rank	Income in $
23	1	147.72
20	2	41.44
24	3	41.30
21	3	39.40
16	4	38.50
17	4	16.40
22	4	10.60
19	2	1.50
18	4	0.50

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and his generosity with his main resource, labour. Household 16 is grouped in the lowest rank although its income level is in the same order as people in the second and third ranks. A further complication is that household 24, though accorded a relatively high rank, has a comparatively low rate of expenditure, particularly in the form of gifts of either cash or storebought foods. Allowing for these factors, however, it seems that the qualities that gain respect for an individual within the traditional village sphere of operation also tend to be those that encourage the acquisition of cash.

Income and expenditure of cash over 47 weeks

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The figures in Table 11:13 represent current income from all sources, including withdrawals from savings accounts and all expenditure, including deposits in savings accounts. Unlike the data for other items of exchange, details of income and expenditure of cash were collected not only for the three recording periods but also for the intervening weeks. Although this subsidiary data may be rather less accurate than the rest, it has been taken into consideration in some of the tables below and thus provides a record of cash transactions over 11 months, from February 1964 to January 1965.

Table 11:13 shows the total income and expenditure of cash per household over 11 months, including the coffee season, and reveals that there is a net inflow of cash amounting to $72.96 for the village as a whole or $8.12 per household. In fact, however, both income and expenditure vary widely between households. Also, the income of households 16, 21 and 23 includes withdrawals from savings accounts and the expenditure of household 23 includes a deposit in his account. Household 23 has the highest income with $235.42, which is 43 per cent of the total for all 9 households, but its expenditure

8: Maddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Appendix 1

Sivepa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivepa							
Village	114	3	2	3	20*	98	-14.0%
Sample	63	2	1	3	17	50	-20.6%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivepa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10†
Sample	14	4.5	1-7	2.4	0.8-3.8	4†

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivepa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Period††								
	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
Inonda	1	1	nil	2	3	nil	nil	1	1†††
Sivepa	3	1	1	3	2	1	1	nil	2§

* Eleven (55 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

† However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

†† An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

††† This man served 27 years as a mission teacher and has a total 'work value' of 62.

§ Both served as village officials (either village constable or local government councillor) for many years.

163 164 166 942.9 494

592 The household: This usually functions as a single unit of food production and consumption. In the case of a polygamous household, however, each wife plants and cooks separately, and in extended families which accommodate one or more unmarried adults these usually have individual food gardens though their produce is pooled and cooked for the whole household.

592 425 Land rights exercised by the household as a unit are restricted to usufructuary rights for the production of short-term food crops. This situation is analysed in more detail in the following section.

423 613 614 The individual: The land rights of individuals are predominantly a function of their status in relation to particular sub-clans and lineages. From data collected in Inonda we can recognize four distinct statuses:

(1) Primary membership: This is the status of persons who were born or adopted into the descent group and who are domiciled within it. Of the eleven adult males in Inonda, nine were primary members of either the Andiriha or Jego'undi sub-clans. A marginal case not included above is that of the ex-leader of the Inonda village who recently shifted to take over a farm about two miles away on the Girua resettlement scheme. He visits the village frequently and is still treated for most purposes as a primary member.

(2) Contingent membership: This is the status of persons who have been primary members, but have subsequently left the village (either at marriage or otherwise) to live elsewhere. They do not normally lose all their rights by doing so, though the nature of their rights changes. A contingent member, it seems, can generally regain primary membership by returning to reside in the sub-clan (as frequently happens with widows, returning migrant workers etc.). We are aware of eight contingent members of the Inonda sub-clans. Four of them are women who are married to men in other villages. Of the four men, one is away at work in Port Moresby, one is living in his mother's village and will probably remain there, one lives on the land of his deceased sister's husband in another village and the fourth lives in the village of his mother's new

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
(427) year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a (654) resettlement block with a development loan of $1,500 that he (426) decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6) they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet comprising himself, his brothers and some of his married children. (592) The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

(361)

A. [Table 6 appears in Category 461, p.19--Analyst]

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

241 422 592 423 Later again, in line with an agricultural officer's recommendation, he encouraged each son to plant individually. He proposes that his gardens should be inherited by his sons jointly, with work and profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 24 464 [654] D has no younger brothers, but he did have a government loan (though it was not intended for hiring labour). With the loan and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with its clear-cut subordination, has no traditional precedent and is [591] incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 654 The entrepreneurs have all benefited from assistance given by government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

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212 C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

(592) Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.
(626)

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that
592 it may.

Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
[366] derives from the land and social security from the fulfilment of obligatory ties which bring reciprocal returns in times of sickness,

Table 19

Traders as at January 1966

	Group I	Group II	Group III
Economic variables			
Store turnover per month	-	under $50	over $50
Store outside village	75%	50%	100%
Average no. of economic trees	702	1,800	168
Traditional valuables	$31.51	$46.16	$7.50
Liquid assets	$37.32	$212.00*	$322.66*
Months of operation of store	19.5	17.75	7.25
Tools and equipment	$124.68	$177.75	$143.97
Loans received: land	50%	25%	-
store	25%	-	50%
Social variables			
Age	35.25	41.75	29
Index of education	26.7	3.75	46.7
Years of paid work	11.25	8.75	4
Non-traditional experience	16.75	10.25	11.75
Job: level 1 responsibility	-	25%	75%
level 2 responsibility	75%	50%	-
Community leadership	50%	75%	50%
More than one leadership position	-	50%	25%
No. of co-operating adult male kin	2.25	2.75	2.5
Size of present household	6.5	5.75	5.25
Eldest son	75%	25%	-
Residence village different from village of birth	50%	75%	75%

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* No information on one subject in group.

The most successful traders had the smallest households, but used the help of co-operating kinsmen more than the least successful (whose present households were the largest) and less than group II (whose households were also large). The moderately successful traders depended most on the help of kinsmen, but not nearly so extensively as cash-cropping entrepreneurs previously studied (see Crocombe 1967). [592] [602]

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual
[621] protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

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[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 423 182 Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land [361] close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers [484] each on his own block. In addition, each of the block residents [525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

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177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[657] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

[423] d) The location of houses on the blocks.
e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the
[166] time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accompanied in almost every instance by their wives
● 592 and children. This situation represents a
166 marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

361 Comparing Inonda and Sivepe, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepe shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 Within a village, two kinds of kinship group larger than the elementary family may be distinguished, namely the javo wahai (clan) 592 and the hae (lineage, or plant emblem group). We may also distinguish 616 two kinds of residential group, the occupants of a bende or side and of a bande or house. On the nature of the clan I shall be brief here, 614 reserving detailed documentation for my doctoral dissertation. It seems to me mainly a political unit, held together by--in some but not all cases--belief in common descent from a single patrilineal ancestor, by the common name (javo) by which they call themselves and which they call out when slaying an enemy or a pig or in other moments of great stress, by the recognition of obligations towards and claims upon others who bear the same clan name. Rimoldi (1966: 33) is right when he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used to denote collectively all persons sharing the same plant emblem. The clan name (javo wahai) is transmitted only patrilineally, but the transmission of the hae is more complex. A person regards his hae, which may be any plant or part of a plant, or another natural substance, as a part of his own identity. He may respect it in the manner of a totem but such avoidances seem always to have been to some extent a matter of personal choice. (Williams, 1930: 127-218) The hae is used in a number of social contexts as a mark of identity. Williams seemed to believe that a hae was the distinguishing mark of a clan, but later investigators (Crocombe and Hogbin, Rimoldi) take it to be the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

Informants told me of one rule regarding household composition
592 which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do n.t like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working for wages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)A

My own impression is that the normal household is composed of
592 a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by themselves, even if they have no young children living with them and
[589] do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of 162 the population by age, sex and marital status (see Table 16)[A] shows that 469 the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, 166 in Sivepe, than the number of women. The reason for this change is 167 that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be 464 occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is 583 unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepe, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his [484] affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few 593 children, but they receive regular gifts of money from their husband. ●592 Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden [469] and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepe women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

593 further such lucrative young females. Of the six, two were Sivepe
592 women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

464 Though Waddell showed that the loss of adult male workers
433 through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the
889 adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows
[463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

595 I saw no evidence of polygamy currently practised. Marriages
585 were always consecrated at the time the couple was baptised. Several
586 people had at one time been divorced, but this was prior to the time of baptism.

464 In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

114 The division of labour was the special subject of a study
464 A carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

[See Cat. 116--Analyst]

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant
[161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found.
[597] Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages
[423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

TABLE 15

HOUSEHOLD COMPOSITION; SIVEPE AND INONDA COMPARED

592
594
596

Note: The term "augmented," applied to a household, denotes that the household includes adults outside the nuclear (or extended) family, but that these adults are living without a spouse.

Household Type	Inonda	Sivepe
1 Generation	1	3
Nuclear	2	12
Augmented Nuclear	-	2
Double Nuclear	2	-
Simple 3-Generation	1	4
Augmented 3-Generation	1	3
TOTAL	7	24

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
62 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
(614) reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
(754) the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
(562) hostile and resistant to whites. Women were often seen ac-
(726) companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
(628) while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
(728) precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived
361 in permanent security." "Hiving off" occurred sometimes
241 as the result of a "quarrel and the fear of retaliatory magic,"
(518) but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
931 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
(199) to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

ground, and with harvesting, which he may not do. Upon marriage, the new wife is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the land of her new affines. Her mother-in-law has to instruct her and it is only after such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

As against these male and female obligations, we may note some clearcut rights: the man's right to his wife's labour and the wife's equally important right of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

This brief discussion of social practices has already indicated that a garden plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the light of rituals, myths and indigenous explanations. It will be best to begin with some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom land may be assigned may be either male or female. Among the Orokaiva it is common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
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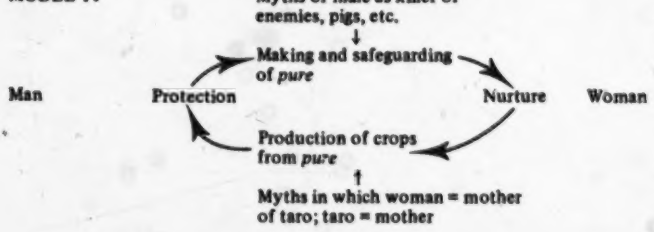
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kowari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
[578] woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in
887 transmigration of souls. But this transmigration occurs through the mediation of
241 the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given
241 away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is
774 believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

Informants were all agreed that at any time either the *enda mama* or the junior member of a land-holding corporation may opt out of the relationship; such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

When such separations occur within a three-generation extended family, they are regarded by the community as (minor) misfortunes. On the other hand, they are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
Such gifts, apart from their economic significance, buttress social relationships
[169] both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
made to a sister or daughter, the husband or son or the recipient must
●593 subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

121 The reasoning is nearly syllogistic...close kin tend to share, to enter into generalized exchanges, and distant and non-kin to deal in equivalents or in guile.

He does, nevertheless, recognise three aspects of kinship distance, namely, genealogical, segmentary and spatial (or residential) distance. Of the third, he writes: 'It is not only the kinship organizes communities, but communities kinship, so that a spatial, co-residential term affects the measure of kinship distance and this the mode of exchange.' (1965:150)

Among the Mt Lamington Orokaiva exchange networks can best be understood in terms of associated kinship-residential groupings, on account of the physical separation of clans into several branches and the frequent juxtaposition of two or more such branches in a single village. Yet, even with this proviso, it is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred (if any important relations exist at all in the context of Murdoch's model) for, not only is the proportion of total production entering into the exchange system small in Sivepe, but the dimensions of the system and the number of persons with which an individual effects significant transactions are also small.

437 The following examination of the major exchange relationships of six selected individuals[1] (see Table 10:17) reveals that many are founded on a specific set of considerations, involving degrees of economic inter-dependence, rather than on general obligations to a wide range of kindred. The conclusions reached are, to a degree, determined by certain assumptions inherent in the mode of analysis. [513] Firstly, the exchanges of individual members of a household are considered instead of those of the household as a whole although a [562] man and his wife, for instance, clearly conduct exchanges on each other's behalf. Secondly, women are treated as members of their spouse's lineage group since this is the kinship context in which they are considered to be the most effective transacting agents. In spite of such limitations the fact does emerge that exchange networks are not readily explicable in terms of formal models of kinship or of exchange based on such models.

Linton. Although only adopted into Timumu clan, Linton behaves as a full member of it and retains few links with his true agnates, many of whom reside less than one hour's walk from Sivepe. The total volume of transactions effected by him exceeds that of the other selected individuals in all but two aspects: the disposal of subsistence produce and the acquisition of labour services in subsistence activities. In spite of the fact that he

1 The same six whose activity patterns are considered above. See pp.117-27.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

repayment was too small. It is also used in the sense of 'earnest' of a repayment that will be made in the future. If the insufficiency complained of is not made up, effectively a *tihanga* remains.

The term *pavonei* is used to indicate that the return payment is considered excessive. Far from being considered gratifying and proper, such a state of affairs is considered provocative and unfriendly. The principal meaning of *pavonei* is a stick planted in front of a coconut palm by a man who has taken some nuts and who thus acknowledges his debt. The setting up of a *pavonei* at a feast means thus to set up in the mind of the recipients of a repayment the consciousness that they are again indebted to their exchange partners. The act of setting up such a *pavonei* is often referred to as *kambari*, a verb that means principally 'to bite, to kill'. The effect of it is that the victims of the *pavonei* will themselves return an excessive repayment, and that the whole exchange will escalate to the distress of both parties. The outcome may either be war or, if relations between the parties become more amiable, one side may decide to call off the battle by restoring the balance.

A very different and entirely legitimate imbalance is what is called a *hande mine*. This is a gift such as should be made when returning a loaned object (implements, ceremonial paraphernalia etc.). It should also be added when repaying a gift made at a time of shortage when the donor himself was badly in need of the thing he gave away. A special case of this are the food gifts made to a bereaved family after a death (when the family may not garden, and when crops from the deceased's garden are no longer consumable by his family). The bereaved family must add a substantial *hande mine* to the repayment of such food gifts because of the presumption that the sudden unforeseeable demand made on the donor's food resources would create distress. The *hande mine*, if omitted, is said to create a *tihanga*.

In some respects the notions about *hande mine* resemble what Sahlins said about the Maori notion of *hau*. The magnitude of the *hande mine* expected with the return of a borrowed object is not related to the length of time it has been kept, but rather to the success the borrower had with it. If a hunter catches nothing after borrowing a gun, he owes nothing. If he has a large bag, he is expected to be generous to the lender.

The question that concerns us here is to distinguish the situations where *tihanga* is created from those where it is not created. This is no easy matter especially because *tihanga* in close associations is extraordinarily hard to establish clearly. I have shown that Orokaiva householders do sometimes count as gifts meals of cooked vegetable presented to certain categories of kin; in comparison to western society far more things are counted in the balance. The crucial distinction seems to be that some debts are reclaimed while others are not. Debts incurred by a child may be claimed by the parents when the child is adult, but in fact the child may start quite early in making some prestations, viz. when he has a small garden of his own. There is nothing extraordinary in the pattern of household co-operation, but many things that in western society would be classified as co-operation are classified by Orokaiva after the model of *hande ari* and *tihanga*.

It is therefore futile to seek to demonstrate an exchange ideology merely

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

from behaviour, because Orokaiva parents give their children, for instance, school lunches, just as parents will do anywhere. It is only when the anthropologist inquires how such behaviour is *classified* by actors, that we find differences, e.g. that an occidental mother will say she is doing her duty to her children when an Orokaiva mother will count the school lunches along with other lots of gift exchange taro she has distributed that day. If the anthropologist proceeds to ask whether the mother expects a counterprestation, a minimum of casuistic talent will suggest the answer to her that she will get it all back in her old age.

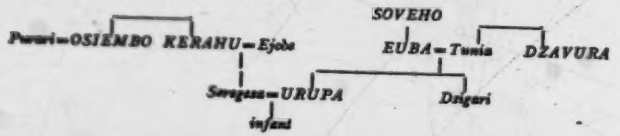
The hard fact is that some *tihanga* are collectable, others not. Naturally one collects what one can. A more apposite but difficult field of enquiry would be: when do people stop allowing others to accumulate uncollectable debts? The commonly given, almost standard answer to unwelcome requests for *hande* is: *irae* (it's all gone). This is by no means always true but, over a longer run, it would be hard indeed to stop giving until the supplies are gone. The only room for exercising free will is in deciding to whom one will share out what one has. Orokaiva do not accumulate debt to the same extent as many other more hierarchised New-Guinean groups,[5] because there is a rule against borrowing for ceremonial prestations. Big men may give on such occasions; they may not lend. Even so, a good part of any *hande* will go to sundry creditors, while the rest will go to set up debts among others. Here the social scientist cannot hope to write rules for what is essentially an art.

One may say that the highest social status is reserved to the skilled manipulator, the *hande embo*, who is also often called *otohu embo*, a term discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not only a generous, honourable man, but even in a sense, 'a holy man'. My field data show that the persons in my village to whom this term may be most nearly applied, practised great care in balancing their accounts and minimising their debts within the village. It was those who lacked ambition for 'big man' status who allowed their debts to ride indefinitely. They did ask for help in feasting and other more or less public causes, but not often the kind that set up *tihanga* against them. It may also be relevant that the rules I have been setting out here do not apply so closely to European type resources such as money and objects bought with money and I never heard that it set up a *tihanga* if a friend pays your taxes. Money was, at the time of my research, little more than a toy, except if it became 'sacralised' by being included in a bridewealth or other ceremonial prestation. To be sure it then became an *integral* part of the Orokaiva exchange system, but even then I do not believe that money could become *tihanga* in the sense that its repayment was seriously demanded upon dissolution of a marriage. Perhaps the explanation of this paradox lies in Sahlins's theory of *hau*: the possession of valuables such as ornaments has a definite *yield*, in blessings gained by the donor, *hande mine* gained by the lender. On the other hand, money (except if kept for other ceremonial prestations) vanishes without a trace, without any noticeable yield, at least among Orokaiva. Presentation of money at a wedding or other ceremony, while highly honorific, is in fact a destruction of value, like coppers at a potlatch.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Naw kahare tato tungenu
Ijoka fouda tato tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among the Orokaiva, though the women do certainly at times act as a solidary group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

575 wife, effectively shaming the husband. Today's organisations are
[593] sponsored by the government as well as the mission. The government
[626] employs a female "welfare officer," attached to the Department of
[657] District Administration at Popondetta, who is charged with the organising and supervising of what are cal'ed women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc., make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on their knowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club, built a club house in 1967 and had the use of a sewing machine. Kiorota had a club house, used not only by the women but also by the men when there were important visitors.

794 In the Sasembata district, the women's clubs became fused with
575 their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too far away to attend regularly at the mission station, several branches were formed, in places such as Kendata and Puri, while the villages within easy reach (Sasembata, Sivepe, Garoubi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepe and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepe woman. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepe at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of 162 the population by age, sex and marital status (see Table 16)[A] shows that 464 the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, 166 in Sivepe, than the number of women. The reason for this change is 167 that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be 464 occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is 583 unusual nowadays for a bridepri.e to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepe, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his [484] affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

● 593 Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. 592 Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden [469] and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepe women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

593 592 further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

469 433 Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour 887 had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows [463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

595 585 586 I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

464 In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

114 464 The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Sebo clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Sebo lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be
[592] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's land; hence initial motivation for a long-term change in residence
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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[1] For the purposes of this survey, a household is a group of people [594] gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A. [See Category 871, p. 307--Analyst]

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

Informants told me of one rule regarding household composition
592 which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do not like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working for wages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)A

My own impression is that the normal household is composed of
592 a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by themselves, even if they have no young children living with them and
[589] do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Oroksiva OJ23
Mount Lamington

TABLE 15

HOUSEHOLD COMPOSITION; SIVEPE AND INONDA COMPARED

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Note: The term "augmented," applied to a household, denotes that the household includes adults outside the nuclear (or extended) family, but that these adults are living without a spouse.

Household Type	Inonda	Sivepe
1 Generation	1	3
Nuclear	2	12
Augmented Nuclear	-	2
Double Nuclear	2	-
Simple 3-Generation	1	4
Augmented 3-Generation	1	3
TOTAL	7	24

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations [622] of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[595] [1] Cf. kiti jigari (p.30).

[2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

[12] [464] assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

[464] [433]

> Ceremonial activity and the preparations therefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

556 [595] Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it [431] provides him with considerable security in times of stress and when making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being [437] reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his [184] status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

583 is still transferred in most marriages, including those which take
177 place in church.
799

Polygyny was accepted but probably not frequent in traditional
595 Orokaiva society. In spite of mission opposition there are still
614 instances of polygyny but the great majority of marriages are
582 monogamous. Marriage outside the clan is considered preferable
[621] but there are numerous cases of marriage within the clan. The
591 village is not considered an exogamous unit. Marriages are usually patrilocal but this is not a definite rule (cf. Williams 1930:130-3).

III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

[1] See map, p.84 A

[2] See diagram, p.85 A and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

593 further such lucrative young females. Of the six, two were Sivepe
592 women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers
464 through migration is already serious (37.8% in Sivepe and 25% in
433 Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above)[A] to the deflection of the adult male labour force which had to support old people whose vigour
887 had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows
[463] who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages
595 were always consecrated at the time the couple was baptised. Several
585 people had at one time been divorced, but this was prior to the time
586 of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village
464 was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study
114 carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

464 A [See Cat. 116--Analyst]

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
Hohorita were married without one. At the present time, bridewealth
[464] is reinstated, and young men go to neighbouring plantations, which are
plentiful--or else further abroad--to earn them. While many husbands
worked outside Hohorita, most of them were able to return home at
●[595] weekends. Polygamy was pronounced before the eruption, but it seems
that the polygamists became victims of the eruption and polygamy no
longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
above that of Sivepe, the reasons are: better facilities during the
years 1945-1951, loss of many members of the older age groups in the
eruption, special efforts made by Bishop Hand at Irihambo to draw
Sangara into mission teaching. This higher standard is reflected in
the statistics of persons who at one time or another have been in
skilled occupations. (Table 21)[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the
average income from coffee in Hohorita is certainly far in excess of
that in Sivepe (about $100 per annum).

891 Hohorita does feel that it is held back by the present educational
provisions which are little better than those in Inonda and much
inferior to those at Sasembata. (At Hohorita, there is no schooling
beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
people compare the school unfavourably with the government school at
the Sangara resettlement block which offers Standard 6, and which,
furthermore, has more highly qualified teachers on the staff. My
own impression was that the head teacher at Hohorita is a very good
man; some of the criticism of him is no doubt due to spite, for he is
of local origin. Still, the general criticism of facilities at
Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
592 of the Sangara tribe and intermarriage with other tribes has been
frequent. The explanation may be found in the pressure, after the
disaster, to find mates when most preferred potential marriage partners
had died in the eruption. This breaking down of the endogamous emphasis
after wars and disasters is, as I pointed out earlier, traditional
among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly
after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though
they had been sons. This was done in an effort, so I was told, to add
to the depleted Sangara population. Men would thus be encouraged to
settle on Sangara land rather than take their Sangara wives home with
them. Two men from the Sasembata district are now living in Hohorita
under this arrangement. They keep up normal exchange relations with
their home district, e.g., I know one of them lent hambo for the kere

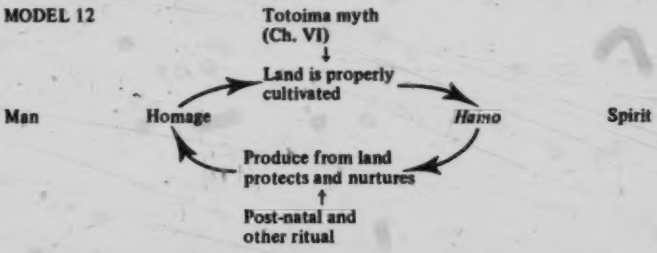
A [See Cat. 116, p. 228--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

was thought to inhere in his old garden plot and in the products growing there, or more specifically perhaps in the water flowing through the garden, for it is in the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

The ritual formulae spoken by the parents in the garden and quoted above both clearly have the form of a bargain, by which the spirit of the deceased is asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those spirits. The senior member of an extended family, the 'father of the ground' (*enda mama*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] [769] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 [627] Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will not accept the decision of the *enda mama* has no option but to leave the village and forfeit his patrimony. 596

Economically, the *enda mama* is theoretically in full control of all products of the soil and of all resources owned by his family. He also has full control over the allocation of land to family members and others, with the proviso that his sons, if any, should get at least 'half' of the land when he dies. [423] [428]

In summary, the religious, political and economic attributes of the extended family enable us to describe it undoubtedly as a corporate group. It has to be recognised, however, that the parcels of land controlled by this corporation vary considerably from generation to generation. A corporation will shed parcels which are permanently vested in other lineages, and will obtain new parcels from uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin (1963) have all treated this land corporation as comprising a 'lineage', so that it may seem idiosyncratic that I am calling it an 'extended family'. My reason for changing the description is that I was unable to find any case of an extended family lacking an *enda mama*. There are, of course, lineages comprising more than one extended family, but in such cases one finds more than one *enda mama*. Crocombe and Hogbin, faced with this phenomenon, added the term 'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small sample contains no case of a 'sub-lineage' comprising more than one extended family. In these circumstances we may well delay discussion of the range of control of the *enda mama* until we examine patrilineal ideology in Chapter X. 596 613 [423] [425]

We notice, however, an apparent conflict between patrilineal ideology and practice. According to the ideology, an Orokaiva patrimony is passed on from an *enda mama* to his successor; there is no rule for splitting up the patrimony between the sons of a deceased *enda mama*. How does it come about, then, that every extended family has its own *enda mama*? The process is easy to describe. It is customary for an *enda mama* to allocate land to all married men of his extended family on a more or less permanent basis. He has the right to change these allocations when special circumstances arise but changes do not occur often. As the *enda mama* becomes older, and less able to make his own gardens, he tends to distribute more and more plots, either to his sons or to other persons of his choice. Though the patrimony remains undivided in theory, in practice it is being divided. In this subdivision, the rights of brothers are supposed to be equal regardless of seniority. 596 423 425 [428]

When the older brother dies, the position of *enda mama* passes to the younger brother. The sons of the elder brother then retain no rights of succession and will depend for their well-being on the new *enda mama*, their uncle, who often adopts them if they are young. If the younger brother dies, and there are no other brothers left, the younger brother's eldest son becomes *enda mama*. The custom in such cases seems to be that the portion of the original patrimony set aside for the elder brother should go to the sons of the elder brother; the portion set aside for the younger brother should go to the sons of the latter. Theoretically the eldest son of the younger brother would be *enda mama* over the entire original patrimony but in practice a gradual splitting up would be inevitable. Orokaiva do not easily accept the authority of their cousins or adoptive brothers. 596 428

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23 ,
Mountain Orokaiva

In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

Informants were all agreed that at any time either the *enda mama* or the junior member of a land-holding corporation may opt out of the relationship: such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

When such separations occur within a three-generation extended family, they are regarded by the community as (minor) misfortunes. On the other hand, they are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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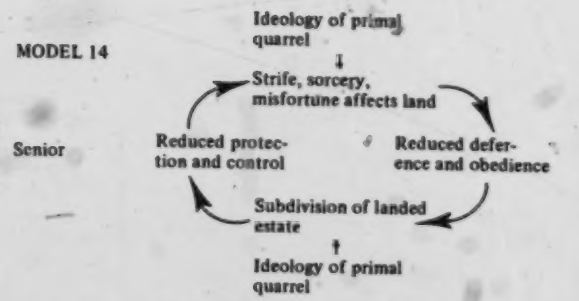
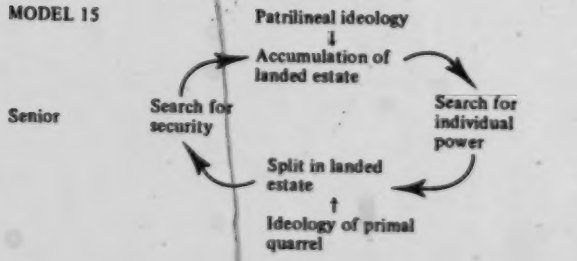
MODEL 13

MODEL 14



Models 13 and 14, when considered together, represent two phases of the history of a family. In the first phase a man who has separated out, aided by his sons, establishes his own landed estate. Gradually, he adds to his estate in various ways (conquest, inheritance from maternal relatives, etc.) and he adds to the number of adherents to whom he is *enda mama*. Before two generations have elapsed, the estate thus established will probably be subdivided again. The process of incorporation and subdivision repeats itself *ad infinitum*, and may be expressed in the following cycle:

MODEL 15



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

613 Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which [428] patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

596 428 The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

423 425 [428] The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

423 425 613 614 The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

423 425 583 [593] [582] Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

474 share to the owner of the land. This activity started some time after
177 1947 and ceased with the eruption of Mount Lamington. It involved
241 "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 The pattern of production of the Sivepe rice resembles that
241 of the communal yam gardens. There also, several men may plant together in the garden of one of them; the users are then expected
[427] to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of
[829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 Today, Sivepe has three forms of economic organisation. The
[596] dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

TABLE 15

HOUSEHOLD COMPOSITION; SIVEPE AND INONDA COMPARED

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Note: The term "augmented," applied to a household, denotes that the household includes adults outside the nuclear (or extended) family, but that these adults are living without a spouse.

Household Type	Inonda	Sivepe
1 Generation	1	3
Nuclear	2	12
Augmented Nuclear	-	2
Double Nuclear	2	-
Simple 3-Generation	1	4
Augmented 3-Generation	1	3
TOTAL	7	24

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

614 Pekumā (9 persons), 28.2 acres, 3.1 acres per head)
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head) Timumu
(If Jegase and Timumu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timumu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 Three members of these clan branches stated that they intended
423 to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).[A] Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).[B] One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).[C] One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).[D]

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 In former times it was not uncommon for a successful warrior to
727 bring back the son of a victim he had killed during an intertribal
425 raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepo. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A,[See Category 428, pp. 111-117--Analyst] B,[See Category 428, p. 112--Analyst]
C, [See Category 428, pp. 112-113--Analyst] D,[See Category 597, p. 60--Analyst]

597 rights he has already received from his natal group before he may acquire proprietary rights and become a permanent member of the adoptive group. He may transmit the former rights to his sons, themselves full members of the new group.

[425] As long as he stays with this group and land is not in short supply he may inherit an equal share with his adoptive father's children. All rights are relinquished if he returns permanently to his natal group. If the land held by the adoptive group is scarce and extensively used by its members, he may become a permanent member of this group without acquiring rights to its land, especially if he was not previously related to the group or if he has access to other land.

An adoptee can continue to exercise his rights to land of his father if it is nearby but it may be difficult for him to retain land which is too far away to cultivate often and, unless he has close kin there protecting his interests, his rights and group identification tend to be contested.

The way rights are established by adoption, as with rights acquired by other processes, cannot be predicted far in advance for the actual rearrangment of proprietary rights in any particular case will be determined by the current relations between the parties involved.

425 597 By way of example, one man born into Ato clan is living with his wife's lineage, Bebehupa (of Jegase clan). He has no other close kin and Avala is the nearest place of residence of any member of his natal clan; he is widely and consistently spoken of as a Jegase man (d6J). When his father, a member of Heherita village, was accidentally killed when trying to mediate in a violent dispute between his clansman and Jegase people, his mother married a man of Arehu lineage. He was never given rights to plant on his foster father's land because it was under heavy use but he inherited some land near the Jegase holdings from his father. His wife also inherited land from her father, a Bebehupa man, who had no sons or brothers, and he has sometimes cultivated that.

However, due to serious illness, he is not active in the social and political affairs of his foster father's and affines' local descent group. As he is in a dependent and marginal social position and can use land of his own, his intermittent efforts to cultivate the Bebehupa land are not warmly welcomed by the leader of this lineage, regardless of the stated intentions of both the adoptee and his wife, a childless couple, to pass the land which each inherited to the sons of the Bebehupa leader.

613 614 In practice there are no land rights and obligations which the different Jegase lineages recognize toward each other as members

those visitors who had given most cash. In former times, they said, feasts usually continued for two to five days, but today there is a tendency, particularly in areas where paid work is available, to get them over in a single night or week-end.

While the rationale for the party was the birthday of the two children, they were in fact conspicuous by their absence from any aspect of the celebrations, feasting or exchange. The changing modes of dancing, dress, entertainment and economic exchange showed a constant striving to acquire foreign behaviour patterns. The feast did serve to confirm the adoption of the children (which had not previously been formalized) and to affirm the bona fides of the son-in-law who had been unable to meet his bride-wealth obligations. But it appeared to me that the main motive of the promoter (a retired mission teacher whose prestige was considerable, but waning in his retirement, and whose status was marginal in a patrivirilocal society in which circumstances forced him to live in the village of two of his daughters' husbands) was to reaffirm his prestige and reinforce his stake in the village of his residence.

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three categories in relation to particular clans, i.e. a man may be a primary member of an Inonda sub-clan and a secondary member of his mother's clan; or a married woman may be a contingent member of her father's clan, a secondary member of her mother's clan and a permissive member of her husband's clan. Each category may be sub-divided according to sex, for the rights of males in each category are in some respects different from those of females. Hunting rights, for example, are never exercised by women though occasionally a husband hunts on the land of his wife's sub-clan. Likewise food gardens are seldom planted by a married woman on land in which her lineage has proprietary rights; and men quite often harvest tree crops from their mothers' lands, though women seldom do so.

The people of the Andiriha and Jego'undi sub-clans of Inonda recognize all other members of their respective clans, wherever they reside, as kinsmen. Although distant kinsmen visit for feasts and ceremonial occasions, only those persons who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

The status of adoptees varies according to individual circumstances as the following examples show. About fifty years ago the Andiriha (who were then living at Sambogo) attacked a village of a neighbouring but unrelated Managalas tribe. Some of the inhabitants were killed and others fled. Two small boys who were captured were adopted by an Andiriha

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

428 The inheritance of economic trees is a little more complex. All of them take a number of years to mature (about fourteen in the case of sago) and several informants mentioned that "trees are for the children". It is quite common to plant trees and name them for specific children or grandchildren. Although most trees were said to have been planted by the father or grandfather of the present owner, there were several instances of inheritance from a brother or fathers' brother. It is quite common for an individual to inherit a few trees from matrilateral kin (almost invariably one's mother's father or brother). This practice is not universal and several men claimed no trees from matrikin. Informants indicated that the practice of giving trees to non-resident kin was less common in past generations, but has become more widespread with the increased mobility which has resulted from the post-war improvement of communications. The evidence collected supports this view, for although few of the older men had received trees from matrilateral kin, all those with married daughters had allotted a tree or trees to their grandchildren.

[599] As earlier noted, adoption (of various degrees) is widespread. Many adoptees who acquired no long-term land rights or other property from adoptive parents did receive one or more trees. One man in particular claims trees from three successive adoptive fathers.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

797 this became the core of a new community. At the time of my arrival the European mission sister had been replaced by a Papuan assistant medical officer who, though from another tribal area, strengthened the Papuan missionary group. There were ten teachers, a priest, a deacon and the medical officer, together with their mostly large [877] families--a population that must have been close to 100. Also on the mission station were the boarding school students, adolescents from various districts (their number was around 60), some of them related [597] to the mission teachers. It was customary for the teachers to adopt the children of relatives to be educated on the station under their care. This further added to the Papuan mission station strength.

797 In this atmosphere the European staff, though indisputably in 177 command, were severely handicapped, as usual, by their lack of information about what was really happening on the station. Not infrequently, I was better informed about this than the head teacher, because the station gossip would flow very easily into Sivepa whereas the mission staff were careful not to tell the head, for fear of inviting instructions they might not wish to obey. The big building projects, such as the hospital, were organised without his knowledge; the workers suddenly appeared and started work; after a few weeks pulled down the building, not being satisfied with it, and started again. They only approached the head when they wanted nails.

To the Orokaiva of the district, the real power struggle was not with the head but with the mission staff. This does not reflect on the head personally; indeed, shortly before my departure, he became a candidate in the Higaturu Council elections and was elected councillor for the ward which includes the mission station, on the votes of surrounding villagers. This very fact, however, indicates that he was not involved in the power rivalries surrounding the station; it was expected that he would be effective in negotiating with the council for water supplies, roading improvements and such like and that, being virtually a stranger, he would not upset existing power relations.

The power rivalries arose because the mission station Papuans regarded themselves as definitely superior to the villagers. The Motu-speakers especially thought of themselves as carriers of a higher culture than that of the Orokaiva--better dances, better loincloths, better headdresses, better pots, and above all, a long association with the mission during which their district had become altogether more civilised than the inland people. It was because the Orokaiva were ignorant that they had to depend on Motu mission teachers.

This boasting troubled the Orokaiva especially because it had some factual basis. Much present-day Orokaiva culture is borrowed from the coast and coastal art and technology is superior in sophistication. Gona was the birthplace of the Anglican mission of the Northern District; hence, the coast has produced a disproportionate number of priests and mission teachers, the most prominent of whom is the Bishop who is himself a Gona man. In these circumstances owners of land surrounding the mission station saw some risks in making

of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made much difference here. For instance, nobody in Sivepe, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

Compared to the two sample villages, Hohorita is a more densely concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

In contrast to Sivepe, there is no tendency for clan groups to fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found. Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

It is obvious, first of all, that the Orokaiva rules concerning bilateral cross-cousin marriage and reciprocating pairs of groups are not free from ambiguity. The term *simbo* is not synonymous with the term 'cross-cousin'. Not all societies which have reciprocating pairs of groups have direct marriage exchange, as Lévi-Strauss showed in respect of the Koiari. The fact that the Sivepe people were partners in no less than twenty-five reciprocating pairs of groups in two generations poses the question whether this apparent instability corresponds to a structural regularity such as the 'sex affiliation' of the Koiari. Furthermore, in view of Lévi-Strauss' analysis of the African *lobola*, we need to investigate whether the Orokaiva institution of bridewealth (*dorobu*) is consistent with the principle of direct marriage exchange. Such inquiries would not serve to deny the reality of this principle in Orokaiva culture but rather to raise the possibility of the combined presence of direct and generalised exchange.

6. *Kinship Terminology*

Though Williams' description of Orokaiva kinship terminology is generally very accurate, it is deficient in two respects: his definition of the term *simbo* (quoted in section 4 above) is inconsistent with Orokaiva usage and he gives no terms for female speakers. Yet it is in these two areas that we find the key to Orokaiva marriage. We have seen that a *simbo* is – always and exclusively – a marriageable consanguine. If Williams were right in saying that a *simbo* is also – always and exclusively – a cross-cousin, then a rule of bilateral *simbo* marriage would be unambiguously equivalent to a rule of bilateral cross-cousin marriage. If the term *simbo* could be positively defined as a bilateral category of cross-cousins (as the Aranda do), then again we would have a rule of bilateral cross-cousin marriage. In the absence of a positive rule, however, the Orokaiva kinship system could not be regarded as 'elementary' in Lévi-Strauss' sense of the term, and thus it would not contain a true rule of bilateral cross-cousin marriage.

Again where such a rule prevails consistently, there would seem to be no need of special affinal terms. Williams, entirely correctly, gives a set of distinct affinal terms for male speakers which would suggest that the whole system is based on generalised rather than restricted exchange. Williams' explanation of this apparent discrepancy appears to be an evolutionary one: *dorobu* came first (and established the terminology) while *mine* developed later. As we shall see, the reality is more complex, as the Orokaiva use two types of affinal terminology: one type which is consistent with generalised exchange and another which is consistent with direct exchange. The former of these two types of terminology is in regular use by men and the latter by women. This fact is consistent with the theory that the Orokaiva marriage system is a combination of generalised and restricted exchange.

For the purpose of a componential analysis of terms we shall consider only terms used in face-to-face interaction by *ego* to address an *alter* when no other relative is present. The following dimensions of contrast apply:

Consanguine(C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.

[TEXT CONTINUED ON PAGE 205]

Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G–O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: M: Male; F: Female.
Sex of ego: Em: Male *ego* Ef: Female *ego*
Relative sex of ego and alter: SS: Same sex. OS: opposite sex.
Relative sex in consanguineal linkages; //: Relationship is either wholly agnatic or wholly uterine. X: relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite-sex linkage.
Marriageability (same generation only): Ma: Relationship belongs to marriageable category. NMa: Relationship belongs to non-marriageable category.
Relative age of alter: Sr: Older. Yr: Younger.

Using this code, we may define in the following way the kinship terms used in addressing consanguines. The bracketed terms are in the dialects from which Williams' information is drawn.[1]

epe:	M	Sr	G2	C			(Williams: *ahije*)
	M	Sr	G1	X	C		(Williams: *nobo*)
jape:	F	Sr	G2	C			(Williams: *ahije*)
mama:	M	Sr	G1	//	C		
aja:	F	Sr	G1	//	C		
tata:	F	Sr	G1	X	C		
apa:	SS	Sr	G–O	//	C		(Williams: *bitepemi*)
	SS	Sr	G–O	X	NMa	C	(Williams: *simbo*)
eambo:	SS	Jr	G–O	//	C		(Williams: *biteambo*)
	SS	Jr	G–O	X	NMa	C	(Williams: *simbo*)
du:	OS	G–O	//	C			
	OS	G–O	X	NMa	C		
simbo:	G–O	X	Ma	C			
meni:	M	Jr	G1	//	C		(Williams: *mei*)
iai:	F	Jr	G1	//	C		
ahije:	Jr	G1	X	C			
	Jr	G2	C				

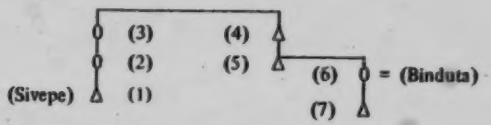
This componential analysis, prepared from Orokaiva ideological statements, contains all the ambiguities characteristic of the system itself. Different local clan groups are supposed to use sibling terms in addressing each other. But this is above all a strategic device to emphasise the obligation of mutual political and military support. Extension of the exogamy rule to distant clansmen would logically follow from their classification as siblings, but serve no useful purpose. On the contrary, if local clan groups live at some distance from one another, the bonds between them will wear rather thin unless intermarriage between them actually does occur. In practice, distant local clan groups are not infrequently used as partners in reciprocating pairs of groups. They are then regarded as not 'really' agnates, and terms of address such as *simbo epe*, *tata* are used. Once intermarriage has been instituted such terms are regularly transmitted from one generation to the next.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 Within the village, two different principles prevail according to the presence or absence of a generation difference. Where a generation difference exists, opposite sex linkages are always expressed in terms of address. A mother's brother is always called *epe*. The *epe/ahije* bond is based on mutual affection and voluntary support, whereas the *mama/meni* bond is based on strong mutual obligations and an authority/obedience relationship. On the other hand, collaterals of the same local clan group will never call each other *simbo* even though biologically they may be cross-cousins. They use sibling terms and are strictly bound by exogamy rules. In a multi-clan village, collaterals of different clans will sometimes use sibling, sometimes cross-cousin terminology. Here the criterion is whether the persons concerned shared a plant emblem (*hae*).

582 614 824 A rule that was expressed to me often and forcibly was that people should not marry if they share a paternal or maternal *hae*. The relationship of a person with his *hae* is one of complete identification. If a man says that his *hae* is *sasaha* grass, he means that *sasaha* grass is his 'ancestor' and that he himself *is sasaha* grass; i.e. he is completely identified with it. If two people are identified with the same plant in this way they are siblings; they cannot possibly be anything else.

601 602 In general therefore a *simbo* is someone with whom one does not share a *hae*. This rule obtains whether or not *ego* and *alter* live in the same village. A study of actual kin relationships between *simbo* in different villages bore this out. A typical *simbo* relationship would be between *fafasiso* children/*famobrososo*. The *fafasi's hae* would be transmitted to her son, but not to her son's children. The latter would therefore share no *hae* with the grandmother's natal family. Some *simbo* relationships are far more distant than the one quoted here. A typical example is the following:



Here the *simbo* relationship links families of two villages, Sivepe and Binduta. The genealogical pattern may be accounted for by extremely strong attachment between siblings of opposite sex (*du*), and for the tendency for this strong attachment to be reproduced in the next generation. The genealogical connection between *simbo* often passes between two or more of these *du* linkages. A person thus tends to have numerous *simbo* scattered in many villages with some of which has own village may never have intermarried. Even a limited amount of intermarriage between villages may set up a good number of *simbo* links between them, as the links of filiation and siblingship to which the genealogies refer are often merely classificatory. For instance, the individuals numbered (3) and (4) in the above diagram were not true but classificatory siblings.

It will be noticed that the *simbo* category can be defined only by a series of negative rules. It is a set of distant kinsmen which remains when positively

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

defined sets of consanguines have been excluded. Marriage with the *simbo* cannot therefore be regarded as following the principles of an 'elementary' system of kinship. In practice it does not take many generations before the intermarrying groups forming a 'reciprocating pair' are married out, i.e. unable to supply any further partners to each other. In Sivepe, Jegase and Seho, even with only seven current intermarriages out of sixteen households and a reciprocating relationship of less than three generations, seemed to have nearly exhausted all marital possibilities. The difficulties of my interpreter, a bachelor belonging to the Jegase clan, will serve as an example. He was not allowed to marry the girl he loved (Seho clan) because she was a classificatory mother's sister's daughter. But there would have been equally grave obstacles if he had wished to marry into four of the remaining six Seho households, as the girls of these households shared either his father's or his mother's *hae*. The rule prohibiting marriage with a person sharing a paternal or maternal *hae* has an interesting randomising effect that should be briefly discussed. At least forty-two *hae* were used in Sivepe. The persons sharing these *hae* were by no means always close relatives. They might be wives of Sivepe men, and born in a quite different village. Again, some people had many *hae*, four or five was quite common. In these circumstances the Orokaiva rule could never produce a stable system of four or more sections, as any section might at any time adopt a *hae* which would prevent marriage with another section. Furthermore, any portentous event, such as a woman falling to her death from a certain species of tree, would lead to the introduction of a new *hae* which might be adopted by several persons for reasons of sentiment or religious awe rather than the regulation of future marriages. Finally, individuals not infrequently transmitted maternal *hae* to their children, especially if they resided matrilocally or uxorilocally.

We conclude therefore that the rule of marriage with the *simbo* resembles a game of chance in which the odds become progressively more unfavourable, though the rate at which they become worse is itself determined by chance. In practice, therefore, every village played at many tables at once, not only because of ecological circumstances, vicissitudes of war and the need for alliances, but also because the rules of marriage themselves make no other strategy possible.

7. *Sex Affiliation*

It is an understood principle that under a system of restricted exchange the matrimonial destiny of brother and sister lies in the same kinship group whereas under generalised exchange it is different. Williams' data on the Koiari, as analysed by Lévi-Strauss, show that this tribe strongly emphasises difference of matrimonial destiny by the device of giving the brother a paternal and the sister a maternal clan name. Among the Orokaiva the principle of sex affiliation is likewise utilised, though far more feebly, to convey a simple message. The firmest evidence is found in kinship terminology and in the theory of paternity.

For the purpose of componential analysis of terms used in addressing affines, one dimension of contrast must be added to those given in the previous section. We shall distinguish sister exchange and *dorobu* marriages by the following code:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 *Min*: Sister exchange marriage. *Dor*: Marriage 'by purchase'. Under this code, we may define the following terms:

1. *Terms principally used for addressing consanguines*:

epe:	Ef	M	Sr	Gl	A
	M	Sr	Gl	A	Min
tata:	Ef	F	Sr	Gl	A
	F	Sr	Gl	A	Min
ahije:	F	Jr	Gl	A	
	Jr	Gl	A	Min	

2. *Exclusively affinal terms*

atovo:	Em	M	Sr	Gl	//	A	Dor	
imbohi:	Em	F	Sr	Gl	A	Dor		(Williams: *imboti*)
behere:	Em	SS	Gl	X	A	Dor		(Williams: *betere*)
dambo:	Em	SS	G–O	//	A			(Williams: *nabori*)
	Em	SS	G–O	X	A			(Williams: *betere*)
hovatu:	OS	G–O	A					
bi:	Ef	SS	G–O	A				
imi:	M	Jr	Gl	A	Dor			

601 602 The fact that a brother and sister, upon marriage, use different types of affinal kinship terms corresponds to a fundamental difference in their social position in relation to their affinal family. The brother, under a *dorobu* marriage contract, remains a perpetual debtor to his affines. He has deprived them of their most precious possession, a nubile daughter, without giving a woman in exchange. Even though he has given bridewealth and done bride service, and continued making prestations of many kinds, these propitiatory offerings do not wipe out the debt. The *imi* must therefore always act with humility and feel shame when he meets his *atovo* and even more, his *imbohi*. His sister, however, is under no such burden in her relations with her own affines. Her position is precisely the same, whether the marriage has been established by *mine* or *dorobu*. Her use of consanguineal terminology expresses her far greater familiarity and identification.

[591] It might be argued that such familiarity and identification is the direct consequence of patrilocal virilocal residence, but such residence arrangements do not always lead to the terminological differences I have described. These differences, however, are consistent with an ideology which emphasises the detachment of women from their natal clans and their close attachment to their mother's village to which they are supposed to move upon marriage.

842 614 Such an ideology is further emphasised by the Orokaiva notions about paternity. Orokaiva believe that a male child is formed in the womb as the result of sexual congress between father and mother, but that a female child is formed by 'the mother sleeping alone'. The male child therefore carries the 'blood' of the father, enabling the child to carry on the father's lineage, but the female child does not. She is still a member of the paternal clan but the connection is evidently viewed as social rather than physiological. Accordingly all females are named by their mother's consanguines, in contrast to males who may be named

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

reciprocating pairs of groups in a state of pseudo-commensality. They share not only the land but also its products. The symbolic significance of taro, as set out in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social structure. Social structure, in the sense in which I am using the term, is most clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to the structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

614 wider grouping of Jegase clansmen in the neighbourhood, which we
613 describe as the 'dispersed clan branch'. This consists of the reputed descendants of Jegase men said to have once occupied together the settlement Simbehata-Totogata on the territory since associated with the group. It now has its largest single nucleus at Sivepe but includes also the Bebehupa men scattered in other villages, who recently separated from other members of the lineage now at Sivepe.[1]

Several writers have described one order or another of localised patrilineal groups in this census division as lineages (Belshaw 1951:2; Reay 1953:115; Norton 1962:3); in calling the Sivepe groups lineages, we have maintained some consistency with the terminology used for their formal counterparts in the survey at Inonda.[2]

Each lineage in our sample at Sivepe retains a name said to have been transmitted from some remote patrilineal ancestor and each shares a distinctive plant emblem, erahu, associated with its identity as an agnatic group (see Appendix D). Williams (1925:410) notes that the erahu of matrilateral kin is used by householders to mark their distinctive personal identity within their patrilineal group.

The adult male membership of lineages represented in the sample, excluding absentees who have moved from the neighbourhood, ranges from 1 (Arehu lineage) to 9 in the case of the Bebehupa members of the dispersed clan branch. Members of each group trace precise genealogical relationships to one another. All the Bebehupa men with one possible exception can do so. Genealogical memory is short. Ancestry can be traced back to men of the generation of

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[1] We should emphasize that the 'clan branch' and 'dispersed clan branch' are not groups at different levels of a hierarchical lineage structure and that the distinction is a device for discussing the Jegase groups in question.

[2] At Sivepe we found that the use of the term ahije (or haije) was not restricted to reference to the founder of a lineage as at Inonda (Crocombe and Hogbin 1963:17). Any members of Jegase clan are called Jegasetahije and the founder of the clan is also their ahije. Moreover, the term may be used in another sense both to refer to any of ego's male cognatic ancestors or to denote any (or all) of a man's immediate cognatic descendants. Similarly epihe, said by Norton to refer to a lineage seems to be used rather for ego's maternal uncle or grandfather, paternal grandfather, etc., epimane (pl.) being a term for a number of these kinsmen, not for a number of lineages or a clan. Unlike ahije, this term is not used for descending generations too.

A, [See Category 613, p. 110--Analyst]

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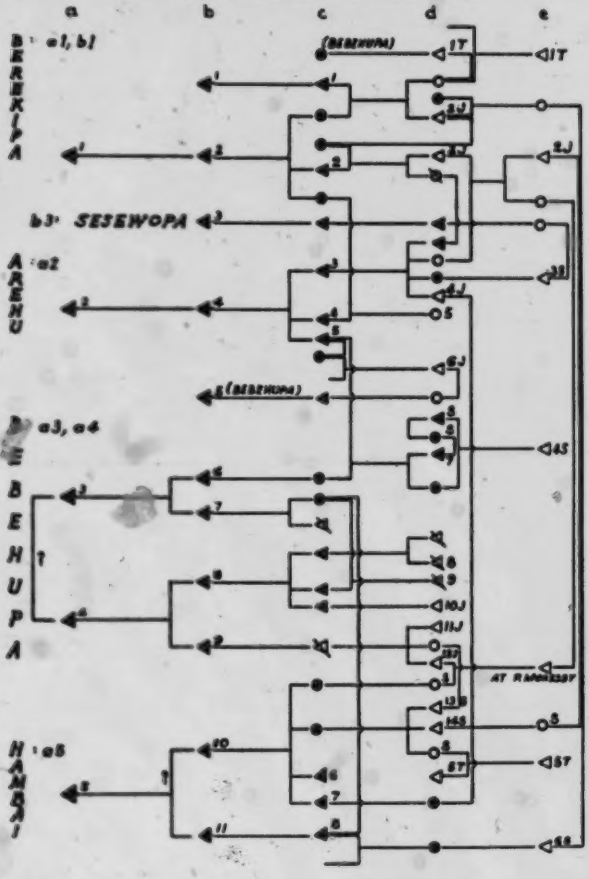
A GENEALOGY OF THE SAMPLE

△ Adult male at Sivepe ○ Female ◀ Deceased ⊘ Resident of nearby village. Significant non-agnatic Kin ties are shown. The numeral and generation of the known ancestor of each Jegase lineage are shown beside the initial of its name. A suffix to numeral identifies Jegase (J) and Timumu (T) householders. Soho members are denoted by S (preceded by a numeral for Sivepe householders)



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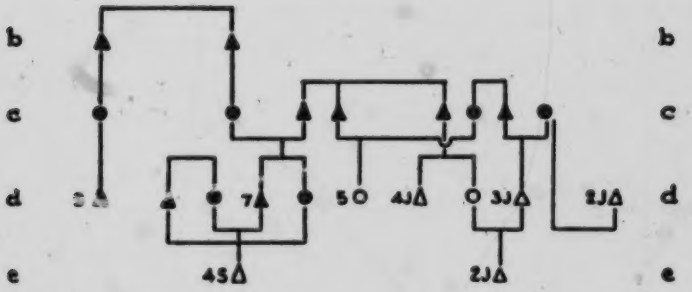
SELECTED GENEALOGY I



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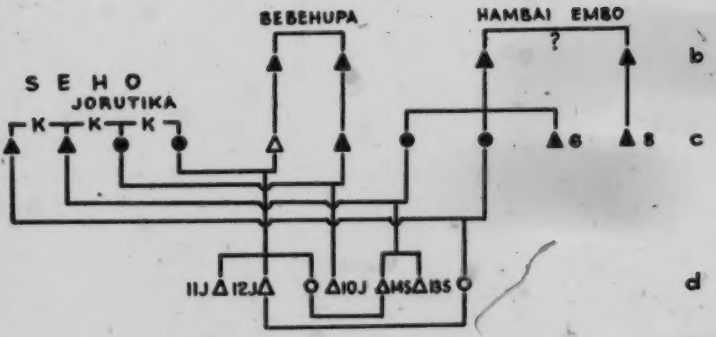
SELECTED GENEALOGY II



437 produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

437 Other major exchange relationships operate with affines, matri-
561 lateral and patrilateral kin and are typically restricted to members
[602] of the individual's age group, for example, cross-cousin, wife's brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, who were of both sexes and stood in a defined relationship where
[178] each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

437 In effect, regular exchanges operate between members of one's
602 own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[601] [1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

affiliations has changed. In 1962, when Rimoldi did his survey of the community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

One striking characteristic of the village layout of New Sivepe is that all the Seho houses are grouped together on the same bende while the other bende of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss under the term "dimmetric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

In this essay, I shall present data on the friendship universe and show that Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

Between the districts where the data were collected, there are slight differences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

601 [571] our concern is with the total *philia* universe. Meaningful contacts outside the village tend to be almost wholly with persons of the same generation. I shall therefore discuss the intra-generational terms of reference and address, both in the kin and friendship idioms, and both in the Sangara and Sasembata dialects.

The kinship idiom[7] (discussed in detail in Schwimmer, 1970a) contains four consanguinal and three affinal terms; an oversimplified analysis gives the following meanings (for an explanation of the symbols, see footnote 7):

apa SS Sen G-O //C	*simbo* G-O X C	*dambo* Me SS G-O A
eambo SS Jun G-O // C	*ivu* husband	*hovatu* OS G-O A
du OS G-O // C	*ae* wife	*bi* Fe SS G-O A

602 601 Affinal relations, according to explicit Orokaiva norms, are cold, formal, and distant though polite, and restrained by strict taboos. Affinal terminology always carries the connotation of obligation and avoidance, and it is never suitable for easy informal discourse. Indeed, when a person desires to keep up easy, informal relations with an affine (and this occasionally happens), his only resource is to maintain whatever term of address he used before the marriage.

[171] All the consanguine terms, however, are regularly used in addressing unrelated persons with whom hereditary friendship links exist, at least in the Sasembata district. *Apa* and *eambo* are also used between men in the same context as the Maori use the term *hoa*; that is, informally and without any implication of kinship or permanent relationship. The wife of a fictional *apa* or *eambo* is called *du* (sibling of opposite sex), but never by an affinal term. The fictional *simbo* differs from the fictional sibling with regard to reciprocal rights and obligations, as will be shown below.

572 The following Orokaiva terms are used exclusively in a friendship context: *namei* (Sangara) or *apa/eambo* (Sasembata), designating a male friend of a male speaker in the same generation; *otavo* (Sangara and Sasembata) meaning a partner in trading or dancing, or a journey, or a war expedition – a

7 The following classificatory principles underlie the Orokaiva kinship system:
Consanguine (C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.
Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G-O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: Me: Male. Fe: Female.
Relative sex of ego and alter: SS: Same Sex. OS: Opposite Sex.
Relative sex in consanguineal linkages: //: Relationship is either wholly agnatic or wholly uterine. X: Relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite sex linkage.
Relative age of alter: Sen: Older. Jun: Younger.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 less diffuse term than *apa/eambo*; *jao* (Sangara and Sasembata) designating a *namei* type of relationship between women, used commonly between unrelated married women living in the same village.

Friends as a Distinctive Set

601 572 The Orokaiva employ certain collective terms to designate the *philia* universe or distinctive parts of it. Thus, the term *mamahane* (father's people) designates the agnatic group, *epehane* (mother's brother's people) the maternal relatives, *aerihane* (wife's people) the affines, and *japehane* (literally, grandmother's people) the father's mother's group. There is, in addition, a term *nameikamei* which comprises the total *philia* universe including an undefined residue of non-kin as well as all the groups listed above. Although Sasembata do not use the term *namei* (friend), *nameikamei* is heard regularly. In neither locality was a collective term found which exclusively comprised the non-kin in the *philia* universe.

The term *nameikamei* certainly covered, apart from the kinsmen, the (Sangara) *namei* category and the *jao*, terms which are both regularly inherited bilaterally. I cannot say for certain whether the *otavo* and (fictive) *simbo* categories would be included in the *nameikamei* group. These terms may be employed in fairly casual relationships, but in time, persons calling one another *otavo* may decide to use a sibling term, thus making the relationship hereditary.

Statistically, non-kin make up only a small part of the *philia* universe. A man might be able to list several dozen *nameikamei* in villages more than three miles from his home, and non-kin would make up only 20 to 25 percent of such a list. (It should be noted that my statistics are somewhat cursory, as I could never be sure that any informant's list was complete.) Visits from non-kin tend to be made at greater intervals than visits from kin and they last a shorter time. One could safely say that non-kin are, on the whole, on the periphery of the *philia* network, as is the case among the Tangu.

An interesting difference between the two systems is that the hereditary relationship which is between fictive brothers-in-law among the Tangu, is between brothers (*apa/eambo*) among the (Sasembata) Orokaiva. It would be considered not only chilly but frightening for an Orokaiva to call his guest friend *dambo* – affine avoidance being stronger than among the Tangu.

Orokaiva Cooperative Alliances and Reciprocating Partnerships

571 [621] [614] Cooperative alliances tend to vary in size according to the purpose of the alliance. In pre-contact times, the village was a cooperative alliance in warfare and in large feasts, comprising between six to twelve households. For bridewealth and death payments, the alliance comprises the plant emblem group (Williams, 1925; 1930; Schwimmer, 1970a), the nucleus of which approximates a four-generation lineage, although it also has other members.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

602 One might well regard such immoderate claims as the response to a
423 breakdown in the social exchange relationship. According to model 17, increased
425 rights over land should mediate an *increased* quasi-filial allegiance, implying an
increased willingness to aid and share with maternal relatives. Such, however,
[245] was rarely in evidence. On the contrary, most coffee-growers, engrossed in the
new task of growing coffee, tended to ease up on their family obligations, gave
[797] fewer feasts and were apt to neglect their maternal relatives. This was especially
so because Church influence reduced the scope of initiation ceremonial which is
[881] one of the traditional key functions of the maternal family. Certainly the
maternal family hardly shares at all, under normal circumstances, in the
increased wealth generated by coffee-growing. Thus the uterine landowner feels
relatively alienated from his affluent nephew.

614 In order to demonstrate the importance of quasi-filial allegiance as a factor in
423 land transactions, I shall cite one case, again from Inonda, where coffee gardens
425 are being run profitably on land over which the grower holds only 'permissive'
rights. The three coffee gardens established in 1955, and still harvested in 1967,
are on land owned by the Endehi'undi clan but relinquished after a defeat in
[435] war. It has been used by Andiriha of Inonda since 1915. When Inonda people
started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash,
as well as pigs, traditional valuables and taro, in other words, a very substantial
consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha
continued to benefit from the coffee, it became obvious that Endehi'undi did not
regard this consideration as a *sale* price as Andiriha hoped they would do. They
saw it as no more than a proper display of quasi-filial allegiance, and expected
this sort of gesture to be repeated, or to recover the land.

[736] The Andiriha leader now invited a widower belonging to the Endehi'undi
group to move into his household. The invitation was accepted and in 1967 the
old man was still there. There was no further trouble over the coffee although
Andiriha did not tempt fate by making further plantings. By Orokaiva legal
concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader
had found a way to offer increased quasi-filial allegiance in such a way that the
profit from the coffee gardens was not reduced too much.

423 Instances of this kind help us to understand what was involved in the
425 Orokaiva system of residual or dual rights over land and dual allegiance owed by
571 individuals to different families from which land useholds are derived. We have
long tended to believe that the basic co-operating groups in primitive societies
are *corporate* groups. The Orokaiva data presented here show a second
possibility: namely a system by which individuals derive their land, and therefore
their sustenance, from a cluster of corporate groups in only one of which they
are a corporate member, although they maintain permanent exchange relation-
ships with the others. These other corporations do not make them permanent
gifts but leave them conditional upon the successful continuation of the
relationship. The fact that a man holds land on such terms *forces* him to
continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

824 The present chapter elaborates these ideas, as applied to taro gifts among the
431 Orokaiva. With the aid of some recorded myths, I shall try to show just how taro
571 is conceptualised, in what precise sense it is symbolic of 'hearth and home', and
121 specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish between two specific ritual statements that can be made with the aid of taro and show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

602 It is obvious that taro exchanges cannot make any essential change in the
431 relationship of members of the same corporate group. By definition, this
824 relationship is already determined by the rules of incorporation. Thus, two brothers do not become more intimate by exchanging taro. On the other hand, if the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

records of taro gifts made in Sivepe village, the number of gifts made and received averaged 2.5 daily, ranging from a minimum of 1.3 averaged by the household least involved in the exchange system, to a maximum of 4.1 averaged by the household that made and received the most frequent gifts during the period. Allowing for variations in size, age and personality characteristics in the various households, these figures present a fairly homogeneous picture of customary exchanges.

Most of the gifts were made within the village, though a small proportion went to relatives and good friends who visited the village or who were visited by members of the Sivepe community. The usual practice was for the woman to bring home with her from the garden not only the taro her household was to eat that night and the next morning, but also taro to be used for giving away. When the recipient was of the same village, the taro would be cooked and presented ready to eat. The presentation was hardly ever made by the husband and most frequently by the children who were sent over with the cooked food and gave it to the named recipient without any ceremony. When there was any ceremony about the gift at all, the housewife was the proper person to make the presentation.

If I inquired who was the donor of the food I was often given the name of the woman, but sometimes the name of her husband, especially if the recipient was one of the husband's close kinsmen. There was always the notion that the gift served to maintain a specific relationship which would be involving either the husband or the wife. Strictly speaking, by far the greater proportion of the gifts were thus made to consanguines rather than affines. But it is better to regard the household as an integrated unit in its relations with other households, as the spouses undoubtedly mostly discuss together to whom food should be given. Essentially, taro gifts mediate relationships between households rather than individuals.

The size of the gifts was constant and seemed to be approximately what one person would eat for a meal. If a household made a gift of several meals to another household, this would be described to me as several gifts, with specification of the names of individual recipients. Here again, there was a contrast between the strict form of the gift and its overall significance. Strictly it was food given by one person in household A to one person in household B. When the family sat down to eat, the person who received the gift taro would share it out to others in the household. Therefore one may say that the gift was, in its general effect, from one household to another, but in strict form, it was emphasised that the social relationship between households A and B was mediated by one person in each household whose relationship was especially close. Thus, I might be told that 'X' sent taro to his brother 'Y'. In fact, X's wife would give the taro to one of her children who would take it probably to Y's wife. Y's wife would give it to Y, saying it came from X. Y would then give everyone a piece of it. A single gift would thus mediate quite a number of bonds.

As the gifts were very frequent, it seems a hopeless enterprise to specify on what occasions they were made; at first I thought taro gifts were made without any reason. Nonetheless, it is useful to discuss briefly a series of instances when taro gifts are considered appropriate. Let us first list a few of the more formal occasions when the housewife herself would make the presentation:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use. In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 could not help noticing the connection between the reconciliation and the
628 simultaneous fear of sorcery to which I have already referred. But perhaps
721 neither historical explanation is necessary.
728 It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1).[4] The series starts, according to myth, with a state of primordial peace. This is followed by *isoro*, *peka*, *isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 The model applies not only to inter-village relations but to all social relations
602 in general, consanguineal and affinal relations included. Quarrels between
578 consanguines differ only in their relatively greater reluctance to resort to an
754 exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58—Analyst]

[TEXT CONTINUED ON PAGE 157]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

571 conflict, necessarily precede recourse to sorcery. It is believed, however, that
602 such relatives will not usually carry their resentment too far. As soon as the
518 afflicted person makes his apologies and shows himself ready to make a pig
754 sacrifice, such sorcery will normally case. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives
[431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

571 Prestations between affines have a similar explanation, though the pattern of
578 hostile action and retaliation between affines is somewhat different. The first
602 hostile action in the series tends to be the abduction of a woman for purposes of
583 marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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5 This interpretation of Orokaiva sorcery appears to be largely supported by Lawrence and Meggitt who argue that in societies with 'stable social organisation' (among which they count the Orokaiva), sorcery accusations act 'both as an important medium for expressing enmity and as an excuse for initiating warfare, which is ultimately the most effective means of relieving feelings of aggression' (1965: 17). The authors appear to believe that sorcery can be explained along psychological lines as fulfilling a need for channelling aggression (*ibid.* 18). I find it hard to see how the specific facts of sorcery behaviour (and especially the transactional patterns described in these pages) can be explained in terms of universal needs. Sorcery is only one of many substitutes for physical aggression and all these substitutes, in one way or another, serve to maintain a relationship of negative reciprocity.

Accusations of sorcery probably have a cognitive as well as an effective 'function', for they imply an explanation of misfortunes for which no natural cause is known. Furthermore, such accusations turn misfortune into an object of mediation in (negative) social exchange. The assumption is made that the misfortune will continue until the relationship with the sorcerer is basically changed, either by his defeat or by reconciliation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguna* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full-clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present. 614 824

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions. 582 [121]

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*. 582 583

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like. 583 602 578

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 602 578 led to serious quarrels, especially if the girl had been kept by her parents or brother for an exchange marriage. Usually, these quarrels were settled in due course upon payment of a suitable bridewealth and sometimes by a subsequent marriage for which the abductor's family provided the bride. Williams comments:

> The remarkable gestures of hostility against the husband's people which sometimes characterise Orokaiva marriage, i.e. the attempted dragging away of the bride by her people, the humiliation of the bridegroom, the damaging of his village and the bellicose demonstrations at the taking over of the *dorobu* (= bridewealth), all properly belong to the irregular methods of capture and elopement; they are the aftermath, the retaliation (1930: 149).

583 584 The third and fourth marriage forms distinguished by Williams are purchase (i.e. obtaining a wife in exchange for *dorobu*) and exchange (*mine*, i.e. an arrangement whereby two men each make a true or classificatory sister available to the other). It seems that Williams did not differentiate clearly between modes of obtaining a wife and modes of making a valid marriage contract. One might obtain a wife in a number of ways. Certainly, capture and abduction seem to have been the most frequent at one time, but there were also child betrothals; long-standing preferential arrangements between villages; romances leading to sister exchange and marriages to seal political alliances. There was the whole gamut between choices made by lovers without parental approval and choices (probably relatively less frequent) made by parental fiat. But there were only two ways of making a valid marriage contract, namely *dorobu* and *mine*. Williams himself comes very close to this view towards the end of his chapter on 'Marriage' (1930: Ch. IX). He also maintains, no doubt correctly, that in Orokaiva thought *mine* appears as the 'ideal', i.e. preferential, mode of contracting a marriage:

> It appears that marriage by exchange is preferable to marriage by purchase – at least in the eyes of the marriageable man, and probably also in the eyes of his elders who sympathise with his desires. We may perhaps go so far as to say that the actual buying of a wife only takes place when circumstances make present or future exchange impossible (1930: 149).

This seems to place Williams' theory firmly on the side of Guiart's theory of marriage in New Caledonia: exchange marriage becomes the preferential mode, the 'model', whereas marriage 'by purchase' is demoted to the status of an ecologically caused departure from the 'model'. In this chapter I shall argue that Williams' Orokaiva theory reifies the folk model and conceals some of the complexity of Orokaiva social structure.

4. *Elements of Restricted Exchange*

582 583 Marriage rules related to the principle of restricted exchange are actually more numerous than Williams supposed. They must be briefly reviewed before we can argue cogently that the principle of restricted exchange does not suffice to account for the rules governing the total Orokaiva marriage system. Williams was entirely right in supposing that the Orokaiva have preferential sister exchange

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and ecohomic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation off the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta dara fimbari*, i.e. marrying in the mother's village.

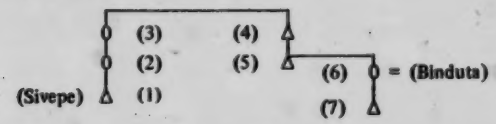
This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta dara fimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 Within the village, two different principles prevail according to the presence or absence of a generation difference. Where a generation difference exists, opposite sex linkages are always expressed in terms of address. A mother's brother is always called *epe*. The *epe/ahije* bond is based on mutual affection and voluntary support, whereas the *mama/meni* bond is based on strong mutual obligations and an authority/obedience relationship. On the other hand, collaterals of the same local clan group will never call each other *simbo* even though biologically they may be cross-cousins. They use sibling terms and are strictly bound by exogamy rules. In a multi-clan village, collaterals of different clans will sometimes use sibling, sometimes cross-cousin terminology. Here the criterion is whether the persons concerned shared a plant emblem (*hae*).

582 A rule that was expressed to me often and forcibly was that people should 614 not marry if they share a paternal or maternal *hae*. The relationship of a person 824 with his *hae* is one of complete identification. If a man says that his *hae* is *sasaha* grass, he means that *sasaha* grass is his 'ancestor' and that he himself *is sasaha* grass; i.e. he is completely identified with it. If two people are identified with the same plant in this way they are siblings; they cannot possibly be anything else.

601 In general therefore a *simbo* is someone with whom one does not share a *hae*. ●602 This rule obtains whether or not *ego* and *alter* live in the same village. A study of actual kin relationships between *simbo* in different villages bore this out. A typical *simbo* relationship would be between *fafasiso* children/*famobrososo*. The *fafasi's hae* would be transmitted to her son, but not to her son's children. The latter would therefore share no *hae* with the grandmother's natal family. Some *simbo* relationships are far more distant than the one quoted here. A typical example is the following:



Here the *simbo* relationship links families of two villages, Sivepe and Binduta. The genealogical pattern may be accounted for by extremely strong attachment between siblings of opposite sex (*du*), and for the tendency for this strong attachment to be reproduced in the next generation. The genealogical connection between *simbo* often passes between two or more of these *du* linkages. A person thus tends to have numerous *simbo* scattered in many villages with some of which has own village may never have intermarried. Even a limited amount of intermarriage between villages may set up a good number of *simbo* links between them, as the links of filiation and siblingship to which the genealogies refer are often merely classificatory. For instance, the individuals numbered (3) and (4) in the above diagram were not true but classificatory siblings.

It will be noticed that the *simbo* category can be defined only by a series of negative rules. It is a set of distant kinsmen which remains when positively

defined sets of consanguines have been excluded. Marriage with the *simbo* cannot therefore be regarded as following the principles of an 'elementary' system of kinship. In practice it does not take many generations before the intermarrying groups forming a 'reciprocating pair' are married out, i.e. unable to supply any further partners to each other. In Sivepe, Jegase and Seho, even with only seven current intermarriages out of sixteen households and a reciprocating relationship of less than three generations, seemed to have nearly exhausted all marital possibilities. The difficulties of my interpreter, a bachelor belonging to the Jegase clan, will serve as an example. He was not allowed to marry the girl he loved (Seho clan) because she was a classificatory mother's sister's daughter. But there would have been equally grave obstacles if he had wished to marry into four of the remaining six Seho households, as the girls of these households shared either his father's or his mother's *hae*. The rule prohibiting marriage with a person sharing a paternal or maternal *hae* has an interesting randomising effect that should be briefly discussed. At least forty-two *hae* were used in Sivepe. The persons sharing these *hae* were by no means always close relatives. They might be wives of Sivepe men, and born in a quite different village. Again, some people had many *hae*, four or five was quite common. In these circumstances the Orokaiva rule could never produce a stable system of four or more sections, as any section might at any time adopt a *hae* which would prevent marriage with another section. Furthermore, any portentous event, such as a woman falling to her death from a certain species of tree, would lead to the introduction of a new *hae* which might be adopted by several persons for reasons of sentiment or religious awe rather than the regulation of future marriages. Finally, individuals not infrequently transmitted maternal *hae* to their children, especially if they resided matrilocally or uxorilocally.

We conclude therefore that the rule of marriage with the *simbo* resembles a game of chance in which the odds become progressively more unfavourable, though the rate at which they become worse is itself determined by chance. In practice, therefore, every village played at many tables at once, not only because of ecological circumstances, vicissitudes of war and the need for alliances, but also because the rules of marriage themselves make no other strategy possible.

7. *Sex Affiliation*

It is an understood principle that under a system of restricted exchange the matrimonial destiny of brother and sister lies in the same kinship group whereas under generalised exchange it is different. Williams' data on the Koiari, as analysed by Lévi-Strauss, show that this tribe strongly emphasises difference of matrimonial destiny by the device of giving the brother a paternal and the sister a maternal clan name. Among the Orokaiva the principle of sex affiliation is likewise utilised, though far more feebly, to convey a simple message. The firmest evidence is found in kinship terminology and in the theory of paternity.

For the purpose of componential analysis of terms used in addressing affines, one dimension of contrast must be added to those given in the previous section. We shall distinguish sister exchange and *dorobu* marriages by the following code:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 *Min*: Sister exchange marriage. *Dor*: Marriage 'by purchase'. Under this code, we may define the following terms:

1. *Terms principally used for addressing consanguines*:

epe:	Ef	M	Sr	Gl	A
	M	Sr	Gl	A	Min
tata:	Ef	F	Sr	Gl	A
	F	Sr	Gl	A	Min
ahije:	F	Jr	Gl	A	
	Jr	Gl	A	Min	

2. *Exclusively affinal terms*

atovo:	Em	M	Sr	Gl	//	A	Dor	
imbohi:	Em	F	Sr	Gl	A	Dor		(Williams: *imboti*)
behere:	Em	SS	Gl	X	A	Dor		(Williams: *betere*)
dambo:	Em	SS	G–O	//	A			(Williams: *nabori*)
	Em	SS	G–O	X	A			(Williams: *betere*)
hovatu:	OS	G–O	A					
bi:	Ef	SS	G–O	A				
imi:	M	Jr	Gl	A	Dor			

601 The fact that a brother and sister, upon marriage, use different types of
602 affinal kinship terms corresponds to a fundamental difference in their social position in relation to their affinal family. The brother, under a *dorobu* marriage contract, remains a perpetual debtor to his affines. He has deprived them of their most precious possession, a nubile daughter, without giving a woman in exchange. Even though he has given bridewealth and done bride service, and continued making prestations of many kinds, these propitiatory offerings do not wipe out the debt. The *imi* must therefore always act with humility and feel shame when he meets his *atovo* and even more, his *imbohi*. His sister, however, is under no such burden in her relations with her own affines. Her position is precisely the same, whether the marriage has been established by *mine* or *dorobu*. Her use of consanguineal terminology expresses her far greater familiarity and identification.

[591] It might be argued that such familiarity and identification is the direct consequence of patrilocal virilocal residence, but such residence arrangements do not always lead to the terminological differences I have described. These differences, however, are consistent with an ideology which emphasises the detachment of women from their natal clans and their close attachment to their mother's village to which they are supposed to move upon marriage.

842 Such an ideology is further emphasised by the Orokaiva notions about
614 paternity. Orokaiva believe that a male child is formed in the womb as the result of sexual congress between father and mother, but that a female child is formed by 'the mother sleeping alone'. The male child therefore carries the 'blood' of the father, enabling the child to carry on the father's lineage, but the female child does not. She is still a member of the paternal clan but the connection is evidently viewed as social rather than physiological. Accordingly all females are named by their mother's consanguines, in contrast to males who may be named

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

582 reciprocal relationships which must collapse, due to the operation of the rules,
614 after a few generations. This collapse may either take the form of a separation
583 between the two groups or of a fusion into one local clan group. I have shown that the genesis of many Orokaiva local clan groups may be found in this process.

602 In the terms used in previous chapters one may categorise sister exchange and
583 the women exchanges in reciprocating pairs of groups as phases of cycles of
614 positive reciprocity. On the other hand, marriage by capture and elopement is a phase of a cycle of negative reciprocity. The long series of prestations offered by the bridegroom and the humiliations suffered by him have the effect of shifting the social relationship with the affinal group into a cycle of positive reciprocity. We therefore do not need to suppose that the bride is regarded as symbolically equivalent to *dorobu* as some African analogies might suggest. *Dorobu* is sufficiently explained as a magical device whereby a reversal in the mode of reciprocity (from negative to positive) is effected. The full range of gifts symbolises the wide scope of the resulting social relationship.

The theory assumes a profound dependence upon the affinal group. This dependence is in fact emphasised in many social, economic, political and religious situations. Ideally, an affinal relationship leads to the establishment of a pair of reciprocating groups. In the light of this understanding, it becomes clear that the exchanges analysed in the preceding chapters are consequences of the group relations set up by the marriage system. In chapter V, I showed the prevalence of a principle of dual allegiance resulting from the inheritance of land originally belonging to the mother's brother. I showed that a critical situation arises in the third generation when the uterine family does not renounce its residual rights but the social relations which give reality to these residual rights, viz. dual allegiance, becomes problematical.

583 The system would appear, indeed, to be so automatically productive of crises
614 that one might wonder how it could ever have been maintained. It becomes much easier to understand if we recognise that the daughter of the marriage is expected to marry in the mother's brother's village. The land can thus revert to the people of the original village by a series of two uterine transfers. The system looks a little like the 'rope' of the Mundugumor (Mead 1935), and the latter may well have a similar explanation. It has a clear political utility as the dual allegiance pattern forms the basis of Orokaiva political alliances. It is buttressed by religious beliefs, as the spirit of a male child may be derived from either an agnatic or a uterine ancestor, by the process of reincarnation to which I have already referred.

Ultimately there would appear to be two possible outcomes of such hereditary land gifts: fusion of the reciprocating pairs of groups into one local clan group and separation on more or less hostile terms. These two outcomes correspond to the two modalities of the marriage system. The hostile modality is not a *failure* of the system but a natural and accepted part of it. Thus, the frequent migration of groups, as evidenced in Sivepe and many parts of New Guinea, should not be regarded as purely adventitious, but is structurally determined as part of a system which, as we have seen, could not work over a long period with a static population.[4]

The frequent exchanges of cooked taro reported in Chapter VI tend to keep

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationsip to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

178 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [73] [62] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt. Lamington (see Secs b. and e. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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[1] Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

[2] Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterized as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third area (the Ope or Aiga), the village, consisting as it might of intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Minduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

(ii) Formal features of the local patrilineal groups. In discussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timuma group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 It is by virtue of such interpersonal ties, hardly less than by 602 shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, by these means, claims to inherit land are established in many [428] circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of different clans and of other villages hold a contiguous section [613] of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

[1] In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are
dissolved as gardens near the house revert to fallow (ibid:98;
Brown and Brookfield 1959:68). As they extended their cultivation
to other areas, 37 per cent of a sample of 193 men had moved from
one men's house to another over a period of 16 months (Brookfield
and Brown 1963:98) and the men's houses themselves last no longer
than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and
isolated. Father and son often have adjacent plots in one garden
area but the son usually has at least 1 other garden elsewhere.
A young married man often has 1 garden on the land of his wife's
father, whom he will periodically assist in his garden. Older
men in general adopt the technique of progressively planting and
clearing a single large area while younger and more active men,
usually with more obligations to affines, tend to cultivate
several scattered smaller plots.

[62] There is no local group or extended kinship group which
commonly combines to make a block of contiguous gardens. Even
[602] when all members of the village plant simultaneously for a special
feast, the gardens are not adjacent. A man usually takes advan-
tage of the choice of exercising planting rights on the land of a
wide range of kinsmen (not necessarily his agnates), both those
within the village and to a lesser extent kinsmen from other
villages. Several had current gardens on their mother's brother's
land, some on the nearby land of their wife's brother, sister's
husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their
land with them, but this is not a common practice at Sivepe. In
the few cases where several kinsmen have made adjacent gardens
the gardeners are mostly cognatic kin from different clans or
villages and each will probably make his next garden with differ-
ent kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
171 result in repeated changes of residence as it does among the
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[578] [1] The 3 instances of boundary disputes recorded were between
Bebehupa and Usohu people. According to the older men the Usohu
were formerly a Jegase group and they share many boundaries with
the Bebehupa; the recent split in Binduta between the 2 groups has
been accompanied by friction over a number of issues including the
definition of boundaries.

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Table 10:17

Givese: the major exchange relationships of selected individuals with their kin
(where the quantity exchanged exceeds 5 per cent of the total exchanged in at least one category)

Individual	Partner*		Transactions: Subsistence produce A	Subsistence produce D	Labour-subsistence sector A	Labour-subsistence sector D	Labour-cash sector A	Labour-cash sector D	Storebought goods A	Storebought goods D	Cash A	Cash D
I Linton			(lbs)		(hrs)		(hrs)		($)		($)	
Totals			1,910.6	840.3	234.0	79.0	67.8	10.3	11.51	3.92	23.85	17.00
	(a) Other households within the lineage within the village											
		Z	32.0	3.2	40.4	-	30.8	-	0.15	0.12	0.35	-
		F	-	33.0	2.7	-	16.6	-	-	-	-	-
		M	93.5	3.2	-	5.1	13.3	-	-	-	-	-
		D	23.0	8.5	35.1	-	-	-	0.05	-	-	-
	(b) Other households within the clan within the village											
	(c) Other households from other clans within the village											
		ZH	2.0	1.2	69.8	1.5	-	-	-	-	-	-
		MB	78.0	9.3	14.6	37.1	-	-	0.20	-	-	-
		WB	159.3	198.5	-	-	-	8.0	2.90	2.80	16.0	16.0
	Classificatory	MB	24.4	4.5	-	-	-	-	0.20	0.50	-	-
	"	MB	1.0	13.7	23.7	-	1.3	-	0.20	-	-	-
	"	FWB	-	73.1	7.8	6.7	-	2.3	0.10	0.50	-	-
	H of "	MBD	61.7	17.8	9.4	-	2.3	-	-	-	0.20	-
	(d) Other households outside the village											
		FFBS	3.0	55.2	3.2	18.8	-	-	3.03	-	4.30	-
	H of classificatory	FZ	435.0	-	4.0	-	-	-	-	-	-	-

437 produce, while the second results in sustained interaction with affines at the probable expense of agnates living elsewhere. The latent obligations to more distant kin are revealed on such occasions as an unexpected visit Palminus received from his father's [431] sister's son following the birth of Palminus' child. His embarrassment at not having previously advised the man of the birth was only compensated by his making an immediate gift of $2.

The facility with which kinship links can be drawn between most, if not all, of the villagers makes it difficult to identify significant, yet mutually exclusive, categories of exchange partners. Exchanges between two individuals might, for example, be variously interpreted as being between neighbours, affines or age-mates. The most important economic connection is between an individual's families of orientation and of procreation, where the two households are located adjacent to each other. Although each maintains separate gardens, between such linked households there is a substantial, if variable, degree of inter-dependence and the network of exchanges may incorporate three generations.

437 Other major exchange relationships operate with affines, matri-
561 lateral and patrilateral kin and are typically restricted to members
of the individual's age group, for example, cross-cousin, wife's
[602] brother and sister's husband. Such coeval links also extend to individuals with whom there is no apparent bond of kinship. Traditionally these links may have been restricted to fellow-initiates, who were of both sexes and stood in a defined relationship where [178] each referred to the others as nanamei.[1] Since the disappearance of initiation ceremonies the connection is now of a more informal nature, reflecting similarity of interests.

437 In effect, regular exchanges operate between members of one's
602 own generation, where partners may be drawn from a wide range of kinship categories and with other generations in the case of primary and secondary kin (see Table 10:18). Other large exchanges which fall outside this pattern are mostly of a specific nature and characterised by immediate reciprocation, as in the case of pigs and sago-making. There is only limited evidence to suggest that the movement of specific goods and services follows distinct patterns, although those relating to the external sector do move almost exclusively between primary kin. However, this fact cannot be considered to indicate a different attitude to the ideal of reciprocation on the part of those having direct access to cash crops and money. Where an individual's family of orientation renders assistance with processing coffee, it is normally without cash crops of its own and where remittances are received from sons,

[601] [1] Meaning 'my children', i.e. 'the children of whom I am one'. See Williams 1930:180.

Table 10:18

Diverse: the network of exchanges among kin
(derived from the data presented in Table 10:17)

		Total		Major exchanges*								
				By category								
				Linked households, other primary kin and dependent households			MBS/D, FZS/D, WB, ZH (incl. classificatory)			All other		
		Quantity	% of all exchanges	Quantity	%	No. of partners	Quantity	%	No. of partners	Quantity	%	No. of partners
Subsistence produce (lbs)	A	2,779.0	85	1,123.4	40	22	480.0	17	8	1,175.6	42	25
	D	2,270.0	60	1,172.2	52	21	291.7	13	7	806.1	36	31
Labour subsistence (hrs)	A	359.5	90	243.3	43	12	76.4	14	2	239.8	43	17
	D	151.8	88	95.2	63	5	17.0	11	2	39.6	26	5
Labour cash (hrs)	A	74.9	91	60.7	81	3	2.0	3	1	12.2	16	6
	D	16.3	83	6.0	37	1	8.0	49	1	2.3	14	1
Storebought goods ($)	A	17.05	76	3.46	20	11	2.92	17	2	10.67	63	11
	D	5.31	75	0.91	17	7	2.80	53	1	1.60	30	3
Cash ($)	A	28.85	80	2.35	10	2	16.00	67	1	5.50	23	3
	D	16.00	84	-	-	-	16.00	100	1	-	-	-

* Defined as where the quantity exchanged exceeds 5 per cent of the total in at least one category.

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brothers and husbands their dependents are normally being supported in the village.[1] Consequently, of the three categories of kin into which exchanges are grouped in Table 10:18, exchanges with the first (linked households, etc.) may be interpreted as expressing their degree of inter-dependence, with the second (cross-cousins, etc.) the intention of supporting alliances with members of other corporate groups, while only the third (all other) might be considered as a 'drain on resources' (in the sense of the goods and services not being reinvested for individual or group benefit). Nevertheless, most exchanges characterised by immediate reciprocation and equivalence fall in the last category and so, even in that case, the assumption is of questionable validity.

[1] Of the $166.30 received in the form of remittances, about two-thirds came from primary kin while about three-quarters came from individuals with dependents being supported in the village.

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 (614) (613) A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondatta road, the only vehicular road in the area.

The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

(i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

(iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

(continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

On the other hand, some feasts held today have no precise traditional equivalent. These include those associated with festivals of the local church; those to farewell or welcome home children attending distant schools, migrant workers and others; those to mark the opening of new churches, schools and medical aid posts; and finally and most recently, feasts or 'parties' to celebrate the birthdays of favoured children. 574 178

A birthday feast held in Inonda village in July 1962 illustrates changes taking place in some of the social and economic values of the community, and persistence in others. The celebration was held to mark the birthdays of the two adopted children (actually the illegitimate issue of two daughters) of a prominent local citizen, a retired mission teacher. It was the first such party held in this village, though similar parties had been held in neighbouring villages. Several villagers mentioned that they intended holding birthday parties for their first-born children. The idea was introduced by indigenous mission teachers who have attended birthday parties held by their European counterparts. 574 561 [111]

Few Orokaiva people are aware of the birth dates of their children and those few who are derive some satisfaction from the fact. In this instance, the children whose birthdays were being celebrated were a boy aged nine and a girl aged one. The party was said to be for both children, though 'mainly for the boy'. Their actual birthdays were said to have been 18 and 22 June respectively, but the feast was not held until the following Saturday as several of the villagers and many of those invited from outside the village work during the week as labourers for the Public Works Department, for a local engineering contractor and for local European planters. Almost all feasts and ceremonies conducted in this village today are held on Saturdays.

The host (the adopted father of the children) is not engaged in paid work and he and his wife, assisted by their three married daughters, spent the two preceding days gathering food from the gardens. Two of the daughters live in the same village as their father and the other in a village about six miles away. As all the host's male relatives in this village were employed at the time, he sent for his brother's grandson, a single man in a village about fifteen miles away, to come and assist. A small platform and a leaf shelter were built outside the host's house: the former to serve food on and the latter as shade for the visitors. 574 [343]

Taro was the main food provided, and of an estimated total contribution of 383 pounds, 128 pounds were brought by the host and his wife, 105 pounds by their three married daughters, 70 pounds by two clanswomen of the host's wife, and 80 pounds by three clanswomen of the host's eldest daughter's husband. 574 491 602

The two latter contributions require further explanation. Of the 70 pounds brought by the wife's kin, 40 pounds were given by a parallel cousin whose husband recognized a distant relationship to the host, and who had worked as a mission teacher with him. The remaining 30 pounds were given by a clanswoman (whose exact relationship we did not determine) who lives in a village a few minutes' walk away, and who frequently visits the host's wife. This woman's husband recognises a distant relationship to the host. Of that given by the daughter's husband's relatives, 60 pounds were contributed by a mother and daughter whose husband and father had spent his life as a work associate of the host in a neighbouring village. The remaining 20 pounds were brought by a clanswoman whose kinship link was reinforced by her residence in Inonda and her marriage to another relative of the host.

With the exception of taro supplied by the host and his wife jointly, all taro was brought by females. They were all kin of either the host, his wife or his eldest daughter's husband. But of the many relatives of these people resident in the vicinity, only five contributed. Three of these had work associations with the host and the other two had subsidiary kinship links to the wife as well as being coresident or nearly so, and enjoying frequent social interaction with the host and his wife.[1]

In former times, we were told, the men now engaged in paid work would have gone hunting to obtain meat for a feast, and would have constructed more elaborate shelters and platforms as well as erecting poles for the stacking of food contributions in such a way that they could be measured and compared. The role of the men in the preparation of this feast was negligible by comparison.

The host intended to kill a domestic pig for the feast but it escaped after being shot. A European contractor whose labourers had been invited to attend gave a pig which he had purchased for $30. The only other fresh meat was a large hornbill donated by the leader of the clan with which the eldest daughter's husband lived.[2] These two men have engaged in many exchanges over the past few years.

Of a total of $9.83 worth of store foods supplied, $2.60 worth were purchased by the host himself from his savings, $7.08 worth

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[1] In addition to the above food, the husband of a daughter of the host used the occasion to give a pig and vegetables to one of his wife's mother's clansmen who had not shared in the bride-wealth previously given by the husband for his wife. The gift was taken back to the donee clansman's village for distribution.

[2] This man does not live with his own clan, but with that of his classificatory brother's wife.

£2.90 by 16 relatives of the host's eldest daughter's husband (the one who had not been able to pay bride-wealth at the time of his marriage).[1] The latter 16 relatives came from four different villages. All but one of the total of 64 contributors of cash came from villages other than Inonda.

Contributors came from eight different localities within a range of 16 miles. There were also approximately 70 other adults who attended but did not eat or contribute. Some were from this village but the majority came from other villages in the vicinity. There were also some 30 or so children present who were not included above.

The majority of the persons present attended because of their residence in neighbouring communities and claimed no kinship links with the hosts. In earlier times, informants say, it would have been unusual for persons to attend a feast unless they were linked to the hosts by ties of kinship, marriage, or residence in the same village. Moreover, they claim, even in pre-war days it was unusual for persons from so far afield to attend a relatively small personal feast. Cash payment, it appears, is becoming an acceptable substitute for kinship links as a qualification to attend certain ceremonies.

Transfers of property at this feast differed markedly from those in feasts of the traditional type. Firstly, the food was contributed by a more restricted group, and was consumed not by all, but only by those who paid. Secondly, cash was given in place of traditional valuables (feather head-dresses, shells, arm-bands, necklaces, etc.); and thirdly, there was no reciprocal exchange for the whole of the cash was retained by the host who apparently does not acknowledge any obligation to give reciprocal help to those who brought cash, though he does recognize such an obligation to those who brought food.

In this village many of the older people wear only loin cloths made of tapa, but at the feast all but four men wore imported clothing. The four who did not were older men who remained in the shadows. A few men wore cotton lap-laps, but the majority wore short trousers. All but three wore shirts - an item of clothing that is rarely seen in the village. Quite a number wore plastic sandals, though the majority were barefooted. All the women wore cotton skirts and blouses, though in their daily work an in festivals of the traditional type they almost never wear any garment above the waist. Four young men were daubed with face powder and one wore a spring of leaves in his hair. There were no other personal adornments. At taro festivals today, and at marriages, funerals and

[1] See p.74.

583 [85] These people were expected to return a feast of similar size for the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 613 The economic consequences of the payment were greatest in four households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 614 This was not an ideal situation in which to investigate the extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 602 The range of genealogical connections between the groom and heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 621 Co-residence in a village may also have some influence. Some people, though not all, from each of Kakendetta, Hohota I, Hohota II and Urio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Hosou, Ajoro, Seva or Jegerata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

241 422 592 423 Later again, in line with an agricultural officer's recommendation, he encouraged each son to plant individually. He proposes that his gardens should be inherited by his sons jointly, with work and profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 24 464 [654] D has no younger brothers, but he did have a government loan (though it was not intended for hiring labour). With the loan and gross profits from his store (see p.11 ff.) he has hired a total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

[62] Since his attempts to engage permanent paid labour were not successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 654 The entrepreneurs have all benefited from assistance given by government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Gona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that
592 it may.

Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence
[366] derives from the land and social security from the fulfilment of obligatory ties which bring reciprocal returns in times of sickness,

463 old age or other need. The system was not geared toward capital
472 accumulation, nor was the bulk of material reward retained by the
man who made the effort. To achieve maximum economic efficiency a
602 modern entrepreneur must disengage himself to some extent from his
366 kinship obligations. As Table 9 shows, a number of the entrepreneurs studied have physically removed themselves from the village to live near their cash crops, or have built close to, but outside, their villages. Thus while the vast majority of Orokaiva people live within a village, most entrepreneurs among them do not, and all the most successful live outside their home villages.[1] Independence, however, may place the entrepreneur in a vulnerable position. He has reduced access to the security provided by traditional ties, reciprocal obligations and religious rites within the village community, and there are at present no alternative provisions for social security.

Table 9 suggests that there may possibly be advantages in trading away from one's own village and where one is not dependent on one's villagers as customers. All three traders within their own village have had little or no success, and all the most successful groups are outside or away from their home village.

Table 9

Location of store

Location	A	B	C	D	E	F	G	H*	I	J	K	L
Away from own village (i.e. own villagers not usual customers)	•			•				•	•			•
Close to but outside own village		•					•			•	•	
Within own village			•		•	•						

* H's village is to be shifted to the present location of his trade store. He resides within his own village.

[166] Half of the least successful traders were still living in the village of their birth, whereas 75 per cent of the traders in both groups II and III were not living in the village in which they were born.

463 Of the sixty-seven indigenes in the Northern District holding
472 trading licences, twenty-three are shown in the government records
366

[1] Likewise all four entrepreneurs studied by Crocombe (1967:5) lived outside their villages.

Even those entrepreneurs who engaged relatives were not in favour of doing so, and none hired unrelated members of the same village. The traditional complex of relationships within the village tends to undermine the authority of a local employer, and this makes it difficult for entrepreneurs to enforce their orders. Wherever possible, they hire workers whose contact with the village in which the crop or store is located is minimal. They are usually hired as short-term casual labour on cash crops and are rarely employed in the stores. The employer-employee relationship has no traditional precedent and entrepreneurs try to follow their conception of a European model.

463 472 466 464 571 402 [177]

Table 11

No. of co-operating adult male kin

A	1	E	4	I	2
B	1	F	1	J	2
C	3	G	4	K	3
D	4	H	2	L	3
Average	2.25		2.75		2.5

Table 12

Labour engaged by entrepreneurs to help with cash crops

463 472 464 466 465

Entrepreneur	Labour: Extended family or siblings — No.	Period	Payment	Non-relatives from same village	Non-relatives from different village — No.	Period	Payment
A	-			-	1 1	1 month 2 months	$3/month and food - do -
B	-			-	-		
C	3	occasional	50c per week	-	-		
D	4	6 months establishing	food	-	-		
E	4	occasional	food and clothing	-	4	establishment	$4 per fortnight
F	-	previous casual help	food, etc.	-	-		
G	4	occasional	store goods, food and pigs	-	-		
H	-			-	1 1	1 month 3 months	$4 per month
I	2	occasional	food and clothing	-	-		
J	1	regular	food, no cash yet	-	-		
K	2	occasional	food, etc.	-	1	occasional	$1.50 per fortnight
L	2	short period	$2.50 per week	used to employ 3, abandoned as unsatisfactory.	3	occasional	$2.50 per week

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
426 to pay for labour. They have not relied on kinship assistance at
657 all. The loan has been an effective substitute for kin ties. L derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
465 to pay hired labour, and are thus forced, willingly or not, to exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that the most successful entrepreneurs have the fewest cash crops. The
[426] largest cash croppers (A, D and H) have leases of government land
[429] and government development loans of $1,500, but even when they are
[657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	702
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	1,800
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

Table 19

Traders as at January 1966

463
472
444

	Group I	Group II	Group III
Economic variables			
Store turnover per month	-	under $50	over $50
Store outside village	75%	50%	100%
Average no. of economic trees	702	1,800	168
Traditional valuables	$31.51	$46.16	$7.50
Liquid assets	$37.32	$212.00*	$322.66*
Months of operation of store	19.5	17.75	7.25
Tools and equipment	$124.68	$177.75	$143.97
Loans received: land	50%	25%	-
store	25%	-	50%
Social variables			
Age	35.25	41.75	29
Index of education	26.7	3.75	46.7
Years of paid work	11.25	8.75	4
Non-traditional experience	16.75	10.25	11.75
Job: level 1 responsibility	-	25%	75%
level 2 responsibility	75%	50%	-
Community leadership	50%	75%	50%
More than one leadership position	-	50%	25%
No. of co-operating adult male kin	2.25	2.75	2.5
Size of present household	6.5	5.75	5.25
Eldest son	75%	25%	-
Residence village different from village of birth	50%	75%	75%

* No information on one subject in group.

The most successful traders had the smallest households, but used the help of co-operating kinsmen more than the least successful (whose present households were the largest) and less than group II (whose households were also large). The moderately successful traders depended most on the help of kinsmen, but not nearly so extensively as cash-cropping entrepreneurs previously studied (see Crocombe 1967). [592] [602]

571 against sickness, crop failure and other catastrophes. The mutual
602 obligation system which operates among kinsmen 'acts as a man's
182 trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A 1

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another
A [See Category 425--Analyst.]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

602 Kinship groups are of major importance in the functioning of village society in New
[619] Guinea. Every individual is a member not
[614] only of a parish but also of groups of closer
[613] kin, a clan, and maybe a lineage. Lacking any
602 system of payment in cash for services ren-
464 dered, the villager obtains the assistance of his
476 relatives for heavy work such as the felling of big trees to make a swidden, dragging a canoe log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides
602 social stability and in practice the pattern of
311 land use is frequently decided by the senior
241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

657 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout
[578] the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-
177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with [428] them. These affinal kinsmen thus acquired cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.7-A]

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a gift or, if asked, would lend land in return.

[431] [426] 226 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by the Yega to exist off their strip of coast; rights to fish over these reefs are held by the clans whose ancestors first discovered them. Any person who catches fish over a reef belonging to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowadays is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

226 423 614 [431] [109]

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

867 Children were trained by their parents in the prevalent system
869 of custom and belief, as modified by recent changes; they maintained
177 their traditional regard for their elders, not regarding their school knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly expected to help their kinsfolk, especially if their knowledge had
602 yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother. Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

In this essay, I shall present data on the friendship universe and show that Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

Between the districts where the data were collected, there are slight differences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

our concern is with the total *philia* universe. Meaningful contacts outside the village tend to be almost wholly with persons of the same generation. I shall therefore discuss the intra-generational terms of reference and address, both in the kin and friendship idioms, and both in the Sangara and Sasembata dialects.

The kinship idiom[7] (discussed in detail in Schwimmer, 1970a) contains four consanguinal and three affinal terms; an oversimplified analysis gives the following meanings (for an explanation of the symbols, see footnote 7):

apa SS Sen G-O //C	*simbo* G-O X C	*dambo* Me SS G-O A
eambo SS Jun G-O // C	*ivu* husband	*hovatu* OS G-O A
du OS G-O // C	*ae* wife	*bi* Fe SS G-O A

Affinal relations, according to explicit Orokaiva norms, are cold, formal, and distant though polite, and restrained by strict taboos. Affinal terminology always carries the connotation of obligation and avoidance, and it is never suitable for easy informal discourse. Indeed, when a person desires to keep up easy, informal relations with an affine (and this occasionally happens), his only resource is to maintain whatever term of address he used before the marriage.

All the consanguine terms, however, are regularly used in addressing unrelated persons with whom hereditary friendship links exist, at least in the Sasembata district. *Apa* and *eambo* are also used between men in the same context as the Maori use the term *hoa*; that is, informally and without any implication of kinship or permanent relationship. The wife of a fictional *apa* or *eambo* is called *du* (sibling of opposite sex), but never by an affinal term. The fictional *simbo* differs from the fictional sibling with regard to reciprocal rights and obligations, as will be shown below.

The following Orokaiva terms are used exclusively in a friendship context: *namei* (Sangara) or *apa/eambo* (Sasembata), designating a male friend of a male speaker in the same generation; *otavo* (Sangara and Sasembata) meaning a partner in trading or dancing, or a journey, or a war expedition – a

7 The following classificatory principles underlie the Orokaiva kinship system:
Consanguine (C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.
Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G-O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: Me: Male. Fe: Female.
Relative sex of ego and alter: SS: Same Sex. OS: Opposite Sex.
Relative sex in consanguineal linkages: //: Relationship is either wholly agnatic or wholly uterine. X: Relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite sex linkage.
Relative age of alter: Sen: Older. Jun: Younger.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Relationships of this sort are sometimes intertribal as women abducted by enemies were in the habit of maintaining contact with each other, and such contact was inherited by their sons and daughters. When men belong to an *otavo* relationship (see p. 67 below), their wives address each other as *jao*.

(c) *Simbo*. Outside the cooperative group, social relations (even with consanguines) are spoken of as voluntary. This applies especially to distant consanguines and non-resident consanguines. Thus, the kin category *simbo* must contain many members, if purely genealogical criteria are to be used. If two consanguines share no plant emblem and are related through siblings of the opposite sex, they fall within the *simbo* category (the term is not precisely equivalent to cross-cousins). There is no limit on kinship distance, and persons recognized as *simbo* may be cousins several times removed. Often, it is impossible to reconstruct the genealogical connection. Like Orokaiva kin links, this one is simply inherited from generation to generation (bilaterally, in this case).

As one cannot get informants to list more than ten or twelve *simbo* families dispersed in a number of villages, one must assume that *simbo* links, like those of hereditary friendship, are often forgotten. On the other hand, one may always rediscover a *simbo* while on a journey, so that there is a reservoir of unused links that can be revived. In general, however, a relationship can be relied upon only if it is kept alive by periodic contact.

The best translation of *simbo* would probably be: potential preferential marriage partner. While the primary meaning refers to a cross-sexual relationship, the male *simbo* have a special kind of bond which fits neither the cooperative nor the competitive exchange category. Literally, *simbo* is a marriage arrangement made when a girl has gone through the ceremony of menstrual seclusion and *kogumbari*,[8] but is not yet marriageable. Two aspects of the relationship between male *simbo* which are always stressed are the great love *simbo* have towards one another, and the rigorous taboo observances that are customary and strictly enforced.

The taboos resemble those practised between *dambo* (brothers-in-law); this is reasonable because if a man marries his female *simbo*, her brother becomes that man's *dambo*. The same taboos exist against mentioning the *simbo*'s name. All quarreling in the presence of a *simbo* is strictly forbidden. If a quarrel occurs nonetheless and *simbo* orders one to stop, one must obey or else pay a pig as compensation. If *simbo* touches any of one's possessions, one must give that object to *simbo*. A request made by *simbo* cannot be refused. This last rule about possessions and requests does not apply to *dambo*.

8 The term means decoration and is applied to face-painting, dressing the head with feathers, the wearing of shell and bone ornaments, armlets, fur arm pendants, and the like. A boy or girl is first decorated on the occasion of initiation. The dressing up is then usually done by an expert in the clan and paid for by the parents. For details see Williams, 1930; Schwimmer, 1970b, 1970c.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

602 The Orokaiva say that the *dambo* relation, although similar in many respects, is colder, more formal than the *simbo* relation. If a man dies in war, his *simbo* will die with him. The same intensity of feeling was not expressed about agnates. The feeling is the same where female *simbo* are concerned, except that "women cannot always do what men do." *Simbo* relations were especially important during the period of courting, war-like raids, and bravery in collecting war trophies.

602 572 The *simbo* relation resembles in many ways the kind of friendship described by Paine (this volume, pp. 117–37). There is a sense of worth having a *simbo* as a companion. The relationship is oriented towards what is regarded as the great things in life, principally love and war. It does not tolerate bargaining of any kind. It is not competitive exchange because *simbo* are not supposed to compete or exchange; it is not strictly cooperative either, as it does not bear the burdens of everyday obligations characteristic of the domestic unit. The taboos effectively separate *simbo* from each other on this everyday plane. In the mythical texts, we find an aspect of *simbo* [773] relations not stressed in ideology: in them, the *simbo* are forever playing nasty tricks on each other, depriving each other of benefits that are requested, and stealing each other's girls. But in such tales, virtue tends to win in the end. They form a charter, in Malinowski's sense, for the rules about *simbo* behaviour.

In the *philia* universe, *simbo* occupy a special position; namely a rejection or negation of both the cooperative and the competitive modes. The cooperative mode, taken by itself, leads to entropy; the competitive mode, taken by itself, leads to perpetual conflict. The *simbo* relation is a synthesis of the two, as is reasonable enough if one remembers it is symbolically equivalent to marriage, as analysed by Aristotle.

572 608 Fictive *simbo* bonds are sometimes created between non-kin who are engaged in an appropriate common enterprise and who desire to express their mutual warmth of feeling. Such a relationship gives friends a kind of explicit claim on each other's property and services. Because of the name [551] taboo which applies loosely in these non-kin bonds, *simbo* tend to address each other by special names known as *simbo* names.

For instance, one morning I was working on a task with a Papuan friend, when a visitor entered with a gift of eating bananas. My friend broke off a twin banana and shared it with me. "Now we are *be pije*" (banana men), he said, explaining that this was one of the *simbo* names most frequently used. If the two friends happen to find a twin areca nut, they become *be sa* (areca men); similarly one finds *be hinga* (pepper men) *be junga* (fig men) and so on. The relationship is extended to the wives of the fictive *simbo*, who become known as *ka pije*, *ka sa*, and so on. Thus, my wife became my friend's "banana girl." While such a relationship was not explicitly described as hereditary, it is easy to see how it can be transmitted from generation to generation.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 The rejection of both the cooperative and the competitive relationship applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a 602 fruit is a ritual that is sometimes performed between a married couple; for 608 example, when the community has decided to hold a feast. It symbolizes [824] that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in [439] which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 Similarly, feasting occasions between villages often result in *otavo* rela- 574 tions. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 For the present argument, it suffices to note that the term *otavo*, which neither implies nor denies the existence of a kin relation, designates an aspect of Papuan social exchange to which previous anthropologists have given most attention. As we have seen, the *otavo* represents only one of three modalities of Orokaiva partnership and the other two can in no way be reduced to it. Even the *otavo* relation is not solely concerned with extrinsic benefits, as a partner is singled out for personal qualities over and above the value of the objects exchanged. The Orokaiva, unlike other New Guinean tribes (for example, Pospisil's [1964] Kapauku) favour diffuse relations for all transactions.

CONCLUSIONS

602 572 I have shown that Orokaiva have a *philia* system comprising distinctive kin and non-kin membership categories. The *philia* system was found to contain three basic types of relationships: the cooperative alliance, the reciprocating partnership and unions based on a total interdependence of parts.[9] The chart below shows these types represented by the same-generation consanguines and affines among kin and, corresponding fairly closely, among friends.

	Kinship	Friendship
cooperative alliance	*apa/eambo*	*apa/eambo* (*namei*), *jao*
reciprocating partnership	*apa/eambo* (nominal); *dambo*	*otavo*
total interdependence of parts	*simbo*; *ivu/ae*	*simbo*

The fact that these three relationships are found in both categories suggest that friendship can hardly be regarded as a type of relationship with specific role attributes. Characteristics such as detachment from home entanglement, common commitment, perilous causes, reckless mutual support, strong emotional attachment to one another which are all implied in Paine's sketch of modern friendship (this volume, pp. 117–37) and in the Orokaiva *simbo* relationship, do not exist in other Orokaiva friendships such as those between *namei*, *jao*, or *otavo*. The Orokaiva distinctions between the different types of friends have no parallel in Western culture, but they reflect a clear

9 I borrow from Burridge (1969) the term "parts" which is pleasantly ambiguous, suggesting both roles in the theatrical and sociological sense, and moieties or segments in social organization. Burridge does not explicitly set up a third category of relationships containing terms such as husband/wife and *simbo*, but rather describes an "ideal" of relationships when a full equivalence of prestations (*mngwotngwotiki*) is achieved. This state of equivalence must be reached by two families before they enter into a marital union. The notion of "total interdependence of parts" (see Schwimmer, 1970b; 1970c) is clearly of the same type.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 602 grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the [601] partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

[182] The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

[177] [609] This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

121 If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

phasis on the "logic of the concrete," is equally insistent on precision in matters of material culture, because in the analysis of symbols it often happens that important distinctions are made between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the northern district of Papua, where I did fieldwork for one year in 1966–1967 and for another three months in 1970.[1] The Orokaiva live on the fertile slopes of Mount Lamington. They are swidden agriculturists, whose main crop is taro, while yam, sweet potato, sago, sugar cane, coconut, and numerous other nuts, as well as latterly German taro are subsidiary crops. Areca grows in most of the district. The population of 25,000 is very dense on the actual slopes of the volcano, sparser in the riverine areas. The kinship system is patrilineal, with a strong bilateral emphasis. I have given a detailed description of the various forms of

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*sivo*). A man

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. [778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out among the Orokaiva. [266] Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.A

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

only permissive rights at Inonda or any nearby place. He has been living at Inonda for some years on a temporary basis and is dependent for gardening land on his relatives by marriage at Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

Informants claimed that a man in need has the right to make gardens on the land of the mother's brother though this is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

Hunting and foraging rights: Any primary member of the Andiriha and Jego'undi sub-clans in Inonda can hunt or forage on any portion of the Inonda land which is covered with virgin bush, kunai grass, or second growth. Likewise any villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

571 But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

571 Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the ● 604 pattern of competitive exchange. An example of what this implies would be 881 the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

602 How can we explain that, at least in Sasembata, the Orokaiva classify 572 guest friends with the sibling group (by applying the terms *apa/eambo* to 171 them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

431 Secondly, the custom of classifying guest friends with siblings is not 437 general among Orokaiva; the Sangara use the term *namei*. Furthermore, 572 terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would [576] be considered wrong to press claims on the basis of such gifts. On the other [626] hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject [558] of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

5: Schwimmer E-4,5 (1966-1967) 1973
QJ23 Orokaiva QJ23
Mountain Orokaiva

his family are a necessary part of the process of assuaging the affinal family's anger. However, such one-sided payments do not in themselves set up a social relationship between affines among the Orokaiva. During this whole first phase of the marriage, the strictest affinal taboos are maintained, prohibiting, for instance, commensality between son-in-law and parents-in-law and their close kin. For social relations to begin, it is necessary for the bride's mother to rear a pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too 'ashamed' of the humiliations he has been through and of the anger shown to him for social relations to be possible. This sacrifice, too, has therefore an element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him).

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964.

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

583 *dorobu* items are: pigs, taro, pots, bark cloth, feathers and bone and shell ornaments. To this we may add, for modern marriages, money. The pigs are sacrificed and not used for breeding. The pots and bark cloths are kept by the bride or distributed in her family but are not, as a rule, applied towards a future *dorobu*. Feathers and ornaments are kept by the various recipients who use them, may give them away or trade them at their convenience, but there is no fixed practice of applying them especially for *dorobu*. There is no circuit in which wives move in one direction, and *dorobu* in the opposite direction. When a *dorobu* marriage is afoot the prospective bridegroom, the members of his paternal and maternal *hae* and, to a minor extent, other members of his clan, will amass the goods that are necessary. Pigs are specially bred, taro may be specially grown. Birds are hunted for feathers. Trade goods are assembled for the acquisition of ornaments. In modern times, the prospective bridegroom seeks employment to obtain money. If the bride's brother happens to be collecting bridewealth at the time of the wedding, his own task may be facilitated, but he is still expected to show his prowess by going through the same operations as his brother-in-law.

583 606 The difference between African and Papuan practice is basically that *lobola* cattle are preserved whereas *dorobu* pigs are sacrificed. Though we are right in supposing *dorobu* to be a set of gift exchange objects, it would be misleading to say that *dorobu* is exchanged for a woman. I have collected detailed information (as yet unpublished) about the symbolic meaning of the transfer of the objects included in *dorobu*. This formation is inconsistent with the theory that these objects are regarded as equivalent to a bride. Also, the especially aggressive behaviour of the bride's parents towards their new *iml* is hard to explain on the assumption that *dorobu* is in any way a symbolic equivalent of the bride.

The main recurrent theme of all informant's statements about *dorobu* marriage is the anger of the bride's parents. This anger is more than a mere psychological state: it is a basic part of the institution. The degree of anger may vary from one case to the next according to the amount of animosity that is felt towards the *iml's* village, family and person. If there is any hint of a breach of the exogamy rules it will be very great; if the *iml's* local clan group has a claim on a wife from the bride's village, the anger may be much less. But some degree of anger is expected in any *dorobu* marriage.

Dorobu is fundamentally a payment for anger.[3] When my interpreter wished to marry a classificatory *mosida* her father, after first refusing outright, finally set a brideprice at a rate more than four times as high as had ever been paid in the village. This was out of the question and my interpreter left the village soon afterwards. People told me this price showed the measure of the man's anger. A similar line of explanation was followed when I asked informants the meaning of the strict rules of avoidance practised towards affines. I asked: 'Why do you behave in this way? Don't you like your *imboh*?' The reply was: 'I love her very much because it was she who gave me my wife. But I feel ashamed because I shall never be able to repay her.'

431 583 It is possible, from the evidence of rites and myths, to reconstruct the significance of the various gifts that compose *dorobu*. Summarising the results of such a reconstruction, I suggest that the gifts of taro and pig both re-enact a sacrifice in primal time where a man, identified respectively with taro and pig, is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

000 2. E. G. and J. D. Krige describe a particularly clear example (1943: Ch. IX; 1939) among the Lovedu.

583 3. I discussed in Chapter VII the Orokaiva device of using anger for the
606 mediation of social relations. Monica Wilson has described a somewhat similar
578 mechanism for the Nyakusa (1952: 99–112; 1959: 161, 165, 217). Among the Orokaiva, however, two opposite tendencies are at work: the obligation to express at once the anger one feels and the offender's obligation to assuage that anger (whether justified or not). Much Orokaiva exchange involves prestations made by one party to compensate for anger felt by the other.
While 'anger in the heart' is disapproved by Orokaiva, most actual misfortunes are explained by anger existing in someone else's heart. The guilty person is deemed to be he who, though aware of his anger, does nothing to remove it. It is most often the victim of the angry person's retribution who is expected to feel guilty. One may show anger by harming one*self*. Such action, while overtly non-aggressive, is in fact a threatening signal to the causer of the anger.

000 4. A similar discovery was made by Watson (1970) in a paper based on New Guinea Highlands data, entitled 'Society as Organised Flow'.

current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third area (the Ope or Aiga), the village, consisting as it might of intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

(ii) Formal features of the local patrilineal groups. In discussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timunu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

425 f. Local organisation and land transfers

(i) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:123 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

514 In pre-European times, according to present-day informants, the most important feasts held by the Orokaiva people were associated with initiation, marriage, death (though apparently not birth), and the enhancement of prestige. Feasts were also held to mark the transfer of land, the re-establishment of peace between persons who had been quarrelling, resumption of residence after a prolonged absence, and the lifting of prohibitions between a man and his mother-in-law.

514 178 It is impossible to know with any certainty the scale of feasting prior to European contact for, though a detailed study of these people was made in the late 1920s (Williams 1928 and 1930). Government patrols had brought tribal fighting to a halt some years before. It is therefore quite likely that, with less time taken up in warfare and greater freedom of movement assured, the feasts and ceremonies of that day were more elaborate than those of the pre-contact era.

While feasts are still held today, the relative emphasis given to each category has changed considerably. Feasts associated with initiation are held on a greatly reduced scale and often omitted altogether, but those relating to marriage and death remain important. The taro festivals, the main function of which appears to have been the enhancement of prestige, are still held in some places but have been abandoned in others. The other feasts listed above are still held occasionally, with the exception of those relating to the lifting of prohibitions in relation to mothers-in-law.[1]

[606]

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[1] Since the above was written, such a feast was held by a family from this village but now living on a government resettlement scheme about two miles away. The atypical circumstances of the new residence pattern may have caused the revival of the feast (known as peikari) because when the daughter of the settler married, the new husband was brought to live with them to help with cash cropping. This is contrary to the customary pattern of virilocal residence. Living in such close contact with his mother-in-law probably made the highly formalized relations between them difficult to maintain. The feast was thus invoked to sanction more relaxed relations between them.

[591]

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

592 Informants told me of one rule regarding household composition which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do n.t like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working forwages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)[A]

592 My own impression is that the normal household is composed of a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by
[589] themselves, even if they have no young children living with them and do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

25. Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

602 The Orokaiva say that the *dambo* relation, although similar in many respects, is colder, more formal than the *simbo* relation. If a man dies in war, his *simbo* will die with him. The same intensity of feeling was not expressed about agnates. The feeling is the same where female *simbo* are concerned, except that "women cannot always do what men do." *Simbo* relations were especially important during the period of courting, war-like raids, and bravery in collecting war trophies.

602 572 The *simbo* relation resembles in many ways the kind of friendship described by Paine (this volume, pp. 117–37). There is a sense of worth having a *simbo* as a companion. The relationship is oriented towards what is regarded as the great things in life, principally love and war. It does not tolerate bargaining of any kind. It is not competitive exchange because *simbo* are not supposed to compete or exchange; it is not strictly cooperative either, as it does not bear the burdens of everyday obligations characteristic of the domestic unit. The taboos effectively separate *simbo* from each other on this everyday plane. In the mythical texts, we find an aspect of *simbo* [793] relations not stressed in ideology: in them, the *simbo* are forever playing nasty tricks on each other, depriving each other of benefits that are requested, and stealing each other's girls. But in such tales, virtue tends to win in the end. They form a charter, in Malinowski's sense, for the rules about *simbo* behaviour.

In the *philia* universe, *simbo* occupy a special position; namely a rejection or negation of both the cooperative and the competitive modes. The cooperative mode, taken by itself, leads to entropy; the competitive mode, taken by itself, leads to perpetual conflict. The *simbo* relation is a synthesis of the two, as is reasonable enough if one remembers it is symbolically equivalent to marriage, as analysed by Aristotle.

572 Fictive *simbo* bonds are sometimes created between non-kin who are engaged in an appropriate common enterprise and who desire to express 608 their mutual warmth of feeling. Such a relationship gives friends a kind of explicit claim on each other's property and services. Because of the name [551] taboo which applies loosely in these non-kin bonds, *simbo* tend to address each other by special names known as *simbo* names.

For instance, one morning I was working on a task with a Papuan friend, when a visitor entered with a gift of eating bananas. My friend broke off a twin banana and shared it with me. "Now we are *be pije*" (banana men), he said, explaining that this was one of the *simbo* names most frequently used. If the two friends happen to find a twin areca nut, they become *be sa* (areca men); similarly one finds *be hinga* (pepper men) *be junga* (fig men) and so on. The relationship is extended to the wives of the fictive *simbo*, who become known as *ka pije*, *ka sa*, and so on. Thus, my wife became my friend's "banana girl." While such a relationship was not explicitly described as hereditary, it is easy to see how it can be transmitted from generation to generation.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 The rejection of both the cooperative and the competitive relationship
602 applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a
608 fruit is a ritual that is sometimes performed between a married couple; for
[824] example, when the community has decided to hold a feast. It symbolizes that the partners become one. But a twin fruit is not completely one; from another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in [439] which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 Similarly, feasting occasions between villages often result in *otavo* rela-
574 tions. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusmale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

officer, observing the offending houses, might charge the "committee" with dereliction of duty. This could not be taken lightly as some years earlier, in the days of the village constables, a negligent constable might find himself deposed and even jailed. (How frequently this actually happened I do not know, but the fear was still there.) The situation seems essentially ambiguous: willing cooperation and compulsion are both present.

As may be expected, contacts between Orokaiva and taupa are perceived totally differently by both parties. The European has two kinds of concept foreign to the Orokaiva, namely the concept of a formal organisation by which long-term fiduciary relationships can be established on an affectively neutral basis; and the concept of welfare objectives pursued by these organisations on the basis of universalistic values. The Orokaiva had no difficulty in trusting a European to fulfill fiduciary obligations if he had a close personal relationship with him, and likewise he would expect such a European to have an interest in his welfare, but as I have shown, such closeness was extremely rare in Sivepe. It was just unthinkable, to the Orokaiva, that an official casually visiting the village was truly interested in their welfare, because the Orokaiva could not see any reason why such an official should have such an interest. Clearly, the official was thought to come in the pursuit of his own, or his organisation's advantage. The patrol officer came to punish people who did not obey the law. I was told by informants that it did not greatly matter what one said to him as long as it stopped him from punishing people. The same was true, in one way or another, for most taupa, except some of those one knew well.

All men and women of Sivepe were asked what Europeans they knew or had known; the answers to this question were especially interesting because of the omissions. None of the persons listed in this section as being in contact with Sivepe people were ever mentioned--not even the head teacher and his wife. Anthropologists who had been in the village earlier were mentioned by many men and women, past employers were mentioned if the job was in the employer's home or if both employer and employee lived on the premises (e.g., in a hospital). The other contacts were left unmentioned, not because informants were uncooperative, but because these contacts did not fall within any of their categories of social intercourse. If I had asked specifically: "Has any European ever weighed your vegetables?", predictably some vegetable-weighers would have been listed, assuming that their names were remembered.

The relationships at Ilimo camp form a striking contrast to this general picture. This was obvious at once in the interviews as the name of, for instance, Mr. Kaad, is remembered by everybody, as are also a few other names, though less widely. There was hardly an informant who had been to Ilimo and who did not report, in one context or another, the activities of Mr. Kaad. Never once was he referred to in the accounts as "the taupa" or "the officer." When I interviewed Mr. Kaad in Sydney, he likewise felt that the kind of relationships between

CHAPTER V: Familiarity with New Homeland

In spite of the pax Australiana, Orokaiva still view with some apprehension visits to villages of traditional enemies, if friendship has not been explicitly established between visitors and host village. In 1951, this feeling of apprehension was even stronger than today. I was told that in pre-contact times a man would be extremely rash to visit a village where he was unknown as he might well be killed. Even then, however, it was sufficient protection if a visitor was able to ask by name for a kinsman or friend resident in that village. This person would then take the visitor under his protection and he would come to no harm in the host village.

A story about a football match held in Sangara shortly before the eruption demonstrates the dangers that existed even then. A Sangara team had visited a village in the Gona district and had defeated its hosts at football. On the way back home, a member of the team fell ill and died from blood poisoning. The Sangara people attributed the death to sorcery by the defeated village. When shortly afterwards this village visited Sangara to play the return match, the Sangara came to the football field armed with hidden knives, guns and pineapple clubs, intending to kill their guests. A bloodbath was avoided only by a thunderstorm during which the match was cancelled.

In these circumstances, it is understandable that the Sangara and Isivita people were unhappy about their evacuation to camps in the coastal region after the eruption. It was not, of course, the specific instance just quoted that made them uneasy but a general apprehension of danger. Certainly, deaths and illness occurring in these camps were very liable to be ascribed to sorcery. This is no doubt one reason why the government lost no time in closing the coastal camps down and bringing the inhabitants back inland, placing them in temporary accommodation in Popondetta end April, even before permanent resettlement villages for Sangara could be planned.

The camp at Ilimo did not create the same kind of worry, as Orokaiva has no reason to fear sorcery on the part of the Ilimo people. The Sivepa people feared no harm from Ilimo because two Sivepa families had friendly and kinship relations there, while there was no history of hostility between the two places. Ilimo, furthermore, was near some European plantations where people of Sasembata district at times found employment. While the Sivepa people were in the camp, they were on visiting terms with the village people. It is important to realise that the pivot of the friendly relations between these two villages were a small number of individuals who were linked by formal bonds. Of the two bonds, one was affinal while the other was a friendship bond based on contact between a Sivepa plantation worker and Ilimo village people.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

10 I am using "form" and "content" in the same sense as Levi-Strauss (1958).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all [768] these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His [627] father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures '*ne relèvent pas des structures élémentaires*' (*ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and
[428] Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

614 Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

614 824 The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting [773] access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants [553] of plants, but that the ancestor was a man bearing the name of that plant. Clan and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

614 824 To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging [582] and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and ● [611] mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*. In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] common patrilineal descent from a usually eponymous ancestor; they do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localised group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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[1] This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

[2] Data from Awala and Wasida villages (see Williams 0.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

[3] Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

C13 C23 individuals by creating and fulfilling obligations independently of other members of the descent group.

(iv) Landholding by the local patrilineal groups. After a closer look at landholding by the lineage, we will comment first on non-agnatic and adoptive relationships in connection with land acquisition and then on the interests in affiliation to the dispersed clan branch as a group associated with a territory.

In the instances recorded of title to subdivisions of a lineage's land having descended in 2 or more separate lines we refer to the landholders as members of distinct 'genealogical branches' of the lineage, even if the landholders are parallel cousins. The type of lineage we describe, however, is not characterized by regular internal structure, for often it is not easy to distinguish lineage from kinship in terms of function.

[71] [61] It is as true of the mountain Orokaiva as it is of most New Guinea Highland societies that

> the principle of recruitment to a man's father's group operates, but only concurrently with other principles and is sanctioned not by an appeal to the notion of descent as such but by reference to the obligations of kinsfolk, differentiated according to relationship and encompassed within a span of only two or three generations.
>
> (Barnes 1962:6)

C13 The solidarity of the current relationships between the males of the lineage can be regarded as a function of the closeness of the ties of agnatic kinship, real or adoptive but of close degree, which among the Jegase and Timumu[1] are effectively reduced to a lineal relationship between, at the most, 3 generations of householders. The strength of the readily noticeable identification of the lineage with an estate distinct from the land of the rest of the dispersed clan branch can be seen as a measure of the interdependence between these close agnates.

A lineage such as those in our sample is the largest group whose members co-ordinate their gardening activities to exploit land associated with it. But against this must be set the independence often exercised by individual lineage members, who, in consolidating other ties of their own, acquire and dispose of short-term landrights. Perhaps some individuals co-ordinate their activities with non-agnatic kin, affines and friends as much as with members of their own group.

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[1] Excepting the Bebehupa: all but 1 of its members (see b6) are descendants either of its oldest surviving man or of his father's brother.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which
trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[592] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

13: Hogbin OJ23 Orokaiva OJ23

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[For additional information on lineage, clan, and village role in a bridewealth transaction, see Category 583.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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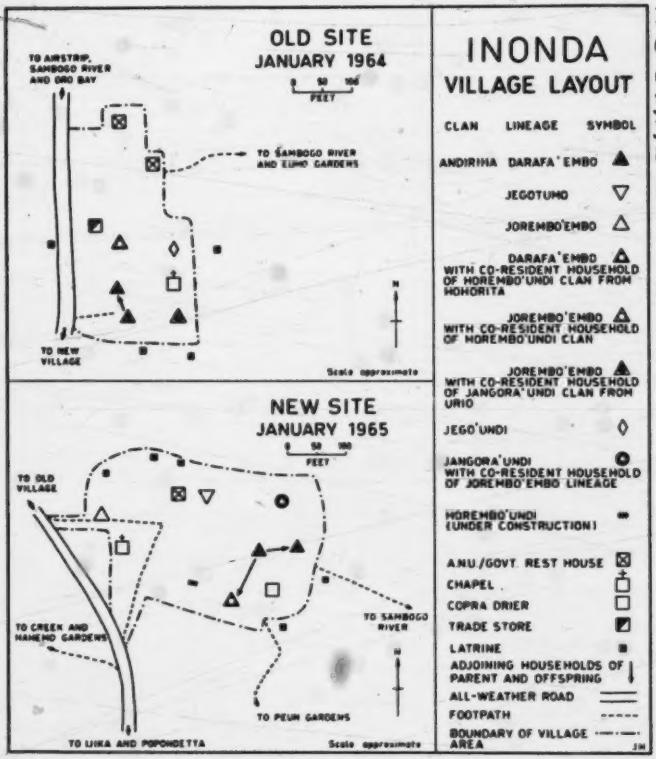

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will not accept the decision of the *enda mama* has no option but to leave the village and forfeit his patrimony.

Economically, the *enda mama* is theoretically in full control of all products of the soil and of all resources owned by his family. He also has full control over the allocation of land to family members and others, with the proviso that his sons, if any, should get at least 'half' of the land when he dies.

In summary, the religious, political and economic attributes of the extended family enable us to describe it undoubtedly as a corporate group. It has to be recognised, however, that the parcels of land controlled by this corporation vary considerably from generation to generation. A corporation will shed parcels which are permanently vested in other lineages, and will obtain new parcels from uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin (1963) have all treated this land corporation as comprising a 'lineage', so that it may seem idiosyncratic that I am calling it an 'extended family'. My reason for changing the description is that I was unable to find any case of an extended family lacking an *enda mama*. There are, of course, lineages comprising more than one extended family, but in such cases one finds more than one *enda mama*. Crocombe and Hogbin, faced with this phenomenon, added the term 'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small sample contains no case of a 'sub-lineage' comprising more than one extended family. In these circumstances we may well delay discussion of the range of control of the *enda mama* until we examine patrilineal ideology in Chapter X.

We notice, however, an apparent conflict between patrilineal ideology and practice. According to the ideology, an Orokaiva patrimony is passed on from an *enda mama* to his successor; there is no rule for splitting up the patrimony between the sons of a deceased *enda mama*. How does it come about, then, that every extended family has its own *enda mama*? The process is easy to describe. It is customary for an *enda mama* to allocate land to all married men of his extended family on a more or less permanent basis. He has the right to change these allocations when special circumstances arise but changes do not occur often. As the *enda mama* becomes older, and less able to make his own gardens, he tends to distribute more and more plots, either to his sons or to other persons of his choice. Though the patrimony remains undivided in theory, in practice it is being divided. In this subdivision, the rights of brothers are supposed to be equal regardless of seniority.

When the older brother dies, the position of *enda mama* passes to the younger brother. The sons of the elder brother then retain no rights of succession and will depend for their well-being on the new *enda mama*, their uncle, who often adopts them if they are young. If the younger brother dies, and there are no other brothers left, the younger brother's eldest son becomes *enda mama*. The custom in such cases seems to be that the portion of the original patrimony set aside for the elder brother should go to the sons of the elder brother; the portion set aside for the younger brother should go to the sons of the latter. Theoretically the eldest son of the younger brother would be *enda mama* over the entire original patrimony but in practice a gradual splitting up would be inevitable. Orokaiva do not easily accept the authority of their cousins or adoptive brothers.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

596 In any case, there are no strong economic or political reasons to prevent the
428 splitting of the patrimony. Nor are there religious reasons, because every married
[775] male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

596 Informants were all agreed that at any time either the *enda mama* or the
578 junior member of a land-holding corporation may opt out of the relationship:
593 such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

596 When such separations occur within a three-generation extended family, they
613 are regarded by the community as (minor) misfortunes. On the other hand, they
423 are regarded as normal when they occur between first cousins in a four- or
571 five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

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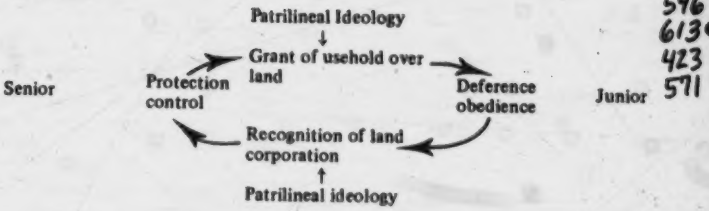
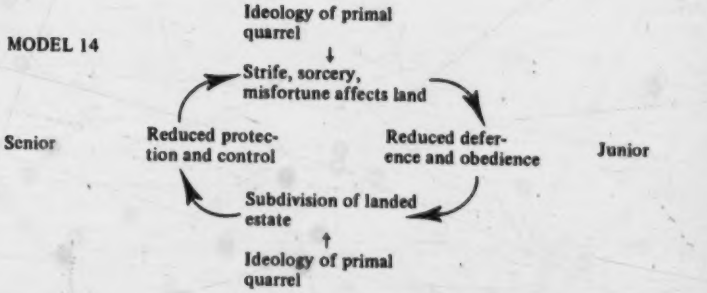
MODEL 13

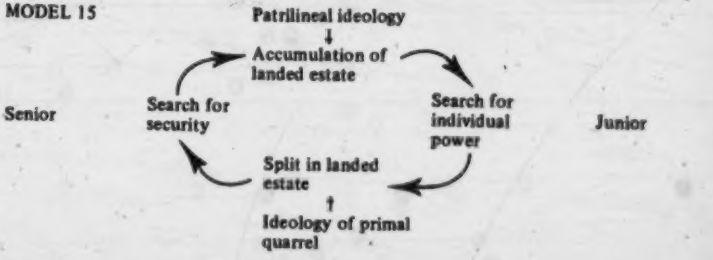


MODEL 14



Models 13 and 14, when considered together, represent two phases of the history of a family. In the first phase a man who has separated out, aided by his sons, establishes his own landed estate. Gradually, he adds to his estate in various ways (conquest, inheritance from maternal relatives, etc.) and he adds to the number of adherents to whom he is *enda mama*. Before two generations have elapsed, the estate thus established will probably be subdivided again. The process of incorporation and subdivision repeats itself *ad infinitum*, and may be expressed in the following cycle:

MODEL 15



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

613 Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which [428] patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

596 428 The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

423 425 [428] The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

423 425 613 614 The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

423 425 583 [593] [582] Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and
[423] Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

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614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Horton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesevopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 [103] [128] All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinasusu or Korinaturu. For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 [428] All land constituting territory of the Jegase, Timumu or others in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. [B]

A, [See Category 428, p. 111--Analyst] B, [See Category 102, p 40--Analyst]

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

In about 50 years preceding the establishment of their present
166 village the groups now represented in Sivepe had between them
361 been involved in shifts of residence between a series of 14
177 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in
[C21] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(i) Migration 1900-50. The Bebahupa moved from Simbehata to Korogombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Nahihita nearby.

[G57] In 1950 the Administration instructed the Bebahupa of Korinasusu and Nahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2.

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

166 the Jegase people had no land on the Awala-Kendata road nearby,
361 where they decided to build, they acquired rights to house-sites
613 on the road on the land of the Be'ohuahije[1] in return for rights
[425] granted to some members of that clan to build on Jegase land 3
[731] miles away at Awala No.1. The Jegase people had begun to move to the new village, now Binduta, when Mt Lamington erupted. Although they were outside the limits of the area of destruction the people were evacuated for safety.

The Sesewopa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepe had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sohu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

[682] The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timunu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohuahije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepe (d3J). This man's son is the third Berekipa household head (e2J).

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[1] The Be'ohuahije formerly lived in the nearby villages of Saunhambo and Hehereta and their land adjoins Sivepe village.

[2] See Genealogy, p.52. A A

[3] For relationship between namesakes (tato) see Williams 1930:96.

[4] See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A, [See Category 601, p. 52--Analysis]

166 361 613 Neither the man nor his son has every cultivated his patrimonial land at Hamburata although they hunt and fish there. The man makes these periodic visits to affirm his rights as he claims that constant surveillance is necessary to forestall encroachment on his land. His father's brother controls the land in his absence.

By 1930 the members of the Berekipa households who numbered 12 had thus acquired only 5 parcels of land (totalling 9 acres) near Sivepe since the lineage returned from Hamburata 30 years before, and had to rely on other lineages for access to adequate land. [657] After the war the Berekipa were asked by the Administration to move from Pusahambo to a village called Pamba where Arehu lineage was living. They seem to have been largely dependent on the Arehu and on affines elsewhere for planting rights since then.

The Arehu people had founded Totogata next to Simbehata and remained there after the other Jegase people had moved on to Euru and Korogombata. Some members of Bebehupa lineage, in refusing to recognise Arehu as a genuine Jegase lineage, explain that it is an immigrant group descended from a Togahau man of Arehu clan[1] who was adopted as a child after a Jegase raid on the Togahau. The land the group now holds is centred on Simbehata and the Bebehupa, although they take little interest in it, allege that it was acquired when the Jegase man from Simbehata was killed at Divinikovari. The Arehu have retained and strengthened their rights over the years and to all effects have become absorbed into the local branch of the clan, extending their effective ties there by intermarrying with other lineages. When pressed, the only resident male (d4J) even answers questions about the position ascribed to him as one of the agnates in the local group by [578] stressing that he and his father married Jegase women, as if no more need be said. The grandson of the alleged original landholder has disputed the rights of the Arehu man to the parcel of land on which the old village Simbehata was situated.

[657] Several years after the ancestors of the Bebehupa left Simbehata the Arehu were told by a government officer to amalgamate with other Jegase people and with the members of Timumu and Seho clans from Euru and Asina. The village formed on Seho land was old Sivepe with its satellite, Pamba; most of the people stayed there until they fled the Mt Lamington eruption in January 1951.

The Pekuma and Hajejopa lineages of Timumu clan had both joined the Jegase and Seho people in founding old Sivepe. The fathers

[1] This clan today is represented in Sirembi village in Togahau Census Division and possibly in other villages there. In 1923 Williams (O.1) noted that they were also present in the villages of Pororí and Ohamba.

[TEXT CONTINUED ON PAGE 45]

166 of the 2 senior men of Sivepe had divided their allegiance between
36 branches of the clan at Euru and Soroputa and had exercised rights
●613 to land near both places. Since the death of his father the Pekuma man (d1T) has lived first in Euru and then Sivepe with his mother's kin and later his wife's kin. He and his adopted son (e1T) hold 28 acres nearby but he has never cultivated the land his father used at Soroputa; he sometimes obtains the permission of his father's brother to collect the produce from trees his father planted (see p.24).A

About the time the older Hajejopa man (d15T) established his household at Euru, he was involved in a dispute with his father's kin from Soroputa who wanted him to return or else relinquish his rights to the land his father had cultivated there before settling permanently at Euru. Like the Pekuma man he preferred to settle on the comparatively large landholdings (18 acres) near Sivepe and severed most connections with Soroputa.

73 (ii) Changes following the 1951 eruption. Sivepe-Pamba and
36 Binduta were a few miles outside the area destroyed by the major eruption. Referring to the population of these marginal areas Keesing (1951:3) says that 'after the first panic of scattering... local groupings were in the main able to reassemble in the regional camps with such official aid as was necessary'. Refugees from the west side of the mountain were collected from emergency encampments along the Kokoda road and taken to a regional camp first at Wairope and then at Ilimo near the Kumusi River. The villages of the Jegase and Timumu were included in the danger zone which was defined about 4 months after the first eruption. They were about 7 miles from the summit and the danger area extended for 8 to 12 miles around the active crater.

When the limits of the zone were determined about 3,000 people whose villages were not closed off or who could find kinsmen to live with in resettlement areas outside the zone left the refugee camps. Most of the 2,000 who remained for some time at Ilimo were from the villages such as Sivepe on the more fertile land higher up the west and north-west slopes. Members of our sample however left to live with clansmen or other kin at Awala No.2 on the main [578] road. In the chain of fairly continuous settlements which grew along the road great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among leaders from different local and kin groups.

Most of these villages were still partially dependent on emergency rations issued to them while breaking in new gardens. Some of the Jegase people in Awala had their own small pockets of land nearby where they planted emergency crops and foraged; some made excursions during the day into the closed area to collect

A, [See Category 428, p.24--Analyst]

food from their abandoned gardens which they found in good condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

It was not long, however, before the Timumu people became involved in a protracted dispute with members of Kongahambo village (a new resettlement concentration near Sasembata), over garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

Meanwhile the Bebehupa had returned after the eruption to Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

(iii) The distribution of other clan branches. One Jegase clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Nahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third area (the Ope or Aiga), the village, consisting as it might of intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

(ii) Formal features of the local patrilineal groups. In discussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timumu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

614 wider grouping of Jegase clansmen in the neighbourhood, which we
613 describe as the 'dispersed clan branch'. This consists of the reputed descendants of Jegase men said to have once occupied together the settlement Simbehata-Totopata on the territory since associated with the group. It now has its largest single nucleus at Sivepe but includes also the Bebehupa men scattered in other villages, who recently separated from other members of the lineage now at Sivepe.[1]

Several writers have described one order or another of localized patrilineal groups in this census division as lineages (Belshaw 1951:2; Reay 1953:115; Norton 1962:3); in calling the Sivepe groups lineages, we have maintained some consistency with the terminology used for their formal counterparts in the survey at Inonda.[2]

Each lineage in our sample at Sivepe retains a name said to have been transmitted from some remote patrilineal ancestor and each shares a distinctive plant emblem, erahu, associated with its identity as an agnatic group (see Appendix D).[A] Williams (1925:410) notes that the erahu of matrilateral kin is used by householders to mark their distinctive personal identity within their patrilineal group.

The adult male membership of lineages represented in the sample, excluding absentees who have moved from the neighbourhood, ranges from 1 (Arehu lineage) to 9 in the case of the Bebehupa members of the dispersed clan branch. Members of each group trace precise genealogical relationships to one another. All the Bebehupa men with one possible exception can do so. Genealogical memory is short. Ancestry can be traced back to men of the generation of

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[1] We should emphasize that the 'clan branch' and 'dispersed clan branch' are not groups at different levels of a hierarchical lineage structure and that the distinction is a device for discussing the Jegase groups in question.

[2] At Sivepe we found that the use of the term ahije (or haije) was
608 not restricted to reference to the founder of a lineage as at
184 Inonda (Crocombe and Hogbin 1963:17). Any members of Jegase clan are called Jegasetahije and the founder of the clan is also their ahije. Moreover, the term may be used in another sense both to refer to any of ego's male cognatic ancestors or to denote any (or all) of a man's immediate cognatic descendants. Similarly epihe, said by Norton to refer to a lineage seems to be used rather for ego's maternal uncle or grandfather, paternal grandfather, etc., epimane (pl.) being a term for a number of these kinsmen, not for a number of lineages or a clan. Unlike ahije, this term is not used for descending generations too.

A,[See Category 613, p. 110--Analyst]

613 the father's father of the oldest members of the dispersed clan
614 branch but the specific kinship relationships between these ancestors are forgotten.

The Jegase people do not name a putative founder of the dispersed clan branch. Nor do they assume that the eponymous ancestors of its subgroups were brothers. The single site of settlement of the ancestors of Jegase men in this neighbourhood is their only recognized evidence of common origin. But this focus of their common identity still offsets the more recent attenuation of intra-group relationships owing to dispersal. The lineages emerge as contrasted co-ordinate group-segments because their histories have diverged since they jointly occupied one territorial centre. There is no fiction of opposition between segments in genealogical terms.

Informants sometimes indicated a sense in which certain lineages are considered closer to each other than to the rest of the dispersed clan branch. This type of alignment seemed to be associated with a joint historical identification of these lineages with a part of their group's territory. It is possible that this in turn is due to a closer patrilineal connection now forgotten, but the people do not venture on this type of explanation.

(iii) Authority and land control in the descent group. Anthropologists have remarked on the indeterminate system of leadership in Orokaiva villages and descent groups and the lack of formal sanctions for authority, and government officials have found that continued lack of emerging leaders impedes the planning [622] of local government and village reforms. Williams discusses the 'absence of central authority' (1930:325) and the 'entire lack of any ceremony of chieftainship' (W.23): he points out (1930:104) that the titles for 'big men' (embo peni, embo dombo) imply only that they are 'men of importance who cannot claim to be leaders'.

[888] There was however, a recognized ascendancy of old men. The 'leader and ruler of any clan' was said to be the eldest of its men provided he was equal to the minimal requirements of the position and 'only in the larger clans, where there are well-defined family groups, does the question of hereditary succession appear, and then it is a somewhat faint appearance' (1928:125) - but only if the large clans are localized, for he says that where 'the clan is scattered, there is no single leadership' (1925:407). [622] On the other hand Reay (1953:115) says that 'the embo kiti, whom F.E. Williams called a "clan headman", but who is really more of a village headman whose position is hereditary within a certain lineage of the clan, has a limited authority which is backed by no sanctions' (embo kiti: first man).

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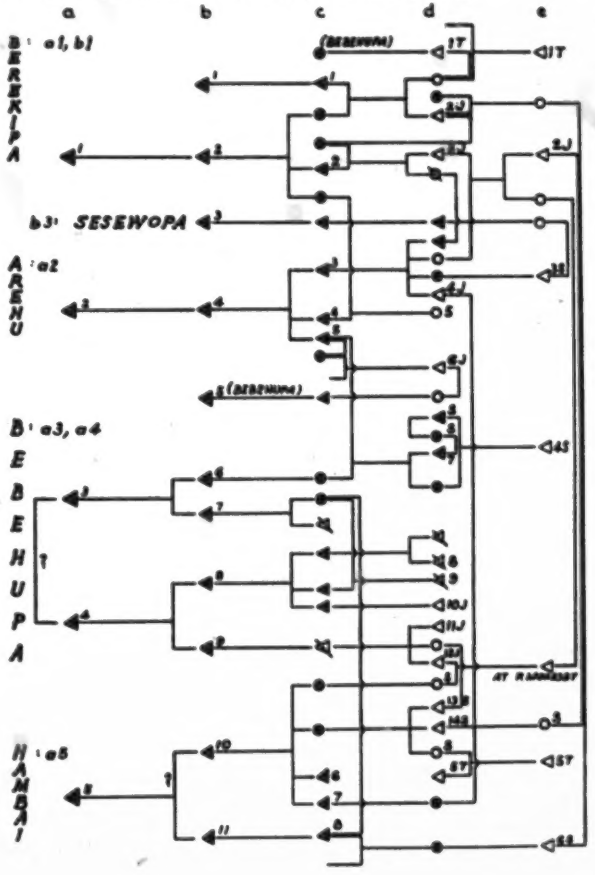
A GENEALOGY OF THE SAMPLE

△ Adult male at Sivepa ○ Female ◀ Deceased ✕ Resident of nearby village. Significant non-agnatic kin ties are shown. The numeral and generation of the known ancestor of each Jegase lineage are shown beside the initial of its name. A suffix to numeral identifies Jegase (J) and Timumu (T) householders. Saho members are denoted by S (preceded by a numeral for Sivepa householders)



G24 Residential units created for administrative purposes seldom had a single focus of allegiance. In the case of Sivepe, the officials appointed by the government in separate villages were thrown together in one village and were later replaced by the local government councillor.

In the mixed post-eruption settlements too, Keesing (1951:9-11) noted conflicting authority between men of different descent groups. Leadership had to be bureaucratically imposed and 'there were no signs of a self-motivated [political] superstructure taking form other than the strengthening of scattered clan ties'.

●613 557 Varying definitions have been given of corporate descent groups whose representatives might be said to have legitimate control of land among the mountain Orokaiva: Norton (1962:2-7) describes the embo dombo as a man 'who by virtue of being the senior member of a lineage and by having a superior knowledge of land matters, is regarded as the chief authority in the lineage', and says that the composition of the land controlling group varies from 1 or a number of lineages within the clan to the entire clan. [614] There are said to be as many embo dombo in a landholding group as there are lineages yet he later maintains that

> in each 'clan' a male member, by virtue of his age, his seniority in a descent group and knowledge of the land, has a recognized authority over any matters affecting the activities of the clan of which he is a member and particularly on land affairs. There may be one such man in a 'clan' or a number and he is known as the Embo Dombo.

Norton suggests that every male member of the controlling group is an enda mamo (master of the land), and that the term has sometimes been incorrectly identified with a 'chief land holder'.

Belshaw (1951:2-3) states that the 'minor lineage', constituting all or part of a 'hamlet', shares land and works it together. But particular members 'through their slightly different relationship connections sometimes have senior claims to different areas of land' and a member is enda mamo only insofar as the group is currently cultivating the land to which he has senior claim.

G24 614 Plant (1951: Appendix 2) diverges more from Norton's definition of enda mamo saying that there is one man with this title who is guardian and administrator of land, which is vested in the clan. Although these powers in land matters are more continuous and wider in scope than Belshaw maintains, Plant explicitly distinguishes them from the status of embo (peni) dombo (clan headman). He narrows them further to residual rights to make decisions, in council with clan members, on important matters concerning any of the areas which sections (or segments) of the clan in different

624 614 villages and individual members of these groups have come to regard as their own, since 'usage tacitly becomes ownership'.[1]

Horton's use of enda mamo seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepe exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mamo or Horton attributes to the embo dombo.

[425 428] Among our recorded cases of land falling without direct lineal heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organisation is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebehupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 50 years.

613 624 [554 614] He retains prestige and influence in many matters of concern to his own lineage. He can claim prominence among more close agnates than a leading man of any other lineage in our sample, even though the Bebehupa have now dispersed from Binduta to Garombi, Nahihita, Kakita, Awala and Sivepe. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Horton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

613 624 Actually no power has been delegated by the leader of their lineage. They are de facto custodians to the extent that circumstances had forced them to leave their original village and each selected a place to settle convenient to one of the areas where he could exercise individual rights to patrimonial or other land. They could at the same time protect the interests of other members with landholdings nearby. Although they refer to this trust as Bebehupa land, the reciprocal obligations seem to have followed on a mutual agreement reached by particular individuals.

It is however in this group that the councillor still expects to exert most influence in the discussion of general affairs. Within it he has a recognized standing as the largest landholder. On this account his opinion and knowledge of the locality are respected also by Jegase men of other lineages. Besides, they share many boundaries with other Bebehupa men and with members of Binduta and Awala villages among whom he could conveniently serve as a representative of their interests, having closer ties with these villages than they.

Otherwise his powers outside the affairs of the dispersed Jegase lineage are related to his position as councillor. He and another councillor were elected by Sivepe, Binduta and Awala villagers before he left Binduta and attached himself to Sivepe. In this capacity he receives no more support from other Jegase men in Sivepe than from the rest of the village. In 1963 a young man of another Jegase lineage there, with considerable support from voters within Sivepe, was a rival candidate for councillor for the 3 villages but was unsuccessful.

613 614 423 We have so far discussed only the powers of Bebehupa men, either in their lineage or in the clan branch. The other Jegase men enjoy rights of land control which are even more limited. The proprietary rights now held by each householder of the Berekipa-Arehu part of the clan branch were acquired by him independently of the others. Although there is frequent interchange of planting rights and consequent discussion among them as to the allocation of their resources none of the 4 could claim of right an equal voice in the control of the others' land. Again, each of the 2 Timumu lineages had settled independently in the neighbourhood of Sivepe by acquiring land from sources inaccessible to the other.

Associated with the weakness of central control over land of smaller groups on clan branch territory is the complete freedom each landholder has in granting usufructuary rights, provided due consideration is given to the anticipated physical needs of any joint heir (i.e., a sibling) or of any dependents for whom he is responsible. Each thus maintains relationships with other

C13 423 individuals by creating and fulfilling obligations independently of other members of the descent group.

(iv) Landholding by the local patrilineal groups. After a closer look at landholding by the lineage, we will comment first on non-agnatic and adoptive relationships in connection with land acquisition and then on the interests in affiliation to the dispersed clan branch as a group associated with a territory.

In the instances recorded of title to subdivisions of a lineage's land having descended in 2 or more separate lines we refer to the landholders as members of distinct 'genealogical branches' of the lineage, even if the landholders are parallel cousins. The type of lineage we describe, however, is not characterized by regular internal structure, for often it is not easy to distinguish lineage from kinship in terms of function.

[17] [611] It is as true of the mountain Orokaiva as it is of most New Guinea Highland societies that

> the principle of recruitment to a man's father's group operates, but only concurrently with other principles and is sanctioned not by an appeal to the notion of descent as such but by reference to the obligations of kinsfolk, differentiated according to relationship and encompassed within a span of only two or three generations.
>
> (Barnes 1962:6)

C13 The solidarity of the current relationships between the males of the lineage can be regarded as a function of the closeness of the ties of agnatic kinship, real or adoptive but of close degree, which among the Jegase and Timumu[1] are effectively reduced to a lineal relationship between, at the most, 3 generations of householders. The strength of the readily noticeable identification of the lineage with an estate distinct from the land of the rest of the dispersed clan branch can be seen as a measure of the interdependence between these close agnates.

A lineage such as those in our sample is the largest group whose members co-ordinate their gardening activities to exploit land associated with it. But against this must be set the independence often exercised by individual lineage members, who, in consolidating other ties of their own, acquire and dispose of short-term landrights. Perhaps some individuals co-ordinate their activities with non-agnatic kin, affines and friends as much as with members of their own group.

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[1] Excepting the Bebehupa: all but 1 of its members (see b6) are descendants either of its oldest surviving man or of his father's brother.

613 It is characteristic of the lineage that some mutual consideration is given by its members to each other's immediate expectations. This would appear consistent with the fact that it is only within the lineage that there is mutual anticipation among agnates that their land is the assured and exclusive patrimony of junior members.

Even members of a lineage with no single local nucleus in neighbourhood villages may be more closely associated in the tenure of land than are a large number of agnates living in one village but representing several different lineages. The Sivepe Bebehupa hold contiguous subdivisions of far fewer blocks of land with their co-resident agnates than they share with Bebehupa members living elsewhere, but considerably more than the Bebehupa outside Sivepe share with the other lineages. The dispersed Bebehupa claim that their members recognize certain exclusive though minor land rights and obligations (see p.55-6).

The members of a lineage do not trace an exact relationship with the group's founder but they attempt to reckon descent from the ancestor who is believed to have established their rights to lineage land. These rights were established in various ways.

The Bebehupa assert that the ancestors they are able to name acquired by right of original settlement the large share of Jegase territory occupied continuously by their descendants. On the other hand, when the Berekipa and Arehu tell of ways an ancestor gained control of parcels they now hold, the only common element which emerges is acquisition by reactivating rights once held by patrilineal ancestors.

614 No land is shared by the clan branch as a whole. With no significant areas of rainforest[1] or grassland in the area, all land has been claimed long ago as gardening land by lineages of various clans. There are considerable differences in the land areas available per head of population to the representatives of each age and their dependents in our sample. These areas are:

Bebehupa (18 persons), 64.1 acres, 3.6 acres per head)
Arehu (3 persons), 14.9 acres, 5.0 acres per head) Jegase
Berekipa (12 persons), 12.7 acres, 1.1 acres per head)
Sasewopa (1 person, not included in sample) 3.8 acres)

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1 The large area north of Sivepe covered by rainforest in 1953 (see Map 1) is land held by Soroputa villagers. Before Mt Lamington erupted, there were only 3 small villages (Soroputajajemo, Togorisusu and Handarisusu) in the area between Sivepe and Agenahambo. These 3 villages of the Soroputa 'district' were in 1953 almost certainly still at the post-eruption settlement named Soroputa. Most immigrants to this village had not decided to return to their land nearer the volcano by 1956.

A. [See Category 102, p.8--Analyst]

597 rights he has already received from his natal group before he may acquire proprietary rights and become a permanent member of the adoptive group. He may transmit the former rights to his sons, themselves full members of the new group.

As long as he stays with this group and land is not in short supply he may inherit an equal share with his adoptive father's [425] children. All rights are relinquished if he returns permanently to his natal group. If the land held by the adoptive group is scarce and extensively used by its members, he may become a permanent member of this group without acquiring rights to its land, especially if he was not previously related to the group or if he has access to other land.

An adoptee can continue to exercise his rights to land of his father if it is nearby but it may be difficult for him to retain land which is too far away to cultivate often and, unless he has close kin there protecting his interests, his rights and group identification tend to be contested.

The way rights are established by adoption, as with rights acquired by other processes, cannot be predicted far in advance for the actual rearrangment of proprietary rights in any particular case will be determined by the current relations between the parties involved.

425 By way of example, one man born into Ato clan is living with
597 his wife's lineage, Bebehupa (of Jegase clan). He has no other close kin and Awala is the nearest place of residence of any member of his natal clan; he is widely and consistently spoken of as a Jegase man (dóJ). When his father, a member of Heherita village, was accidentally killed when trying to mediate in a violent dispute between his clansman and Jegase people, his mother married a man of Arehu lineage. He was never given rights to plant on his foster father's land because it was under heavy use but he inherited some land near the Jegase holdings from his father. His wife also inherited land from her father, a Bebehupa man, who had no sons or brothers, and he has sometimes cultivated that.

However, due to serious illness, he is not active in the social and political affairs of his foster father's and affines' local descent group. As he is in a dependent and marginal social position and can use land of his own, his intermittent efforts to cultivate the Bebehupa land are not warmly welcomed by the leader of this lineage, regardless of the stated intentions of both the adoptee and his wife, a childless couple, to pass the land which each inherited to the sons of the Bebehupa leader.

● 613 In practice there are no land rights and obligations which the
614 different Jegase lineages recognize toward each other as members

613 of the dispersed clan branch and the only effective rights held in
614 common by the Jegase members of Sivepe are those shared by members of the village as a whole (see p.22). A A

[423] In land matters, as in other affairs, the closeness of personal ties between specific individuals in the Jegase group is usually of more account than shared membership of the dispersed clan branch - whether or not these interpersonal connections are agnatic: the dispersed clan branch is not exogamous and no preference is expressed for marrying out. In fact the 3 lineages, Bebehupa, Arehu and Berekipa, have been linked by several marriages in recent generations. In many circumstances the resulting network of cognatic and affinal ties is more important than lineal ties in determining what decisions are made or what action is taken.[1]

When the land of another local lineage of the clan is used for gardening, the usufructuary rights are granted and exercised more often because the landholder and gardener have a personal kinship relationship than because they are neighbouring clansmen.

614 The web of interpersonal kinship is, of course, not confined to the local agnatic group but pervades relationships between the clan branches in this and other villages in the neighbourhood, as indicated by the data on the range of Sivepe marriages and on the complex ties which either spouse (or both) is often found to have in the village where the couple reside. For several decades a constantly changing network of cognatic and affinal ties has linked members of a number of kin groups who have continually grouped and regrouped themselves as local units like Sivepe and its forerunners.

The dispersed clan branch is a significant reference group in
[613] land matters even though it has no land held in common by all members. Responses to initial enquiries about land rights of members of patrilineal groups always indicated that the Jegase lineages together in some contexts consider themselves to be one unit which is distinguished from the branches of other clans represented in Sivepe and other villages. It is not easy to discern the real interests which this response reflects.

The dispersed branch of a clan is the most enduring group which is acknowledged by all to be associated with a particular territory; a person's affiliation to this group is the standard rationale of his presence in the village and neighbourhood in which he lives and works. Ultimately the general basis for the tenure by any group within the dispersed clan branch, of its own share of land

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[1] We noticed that the importance of non-agnatic ties is sometimes reflected in choices in the use of kinship terms.

A. [See Category 423, p.22--Analyst]

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 602 It is by virtue of such interpersonal ties, hardly less than by shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, [428] by these means, claims to inherit land are established in many circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample A (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of different clans and of other villages hold a contiguous section [613] of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

[1] In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

A. [See Category 601, p. 52--Analyst]

614 clan branch claim that in the years before contact Jegase men extended their control over areas of land northward from this area toward the territory of the hostile Togahau and Divinikovari. They claim that this expansion was restricted by pressure from enemies but it is difficult to determine how often open conflicts preceded settlement in these outlying areas or how much it was limited rather by expansion of descent groups within the tribe or of other local groups.

The pattern of fragmented landholdings of local clan branches is said to be due to the fact that members of allied clans would move into an area of unoccupied land about the same time to clear contiguous areas. Any descent group which later found its holding no longer adequate for immediate needs and wished to open up new land would often find the surrounding land already settled and would move to the edge of the area so far appropriated as gardening land by the members of these groups. The explanation sometimes given for the existence of an enclave of one clan branch's land within another's is that a Jegase man, for instance, had lived with the Seho people holding the larger area and had cleared virgin land near them.

[476] The men exploiting new land often worked in association with some of their co-resident clansmen but the apparent lack of regular co-operation between members of patrilineal groups larger than the expanded family in opening up unoccupied land may account for some of the present scattering of clan branch land or even of the areas occupied by separate branches of 1 clan.[1]

[425] Informants stated that the initiative in establishing rights to previously unoccupied land was taken by individual cultivators and that the land which they acquired was retained by their lineal descendants.

[613] Some people suggested in answer to our questions that subdivision and further fragmentation of areas of Jegase territory, now identified with one or other of the lineages, occurred where large numbers in successive generations settled within, and made more extensive use of, one after another of the areas where an ancestor had been first to claim land or had at some stage effectively occupied it.

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[1] Norton (1962:6) gives a similar explanation of fragmentation and suggests that it occurred more often after the extension of administration control when the co-operation between members of separate clans formerly residing together for mutual protection was carried over into the activity of opening up areas further afield from their village.

613 Overall the land of Berekipa lineage is more fragmented, though less scattered than the holdings of the Bebehupa, which are larger.

From detailed accounts of completed land transfers between the Berekipa and Arehu, whose present holdings are mostly interspersed[1] near the sites of Simbehata and Pusahambo, and from other historical data we infer that this land previously formed far more continuous tracts belonging to descent groups such as these. To a noticeable extent the spatial relations between the shares of the Bebehupa, Berekipa and Arehu in the extended tract of Jegase land marked by the sites of former settlement can be construed as a teritorial correlate of the pattern of each lineage's ancestors' migrations to or from local groups there. The shifts of residence relevant today are remembered in some detail.

e. Land use and mobility

241 Williams (1928:156) advocated a change from shifting to sedentary agriculture for the Orokaiva on the grounds that the former was wasteful of land and labour, and that the tendency to form small independent settlements resulted from the 'lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site'. He considered shifting agriculture to be 'one of the most potent causes of village and clan disintegration'.

[36] Keesing (1951:8) noted that the mountain Orokaiva had generally resisted the post-war movement to consolidate into larger villages. So long as the 'mobile economic base' persisted, he considered that resettlement into larger permanent villages after the Mt Lamington eruption would be unlikely to succeed. The Orokaiva showed no inclination to adopt more intensive sedentary cultivation and he predicted that a return to shifting agriculture would involve 'seasonal movement' outward from the environs of the settlements to new cultivation areas, and later the resumption of settlement in scattered hamlets. In view of these assertions about the connection between agricultural practice and settlement patterns, upon which Williams and Keesing based their discussion of economic development, it may be useful to examine the relations in Sivepe between mobility and village stability on the one hand, and traditional land use on the other.

62 [36] [72] Keesing suggests that the tendency, mentioned by Williams, for the Orokaiva to disperse into smaller residential units since pacification had been particularly marked on these heavily populated slopes. The suppression of intertribal feuding probably

[1] To a lesser extent they are also interspersed with parcels of other lineages' land.

166 [342] Individual mobility is still high, as we have already noted. Mobility is facilitated by the fact that material for housing - vange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

36 [621] The patrol of 1948 which found this area 'literally a mass of small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

361 178 621 [177] When people began to leave the evacuation camp there was a spontaneous trend, which was encouraged by officials, towards building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

62 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

[613] [1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

241 171 361 With the passage of the cultivation cycle over a Chimbu sub-clan's territory, gardeners move from one men's house to another, either as a persisting group of agnates working contiguous holdings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepe on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] [602] There is no local group or extended kinship group which commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 614 184 In other Orokaiva areas (such as Inonda) gardeners of one lineage often have a reciprocal arrangement with another lineage of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepe. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 171 425 Encroachment on boundaries is feared[1] but does not seem to result in repeated changes of residence as it does among the

[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Table 5

Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)	
1. Planter is a member of lineage holding proprietary rights	15	9.17	
2. Member of a different lineage but same clan branch	5	2.57	
On land of planter or co-resident agnate			11.74
3. Member of a different clan within the same village	10	4.49	
4. Member of another branch of the same clan	1	0.10	
5. Member of a different clan and village	3	1.51	
On land of others			6.10
	34		17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.[A]

Chimbu or to influence the choice of a garden site; a Sivepe man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups'.

A,[See Category 245, pp. 83-86; Category 249, pp. 87-93; Category 423, pp. 95-98--Analyst]

425 f. Local organization and land transfers

(i) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

245 coffee gardens.[1] About 320 trees were planted on the Sivepe plot. It was not government policy to encourage community gardens, but those who made the garden were under the impression that this was the wish of the officer who suggested that the people in the villages plant coffee.

Clearing of this 'company' garden was carried out jointly by members of all Sivepe clan branches. A part of the land they used belonged to a Timumu lineage and the rest to a Jegase lineage. [G54] While the trees were maturing an agricultural extension patrol told them to stop working the gardens jointly and to make new individual gardens. In 1957 a Cadet Patrol Officer gave the same advice explaining that disputes would otherwise occur about the distribution of income from coffee sales.

● [G13] It was decided to divide the Sivepe coffee along pre-existing lineage boundaries; one part was taken by a man of Hajejopa lineage of Timumu clan, the other by a Seho man (e3S) who is the husband of the only surviving member of the Jegase lineage, Sesewopa. Even after this had been done these men claim to have shared the small amount of money from the first sales with the other planters.

Since the division the Timumu man has indicated that he claims the land as far as a creek which formed the outer boundary of the village plot on the Seho man's side, i.e., that he believes all the coffee was planted on his land. Even though the Seho man applied in 1960 to have his section on his wife's land registered with the Higaturu Council, he now intends to give it to the Timumu man and to plant new coffee on his own land.

The other 3 gardens were planted on a household basis in 1957.

Two men from other clans have planted coffee on the land of Jegase men in Sivepe. One garden was made about 5 years ago by a Seho man from Sivepe (e4S) on the land to which his father had planting rights. The land had earlier been held by a man who was the wife's brother and sister's husband of the present planter's father. The holder of the residual rights passed them to his classificatory sister's son from Berekipa lineage who some years ago used the Seho man's land for subsistence gardens.

The other garden is on the land of a Bebehupa man and was made by his father's sister's son, an Usohu man from Binduta. The Usohu man was given rights to plant sago and coffee because he had been named after the landholder's father's father.

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[1] In August 1955 an area 30' x 40' was reported to have been cleared and planted with shade under the direction of the Village Constable.

Appendix D

Plant emblems[1]

613 [824] The members of Bebehupa lineage have the plant-emblem commonly associated with the dispersed clan branch, sesevo grass,[2] as their lineage emblem or erahu.[3] The Sesevopa lineage is a small group closely associated with the Bebehupa people for many years and informants, when asked to explain its name, suggested that it was descended from a Bebehupa woman and that the new lineage referred to its ancestress by the name of the erahu of her group, i.e., as Sesevoja, and themselves became known as Sesevopa. This explanation may reflect the present relative numerical strength of the groups and the process of segmentation may have been quite different in fact.

One unnamed genealogical branch of the Bebehupa lineage has taken the esege bush as an additional erahu. The Berekipa asserted that in practice they as a group would never use sesevo as an emblem, though they accept it as having been the emblem of Jegase men in this neighbourhood. Both the name 'Berekipa' and their own erahu, the simboro plant, were adopted (in circumstances which we could not ascertain) from the so-called 'people' of both the mother of the senior householder, and of the patrilineal ancestor of the other householders. We could not fix any historical details of the connection between this 'group' and either the Bebehupa or the Arehu. The latter also use simboro as an erahu, in addition to their own topu (fig?)-tree emblem.

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1 See Williams 1925; 1930:Ch.8.

2 Confirmed by Williams' data collected in 1923 (W.83). Even then not all members of the clan shared a common erahu (see Crocombe and Hogbin 1963:16; Williams, ibid.).

3 Referred to by Williams as hai or hae at Wasida (1925:408; W.12 ff., passim); kerahu and keratu are the usual variants in other dialects.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
Each clan is subdivided into named sub-groups or lineages which
[613] trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

591 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
[592] patrilateral or matrilateral kin or of affines, and it may be
[594] changed at any time. The composition of individual households
within the village likewise varies, although the basis is generally
[614] the nuclear family. The distribution of clan branches through a
[166] number of villages is closely related to access to the group's
land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 423 [613] [425] [578] that is then cultivated contiguously,[1] while in the high density areas there is a tendency towards a more individual pattern of exploitation.[2] Short-term rights to land for the non-lineage members are frequently granted (on a reciprocal basis), sometimes to facilitate contiguous cultivation or to compensate for inadequate landholdings. This pattern is promoted by the high degree of fragmentation of individual holdings. Further to this, Rimoldi (1966:62, 95) observes that plots are often permanently transferred outside the direct patrilineal line, and this applies equally to land under both cash and subsistence crops. In the Inonda area, however, Crocombe and Hogbin (1963:73-5) observe that there is considerable reluctance to plant, or make land available for planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial situation may be of considerable significance in the development of cash cropping.

245 428 Traditional tree crops are not planted in stands or groups like cash crop trees, but are widely scattered and may equally well be planted on patrimonial land or on land of affines or matrilateral kin. Inheritance of rights to trees usually does not involve rights to the land on which they stand. However, owing to their wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[2] [311] [136] [417] It is possible that this is an expression of the fact that sufficiently large areas of suitable secondary forest are not available at any one time to permit contiguous cultivation. Two other factors are that in low density areas wild pigs and other animals necessitate the fencing of gardens, a task which is easier for contiguous groups than for individuals, and that in forest much wider fringe clearing is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

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Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A, [For Table 5, see Category 166, p.43--Analyst]

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 [614] [613] A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

583 These people were expected to return a feast of similar size for
[85] the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 The economic consequences of the payment were greatest in four
613 households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 This was not an ideal situation in which to investigate the
614 extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 The range of genealogical connections between the groom and
602 heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 Co-residence in a village may also have some influence. Some
621 people, though not all, from each of Kakendetta, Hohota I, Hohota II and Urio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Mosou, Ajoro, Sewa or Jegerata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

tor) is suffixed by the term 'undi (the descendants of a particular ancestor) or haha (which is sometimes shortened to ha).(1) In conversation the Orokaiva often refer to the jawo (name) and speak of members of the one clan as embo jawo vahai (people of the same name). Alternatively, one's clan is frequently referred to as one's orope (men's house, as each clan group within a village occupied a separate men's house). More commonly, however, people used the English word 'clan' even when speaking in the vernacular.

Clans are usually dispersed and in the case of the Andiriha separate sub-clans are to be found in at least five villages. We use the term 'sub-clan' to refer to a local branch of a clan (i.e. within a particular village or a cluster of neighbouring hamlets). Orokaiva people use the terms quoted in the last paragraph for sub-clan as well as for clan, and distinguish sub-clans when necessary by adding the name of the village in which they are located. Clans and sub-clans are not exogamous but people express a clear preference for marriage outside the clan.

A sub-clan is usually divided into a number of lineages each of which has a name and an erahu which is distinct from that of the clan as a whole.(2) To determine a man's lineage it is usual to ask the name of his haije (the ancestor or ancestral name from whom he traces). Several persons were unable to trace their precise relationship to other members of the same lineage. Genealogies are short and no person could name any ancestor earlier than those who settled in Sambogo about fifty years ago; and only a few of those could be named. The lineage was said to be strictly exogamous but an instance of marriage within a lineage was noted. Some lineages are further

(1) These terms refer to descent groups as a whole. An individual male uses the suffix mo and a female jo. Thus a man of Jego'undi clan is referred to as Jegopa and a woman as Jegoja.

(2) The plant emblems of the lineages are as follows: Jovumbo'embo lineage, paiuvo emblem; Oiwa'undi lineage, para emblem; Darafa'embo lineage, hovuvo emblem; Jegotumo lineage, para emblem; Jego'undi lineage, dinoma emblem. These emblems are all plants, whereas that of the clan as a whole is a particular knot, and any leaf, vine or grass may be used to form it.

613 divided into sub-lineages.

614 There is no unitary leadership of a dispersed clan. The highest level of unitary leadership is usually that of the sub-clan or of linked co-resident sub-clans (as at Inonda), though we have heard of instances elsewhere in the Orokaiva area of leaders of senior sub-clans having some authority in respect of junior (i.e. more recently formed) branches of the same clan which are located in separate villages in the vicinity. The [622] leader of a sub-clan is referred to as the embo kiti or embo kiti jigari (first-born man or first-born leader), and of a village as the embo dombo (big man). The embo dombo of a village seems always to be embo kiti of his own sub-clan within it. These are descriptions of particular statuses and are not formal rank titles.

614 622 Leadership of the Andiriha sub-clan was shared between three individuals in a delicate balance. They were also in practice the leaders of the village as a whole for the Jego'undi are in a subordinate position. The first of the leaders was the eldest surviving son (by adoption) of the previous sub-clan leader. He does not now live in the village, but about two miles away on the Girua resettlement scheme. He pays frequent visits to the village and exercises considerable influence, particularly in land matters. He speaks of himself as the embo dombo of the village and embo kiti of his sub-clan. The second was a man descended from the Hohota branch of the Andiriha clan (which claims exclusive rights to a tract of land there, whereas the Inonda section of the clan does not claim exclusive rights to its land). He was a forthright, assertive man and was recognized as sub-clan leader for some years during the absence of the first man mentioned. He lived in the village and still claimed to be embo dombo and embo kiti (until his death during our stay) on the ground that the former leader had "left the village". The third leading citizen is the eldest surviving child of the first-born son of a former sub-clan leader (now deceased). He is at present the elected councillor for Inonda and neighbouring villages in the Higaturu Local Government Council. Being a young man he does not claim to be leader of the sub-clan but generally defers to his elders, though he often acts as their spokesman.

614 Other sub-clan rights include those to burial grounds
423 and tracks. Once land is set aside and used as a burial ground
425 it remains vested in the descent group even after it is no longer
764 used for burial. Burial grounds may, however, be a post-
[117] contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

613 The lineage: The Andiriha sub-clan of Inonda is
423 divided into four lineages but the Jego'undi sub-clan consists of
425 a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

piece of land named Ombarahambo (which had previously been held by the leading Joremba'embo lineage). Some of them later returned to Hohota, while others remained in Inonda.(1) Later again, one of the original lineages (Paru) died out and its lands have been absorbed by the remaining lineages.

The Jego'undi sub-clan was allotted land at Kakitasuru and Ajerita. In later years a Jego'undi man cleared a piece of virgin bushland at Eumo and it is consequently regarded as their prerogative to plant that portion.

The following table showing the lands of each lineage in Inonda was compiled from incidental data and may well contain minor discrepancies. It will be noted that the Joremba'embo lineage is divided into two sub-lineages. A sketch map of the land is shown on page 105.A

(1) The Jegotumo are now divided into two distinct sub-lineages, one in Inonda and the other in Hohota. While they function as a single lineage for certain social purposes, the Hohota sub-lineage does not exercise any land rights in Inonda. The Inonda sub-lineage, on the other hand, continues to use some trees and gardening land in Hohota.

A [See Category 102, p. 105--Analyst]

Lineage	Lands in Inonda	
Jorumba'embo: This lineage is not represented in other villages. It is to this lineage that the sub-clan leaders have belonged since the village was established. This lineage is subdivided into two sub-lineages.	Kofuretta	(First sub-lineage)
	Jombata	(" ") Originally belonged to Paru lineage (now extinct)
	Topchambo	(First sub-lineage)
	Pujota	(" ")
	Jaagi	(" ")
	Kendahambo	(" ")
	Hazahambo	(" ")
	Inonda	(" ")
	Kumbara	(" ")
	Ombarahambo	(" ")
	Peu	(" ")
	Enmo	(" ") Originally belonged to Paru lineage
	Jegarutapema	(Second sub-lineage)
	Jawaha	(" ")
	Aruruta	(" ")
	Hafu	(" ")
	Hahemo) Mimina)	Given direct to the councillor by his mother's father, a Tandai'undi man.
Oiva'undi: Another branch of this lineage lives at Jegarata.	Enmo Ajerita Homa Peu	
Darafa'embo: Other branches of this lineage live at Hamakiro and Hohota.	Hondetta Soruta) Jegarutapema) Hafu) Ombarahambo)	Originally held by a Jorumba'embo man whose wife was from Darafa'embo lineage. Rights then passed from a son who had no issue to an adopted son in Darafa'embo.
Jegotumo: Another branch of this lineage lives in Kahendetta. The Inonda branch fled from Asumba direct to Hohota where they obtained (and still hold) land by conquest from the Ururu people.	Ombarahambo Homa Kakitasuru Inota	
Jego'undi sub-clan (comprises only one lineage)	Wutafota) Jonita) Embasari) Topchambo)	Originally held by Paru lineage of Andiriha sub-clan.
	Kakitasuru Ajerita Enmo	
	Seseharuta	Given by mother's brother.

592 The household: This usually functions as a single unit of food production and consumption. In the case of a polygamous household, however, each wife plants and cooks separately, and in extended families which accommodate one or more unmarried adults these usually have individual food gardens though their produce is pooled and cooked for the whole household.

592 Land rights exercised by the household as a unit are
423 restricted to usufructuary rights for the production of short-term food crops. This situation is analysed in more detail in the following section.

423 The individual: The land rights of individuals are
613 predominantly a function of their status in relation to particular
614 sub-clans and lineages. From data collected in Inonda we can recognize four distinct statuses:

(1) Primary membership: This is the status of persons who were born or adopted into the descent group and who are domiciled within it. Of the eleven adult males in Inonda, nine were primary members of either the Andiriha or Jego'undi sub-clans. A marginal case not included above is that of the ex-leader of the Inonda village who recently shifted to take over a farm about two miles away on the Girua resettlement scheme. He visits the village frequently and is still treated for most purposes as a primary member.

(2) Contingent membership: This is the status of persons who have been primary members, but have subsequently left the village (either at marriage or otherwise) to live elsewhere. They do not normally lose all their rights by doing so, though the nature of their rights changes. A contingent member, it seems, can generally regain primary membership by returning to reside in the sub-clan (as frequently happens with widows, returning migrant workers etc.). We are aware of eight contingent members of the Inonda sub-clans. Four of them are women who are married to men in other villages. Of the four men, one is away at work in Port Moresby, one is living in his mother's village and will probably remain there, one lives on the land of his deceased sister's husband in another village and the fourth lives in the village of his mother's new

husband and uses the latter's land.

(3) Secondary membership: This status is held by the children of contingent members of a descent group. Most people can claim secondary membership of their mother's father's lineage and clan. The degree to which the rights associated with secondary membership are in fact exercised appears to depend on the distance from the mother's village and the amount of contact with her family.(1) Although no attempt was made to compile an exhaustive list of secondary members of Inonda sub-clans, incidental information was collected on eight such persons. The children of secondary members of a descent group may be regarded as distant secondary members but, although in exceptional circumstances a distant secondary member may exert land rights in that group this is in fact a rare occurrence.

(4) Permissive membership: This is the status of those who reside in a sub-clan or lineage but do not belong to it by birth or adoption. They are admitted under particular circumstances and generally only for such time as they observe the conditions appropriate to that admission. Of the eleven adults in the village who have only permissive status with the Inonda clans, eight are wives of Inonda men, one lives with his mother who is now married to an Inonda man and the remaining two are a married couple who have two daughters married to Inonda men.

In summary, primary members are linked to the descent group by both descent and residence, contingent members by descent and previous residence, secondary members by descent only and permissive members by residence only.(2) There are of course marginal or special cases in each category, but each person in Inonda was found to fall into one, two or

(1) Most instances cited related to the taking of produce from the land of the mother's father or brother.

(2) The sub-clan membership status of adults in Inonda was as follows: household heads, 7 primary and 1 permissive members; wives, 9 permissive members; others, 3 primary (2 men, 1 woman) and 2 contingent female members (the latter visiting).

423 three categories in relation to particular clans, i.e. a man
613 may be a primary member of an Inonda sub-clan and a secondary
614 member of his mother's clan; or a married woman may be a contingent member of her father's clan, a secondary member of her mother's clan and a permissive member of her husband's
423 clan. Each category may be sub-divided according to sex, for
562 the rights of males in each category are in some respects different from those of females. Hunting rights, for example, are never exercised by women though occasionally a husband hunts on the land of his wife's sub-clan. Likewise food gardens are seldom planted by a married woman on land in which her lineage has proprietary rights; and men quite often harvest tree crops from their mothers' lands, though women seldom do so.

614 The people of the Andiriha and Jego'undi sub-clans
613 of Inonda recognize all other members of their respective clans,
423 wherever they reside, as kinsmen. Although distant kinsmen visit for feasts and ceremonial occasions, only those persons who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

614 The status of adoptees varies according to in-
613 dividual circumstances as the following examples show. About
423 fifty years ago the Andiriha (who were then living at Sambogo)
591 attacked a village of a neighbouring but unrelated Managalas tribe. Some of the inhabitants were killed and others fled. Two small boys who were captured were adopted by an Andiriha

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

423 be available to any villager if another abandons them and does
961 not intend to rebuild on that site. The people can, nevertheless,
[425] point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

423 Garden land: There is considerable flexibility in the
241 relationship between the planting of food gardens and the holding
613 of rights to land. Of the 55 gardens (covering 27.1 acres)
614 which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha sub-clan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

Table 3

Rights to food garden land

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Nature of planter's right in his garden land	No. of gardens	Area of gardens (acres)
1. Planter is a primary member of the rightholding lineage	20	9.8
2. Member of a different lineage but within the same sub-clan	18	8.3
3. Member of a different lineage and sub-clan within the same village	10	3.7
4. Member of a different lineage but within the same clan (though in another village - Hohota)	3	1.6
5. Permissive rights only (belongs to a clan which is not represented here, but lives in Inonda village)	2	1.1
6. Permissive rights only (as for 5, but gardens located in another village - Hohota)	2	2.6
Total	55	27.1

only permissive rights at Inonda or any nearby place. He has been living at Inonda for some years on a temporary basis and is dependent for gardening land on his relatives by marriage at Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

- Informants claimed that a man in need has the right to make gardens on the land of the mother's brother though this is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

Hunting and foraging rights: Any primary member of the Andiriha and Jego'undi sub-clans in Inonda can hunt or forage on any portion of the Inonda land which is covered with virgin bush, kunai grass, or second growth. Likewise any villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

423 permission, custom does not permit of permission being withheld
226 unless the circumstances are exceptional. On two occasions
614 during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

423 On rare occasions Andiriha people from distant
226 villages have been given the right to fish in the Girua river to
628 obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

226 Rights to that part of the Sambogo river which flows
423 through Inonda are not held jointly by the sub-clans. There are
614 five divisions in the river, each of which is held by one or other
613 of the lineages. One particular pool is held by an individual,
[425] the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not
[621] necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

Alienated land

432 The only alienated land in the Inonda area is a mission lease of five acres close to the village. It was purchased by the government for the sum of £5 and leased to the Anglican Mission for a school site.(1) The purchase money was paid to the then head of the Andiriha sub-clan but it is said that he received it in his capacity as leader of the lineage which had occupied this land (or as successor to the head of the extinct Paru lineage). The money was not shared. The main Popondetta-Oro Bay Road runs through Inonda, but the actual purchase of the land by the Crown has not yet been completed.

Transmission of land rights

425 Examples have been given of the transfer of land rights between clans (pages 14-16, 21-23) and of the succession to rights of a lineage which died out (page 26). Within the lineage the ideal pattern of inheritance of land rights by individuals 428 is patrilineal. 613 The sons often hold rights jointly, though in some instances the lands have been divided between sons. As the number of resident adult males in any lineage does not seem to have exceeded three either in the present or the remembered past, joint rightholding has not occasioned undue difficulty. Although it is customary for the rightholder who is senior by birth to act as spokesman for the rightholding group, he does not appear to hold any superior rights to his co-parceners. While the patrilineal pattern predominates it is modified by factors of residence, family size, adoption, availability of land, and matrilateral and affinal connections.

The people traced the inheritance of proprietary rights to twenty-two out of thirty-seven blocks of land by direct patrilineal descent from five initial rightholders. It is appreciated that deviant relationships (adoptions, illegitimacies, refugees, etc.) are often forgotten, particularly in earlier generations, and memory assimilates the realities to the ideal pattern. It is therefore possible that inheritance was not so direct in fact.

(1) It is not at present in use as the school was shifted several years ago to Hohota.

423 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

[241] [613] There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening areas of individuals. People frequently plant food crops on the land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:778.

14: Crocombe & Hogbin E-5 (no date) 1963 OJ23 Orokaiva OJ23
Inonda

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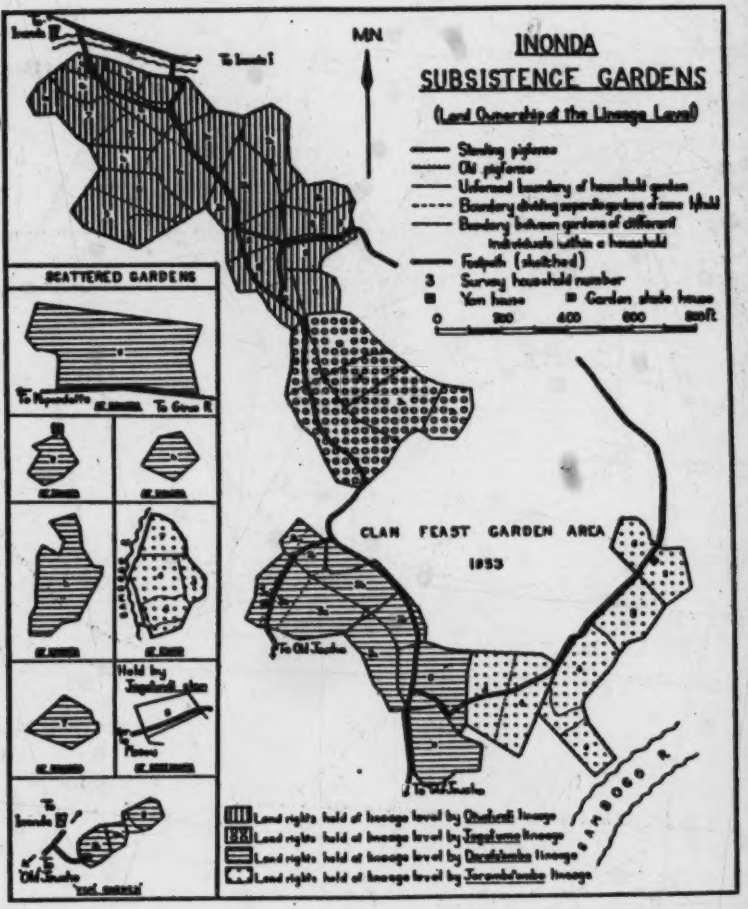

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer kin, a clan, and maybe a lineage. Lacking any [613] system of payment in cash for services ren-
602 dered, the villager obtains the assistance of his
464 relatives for heavy work such as the felling of
476 big trees to make a swidden, dragging a canoe log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by
602 making a gift. The kinship group provides
311 social stability and in practice the pattern of
241 land use is frequently decided by the senior members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

657 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such meas-[578] ures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-
177 fore the coming of Europeans, has forced an even more drastic adaptation than have the
[P.3-A]

632 changes in rural areas. For a man to leave his
177 village and go to work in the town means long
632 separation from his family and from his kin,
464 an experience unheard of in the past. Separa-
602 tion from his relatives means that he may be
361 facing dangerous risks from the sorcery of
754 foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

121 The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

133 *Topography.* Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

614 *Social.* The social structure of the Yega is
613 localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

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a Land Titles Commissioner today has the difficult task of adjudicating the rival claims of two or more groups to the same areas of forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

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The Yega parish is composed of eight named, exogamous, localised clans most of which are divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan has a different totemic emblem which serves as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

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An abbreviated table illustrating the Yega social structure is given in Table 1.
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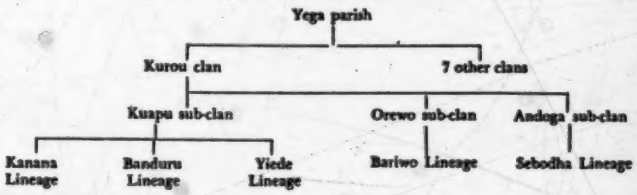
TABLE 1
Abbreviated outline of Yega social structure



[P.6-C]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with [428] them. These affinal kinsmen thus acquired cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.7-A]

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

(P.7-B)

[TEXT CONTINUED ON PAGE 8-B]

241 423 613 is maintained today because, the Yega say, it makes the work lighter if you have someone to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 423 [602] [614] The granting of temporary rights to plant a food crop is normal procedure. A right-holder frequently grants such rights to affinal kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega land. He would simply give the right-holder a [431] [426] gift or, if asked, would lend land in return.

226 [462] The Yega are coastal people and expert fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 the Yega to exist off their strip of coast; rights 423 to fish over these reefs are held by the clans 614 whose ancestors first discovered them. Any person who catches fish over a reef belonging [431] to another clan must give a gift from his catch to the right-holders. Fish are caught by many different methods but the commonest nowa- [177] days is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 242 a) *The shifting-field cycle.* The average length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being æsthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Bosiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

621 main road, or even facing each other on opposite sides of it. Although this is clearly
361 the wish of the majority of the people, it does not suit all of them. There is some
731 talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

423 The inheritance of land is mainly patrilineal; but a man may work his wife's
● 613 land, and even, with the assent of her relatives, inherit a share in his mother's land. This means that individual members of a clan, instead of inheriting land jointly [428] from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of [554] the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
361 once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

but would estimate plantings to be about 4,000 trees, occupying an area of eight acres.

Among resources which produce significant current income in Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is earned by men who are normally resident in the villages. When these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside employment are bringing savings into the village which forms a significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of men ordinarily working outside came home for short visits. Probably the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

731 The experience of the eruption led to outside contacts that
177 would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the
121 eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the cooperative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

571 We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely
619 ego-centred model. I saw no evidence of groups of villages which
628 displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

571 Patrilineages were very shallow in genealogical depth.
613 Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis.
591 Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions [794] for formal cooperation between villages belonging to the same ward. It was characteristic of both the church and the government council [797] organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries [192] was a novel one (see Map IX).[A] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoge, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

628 These generalizations will be documented below; my task at
423 present is to consider contacts between Sivepe and closely allied
578 villages arising out of the eruption and relocation. Here inter-village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and [685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo. [621] Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda [428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepe. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepe and the closely allied villages were evacuated, and they were together at Ilimo. When the camp was
423 disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepe villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepe people in Awala. It seems that the Sivepe people did stay in Awala for three months, after which the Jegase and Timunu clan groups received permission to return to their land in Sivepe. The third Sivepe clan group, Seho, stayed on in Awala, but planted gardens in the Sivepe area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepe. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. Now this danger did not come from the other Sivepe clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepe people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Nelshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early converts belong to the Jegasa clan. Plant emblem groups (or lineages) 794 are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepe, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the hands of the 184 transport driver and one-time councillor, who played the role of lay-preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepe were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepe by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepe.

361 Comparing Inonda and Sivepa, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepa shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 Within a village, two kinds of kinship group larger than the
592 elementary family may be distinguished, namely the javo wahai (clan)
616 and the hae (lineage, or plant emblem group). We may also distinguish two kinds of residential group, the occupants of a bende or side and
614 of a bande or house. On the nature of the clan I shall be brief here, reserving detailed documentation for my doctoral dissertation. It seems to me mainly a political unit, held together by--in some but not all cases--belief in common descent from a single patrilineal ancestor, by the common name (javo) by which they call themselves and which they call out when slaying an enemy or a pig or in other moments of great stress, by the recognition of obligations towards and claims upon others who bear the same clan name. Rimoldi (1966: 33) is right when he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used to denote collectively all persons sharing the same plant emblem. The clan name (javo wahai) is transmitted only patrilineally, but the transmission of the hae is more complex. A person regards his hae, which may be any plant or part of a plant, or another natural substance, as a part of his own identity. He may respect it in the manner of a totem but such avoidances seem always to have been to some extent a matter of personal choice. (Williams, 1930: 127-218) The hae is used in a number of social contexts as a mark of identity. Williams seemed to believe that a hae was the distinguishing mark of a clan, but later investigators (Crocombe and Hogbin, Rimoldi) take it to be the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

613 in terms of a rigorous genealogical model, which is unfamiliar to Orokaiva, but in the sense that both are identified with the same plant or substance and thus very closely akin.

While clan affiliation is, in practise, determined by political [614] considerations, and a person may decide, upon calculations of family advantage, to assume a new clan name, the hae is utterly unpolitical and hae affiliation is a better indication of true blood relationship than membership of the same clan. In the hae, but not the clan, a kind of hierarchical classificatory principle may be found. To explain this, I should first point out that most informants I interviewed had at least four hae, two paternal and two maternal ones, and not infrequently I recorded as many as three paternal hae, and a total of five. Many people, when using a hae as a mark of identity, for instance on the road, to show they had been there, would actually use two hae plants. For instance, almost everyone in the district used the hae called sasaha (a grass), but if another hae, tandere, was added, a person finding these signs would be able to identify the owner as one of a quite limited group of people. For the purpose of this discussion, I shall use the word hae as meaning such a combination of emblems which sufficiently define identity. Such a combination of hae never defines an individual or even an extended family as usually several extended families share the same combination. But the patrilineal units thus defined are always smaller than a clan. To this extent, earlier authors are thus justified in calling them "lineages." It would be wrong to suppose, however, that the same combination of hae cannot be shared by fellow villagers belonging to different clans, for this is often found. Thus, those translating the word hae as "lineage" should be careful to avoid the implication that such "lineages" are segments of clans.

The population of Sivepe is very hard to classify into hae because I noted 42 hae in use, only 11 of which were shared by at least four adults. Nonetheless, the fact that two persons share a hae is often a valuable clue pointing to a close relationship that is of considerable social significance, but that might otherwise be [621] ignored as idiosyncratic. By far the closest bond that can exist between the members of different extended families is that they share [582] both a clan name and common hae. When such a bond exists, rules of exogamy are stringently enforced. These rules also apply, but less stringently, if two persons share the same clan name, but no hae, or if they share a hae but no clan name.

614 For our present purpose, it will be most convenient if we 621 classify Sivepe households according to the clanname of that person in the household who is what Fischer (1958) has called the "sponsor," i.e., the person by whose presence in the household the residence of the family in Sivepe can be explained. On that basis, 13 households and the bachelors' house may be classified as Jegase, eight households as Seho and six as Sorovi, as in the first half of 1967. It is desirable, however, to observe how rapidly this pattern of clan

361 villages (Garombi, Soroputa, Hohorita). When New Sivepa was built it had become a familiar procedure and was simply copied from other villages.
614 It is an interesting adaptive institution, and the Orokaiva answer to
616 Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far
[177] was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepa but by no means in all the villages.

614 — Rimoldi classified the Jegase clan into four lineages (Berekipa, Sesewopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He
613 further distinguished two Timusu lineages (Hajejopa, Pekuma), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

Inonda, in the same period, has developed in the direction of
621 a one-clan village. In 1951, out of 12 households, eight were of the
614 Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepa, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The main differentiation noted by earlier authors was that between cash-croppers and those engaging only in subsistence gardening. Now in this respect there was no noticeable difference between clans in Sivepa: out of 1,100 coffee trees growing in Sivepa in 1962, 503 belonged to Jegase and Timunu and the rest to Seho, while in Inonda the coffee growers belonged to two Andiriha lineages. In Sivepa today most men grow coffee, and this applies equally to the Jegase, Seho and Sorovi clans; the exceptions are elderly people. There are, however, very significant differences in other respects between socio-economic patterns in the Jegase and Seho clans--differences which are obvious even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are predominantly in the 35-45 year age group whereas Seho is predominantly
[535] a little older (45-55 years). Hence the dance group formed in Sivepa is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase people know some English, none of the Seho people over 35 speak any
[191] at all. Furthermore, the first village constable and the first councillor in Sivepa were both Jegase men who had taken up employment well before the second world war. During the years they held these posts (1939-1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more occupational experience. This experience, for both clans, did not include work requiring much formal training; it was labour on rubber and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless, an intelligent man thrown into these kinds of situation can find out a good deal about the outside world; in later dealings with external agencies, he is able to make more informed judgments. A further opportunity for such experience was offered the Jegase clan when the Australian National University, which made Sivepa into a sample village for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

13: Hogbin OJ23 Orokaiva OJ23

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[For additional information on lineage, clan, and village role in a bridewealth transaction, see Category 583.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

IV

The ethnography is divided into three parts. In the first part, after providing a brief general sketch of Orokaiva culture, I shall examine the 'starting mechanisms' of Orokaiva exchange cycles, both in traditional institutions (Ch. III) and in institutions developed since the British-Australian conquest (Ch. IV). The second part of the study is concerned chiefly with objects of mediation: land, taro, pigs, minor foods and ornaments (Chs. V–IX). In the third part the focus shifts to the relations between exchange partners mediated by the prestations analysed in the preceding chapters.

Although my presentation of Orokaiva social structure in this part of the work is not intended to be controversial, the focus differs from that of earlier ethnographies and here and there earlier findings had to be questioned in the light of fresh evidence. Orokaiva society contains several types of groupings (clan, local clan group, lineage, plant emblem group) whose members, according to informants, are recruited exclusively on the basis of agnatic descent. Earlier investigators have emphasised these patrilineal characteristics by equating the lineage and clan emblem group, proclaiming them both to be segments of local clan groups, and by treating the local clan group as something like a segment of a clan. My own analysis, however, will be concerned more with clan fusions and fissions, with irregular recruitment within the plant emblem group, and with the lack of evidence for agnatic connection between lineages and local clan groups. My evidence shows that the non-agnates recruited into these putatively agnatic groupings are mostly uterine kin. But above all I shall try to establish that these departures from the supposed agnatic norms are not cases of irregularity or deviance, but an integral part of the Orokaiva kinship system. I shall suggest that normally clans are not intrinsically agnatic but rather that they arose out of alliances between smaller groups whose original link was affinal. The effect of this argument is to show the narrow limits of range and scope within which Orokaiva patrilineal corporations operate, and thus to emphasise the importance of the exchange system as a principle of social structure.

As soon as we extend kinship analysis beyond the conjugal family, we observe that mediation is carried on not only through non-social objects used as gifts or prestations, but also through social objects used as intermediaries. Thus, in the relation between sister's son and mother's brother there is an intermediary who is mother of one of the partners and sister of the other. Similarly, the relation between two brothers-in-law is mediated by a woman who is wife of one and sister of the other. Men also often act as mediators between exchange partners when these are not linked by kinship, or when the exchange partners are female.

The principles of exchange are the same whether the objects of meditation be social or non-social. In both cases there are two partners, *ego* and *alter*, who establish or maintain a social relationship. The object of mediation, whether social or non-social, is so chosen that both *ego* and *alter* are – or become – closely identified with it. If *ego* and *alter* are male non-agnatic kinsmen, the mediator must be a woman: if they are female non-agnatic kinsmen, the mediator must be a man. In either case, the concept of an object of mediation implies that at the beginning of the transaction *ego* had some exclusive claim

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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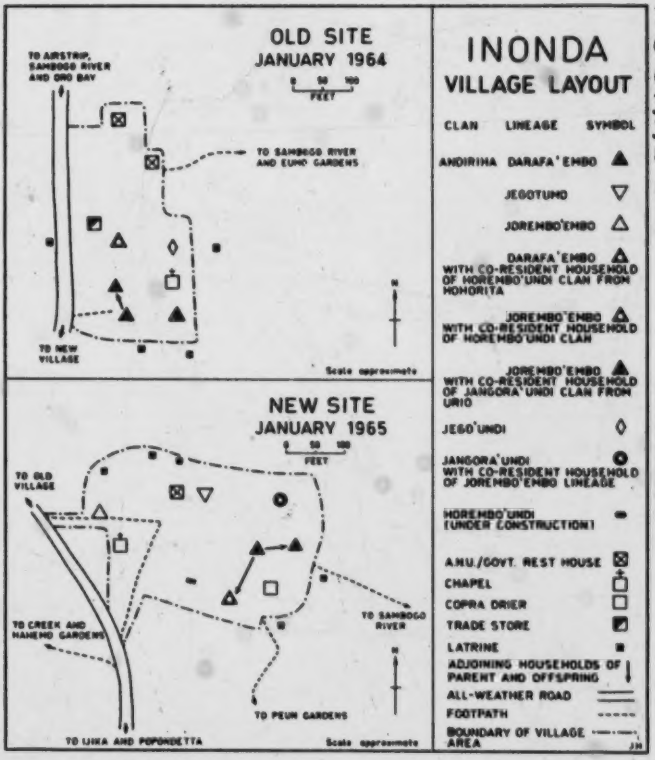

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

101 until June 1967. Previous intensive studies had been made there by Rimoldi and
105 Waddell. Sivepe is twenty-four miles from Popondetta, but this distance represents a drive of two to four hours in a Landrover, according to the time of year. The village lies on a side road, serving a population of some 2,000 living in the valley of the Sasembata (or Hembe) and Sohu rivers, two tributaries of the Kumusi. This side road runs from the main road in a south-easterly direction as far as Kendata. The Sasembata-Sohu valley combines all the most favourable ecological conditions: heavy rainfall, deep volcanic loam, excellent drainage, easy contours. The first time I drove to Sivepe was during the dry season. Turning from the main road, I found myself on a slightly improved grass track, with villages built right across it, the sweet aroma of coffee trees (which, incidentally is strongly disliked by the Orokaiva) pervading the atmosphere, lush vegetation, and a life-style on which the Europeans had apparently made much less impact.

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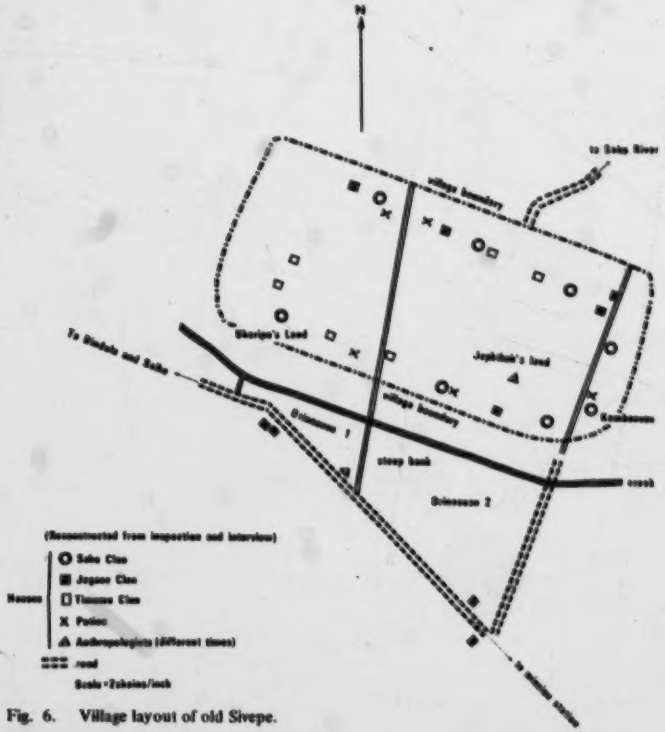

Fig. 6. Village layout of old Sivepe.

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body. 769 775 774 241

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic. 423

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted. [6N]

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships. 423 425

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures 423 425 611

Previous research such as that of Rimoldi (1966) has shown clearly enough that the Orokaiva patrilineage is not *in practice* an enduring corporate group. The model I am proposing here goes further: it states a rule according to which patrimonies are fragmented and the fragments constituted into new units. It follows from this rule that neither lineage membership nor the principle of patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of landed estates.

The basic condition for inheritance is that there should be a continuing filial or quasi-filial relation, usually based on co-residence and filial services, thus inducing the *enda mama* to make an appropriate response and continue the protection of the real or fictive junior, as symbolised by the transfer of land, often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

The land transfers so far discussed were conducted between agnates and largely prescribed by rules of inheritance. We have seen that there is some freedom of disposition, as the father is not obliged to transmit more than half of his land to his sons. His freedom is even greater if he has no resident sons or brothers. Even a man with many sons and brothers, and with only limited land holdings, is not prevented from making occasional land transfers, though these are more likely to be on only a temporary basis.

The extent of known transfers outside the rules of patrilineal succession has been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of 104 parcels of land belonging to the Jegase clan have been so transferred (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were sometimes members of the same clan but of a different lineage: sometimes they were members of another clan. The whole of the land now occupied by the Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama* and, by implication, to the men who had married these women. They were most commonly full sisters and full daughters, but there are many cases involving classificatory and adoptive relationships. The making of such gifts depends partly on inclination; a man who greatly dislikes his son-in-law will not settle land on him. If the daughter marries outside a radius of about three miles from the home village, she usually receives no land. Many women who marry in a neighbouring village receive land close to the boundary. The popular explanation of such gifts is the deep love between a man and his sister (or his daughter). There is, however, another consideration which may have encouraged these transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so that a village which allowed a woman to cultivate land, while married in an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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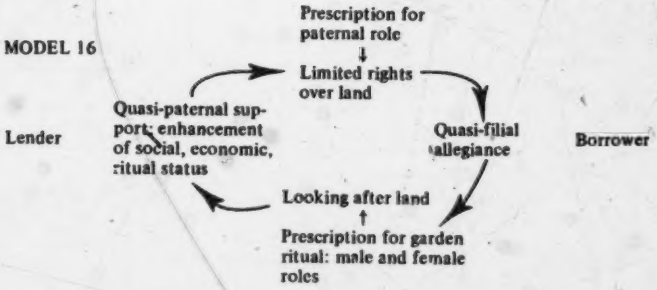
MODEL 16



6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, [428] however, the right to patrimony land is never extinguished. At the same time, a [431] land gift to a sister or daughter is often made on the basis that when the land passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study 614 of Inonda (1963) and supplemented in a brief study by myself. A leading man 423 from Tandai'undi clan (Seva village) gave most of the present Inonda domain to 425 a leading man of Andiriha clan. The Andiriha made various gifts at that time (1915) and also gave Tandai'undi two women in marriage. In the following [583] generation Tandai'undi, according to the custom (of patrilateral cross-cousin [582] marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

protection was now demanded on pain of eviction. Around the same time, coffee was being introduced in Inonda as a cash crop, but none of this was planted on Tandai'undi land. Three men who had land derived from a different source planted coffee there in 1955 but the other families who had only Tandai'undi land had planted none as late as 1967. They feared that if they did, there would be trouble with the Tandai'undi.

There are many examples in other parts of Orokaiva territory to show that these fears were fully justified. To confine myself to Sivepe, where my data are most detailed, I found that although more than half the land was occupied by rights other than patrimony only two out of fourteen coffee gardens were established on such land. When I inquired into these two cases one grower explained to me in careful detail that he had nothing to fear because the mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

602 One might well regard such immoderate claims as the response to a
423 breakdown in the social exchange relationship. According to model 17, increased
425 rights over land should mediate an *increased* quasi-filial allegiance, implying an
increased willingness to aid and share with maternal relatives. Such, however,
[245] was rarely in evidence. On the contrary, most coffee-growers, engrossed in the
new task of growing coffee, tended to ease up on their family obligations, gave
[797] fewer feasts and were apt to neglect their maternal relatives. This was especially
so because Church influence reduced the scope of initiation ceremonial which is
[881] one of the traditional key functions of the maternal family. Certainly the
maternal family hardly shares at all, under normal circumstances, in the
increased wealth generated by coffee-growing. Thus the uterine landowner feels
relatively alienated from his affluent nephew.

614 In order to demonstrate the importance of quasi-filial allegiance as a factor in
423 land transactions, I shall cite one case, again from Inonda, where coffee gardens
425 are being run profitably on land over which the grower holds only 'permissive'
rights. The three coffee gardens established in 1955, and still harvested in 1967,
are on land owned by the Endehi'undi clan but relinquished after a defeat in
[435] war. It has been used by Andiriha of Inonda since 1915. When Inonda people
started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash,
as well as pigs, traditional valuables and taro, in other words, a very substantial
consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha
continued to benefit from the coffee, it became obvious that Endehi'undi did not
regard this consideration as a *sale* price as Andiriha hoped they would do. They
saw it as no more than a proper display of quasi-filial allegiance, and expected
this sort of gesture to be repeated, or to recover the land.

[736] The Andiriha leader now invited a widower belonging to the Endehi'undi
group to move into his household. The invitation was accepted and in 1967 the
old man was still there. There was no further trouble over the coffee although
Andiriha did not tempt fate by making further plantings. By Orokaiva legal
concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader
had found a way to offer increased quasi-filial allegiance in such a way that the
profit from the coffee gardens was not reduced too much.

423 Instances of this kind help us to understand what was involved in the
425 Orokaiva system of residual or dual rights over land and dual allegiance owed by
571 individuals to different families from which land useholds are derived. We have
long tended to believe that the basic co-operating groups in primitive societies
are *corporate* groups. The Orokaiva data presented here show a second
possibility: namely a system by which individuals derive their land, and therefore
their sustenance, from a cluster of corporate groups in only one of which they
are a corporate member, although they maintain permanent exchange relation-
ships with the others. These other corporations do not make them permanent
gifts but leave them conditional upon the successful continuation of the
relationship. The fact that a man holds land on such terms *forces* him to
continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 571 621 128 'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

361 209

824 431 571 621 128 614 The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

824 431 571 621 128 It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *aura*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation. 437 231

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers. 231 825 602 262

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor. 224 825 [411] [773] [614]

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example. [262]

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband. 224 825 571

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift [252] [251] [431] [439]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

[769] [614]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian structures *'ne relèvent pas des structures élémentaires' (ibid.*: 122). We learn the precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many statements which demonstrate their patrilineal ideology: agnates are expected to support each other in war and all other vicissitudes of life, irrespective of their place of residence. The basic inheritance rule is patrilineal. Clans and clan segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
[428] paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE X/1

VILLAGE POPULATIONS AND CLAN ORGANISATION

Number of villages investigated: 15

621
614
361

Name	*Population*					
(a) One-Clan Villages:						
Ajoro	50	Tandai'undi				
Inonda	42	Andiriha				
Irihambo	30	Oripa				
Sombou	70	Pangaripa				
Kakita	24	Hatopa				
(b) Two-Clan Villages:						
Binduta	100	Jegase	Usohu			
Garombi	132	Sorovi	Betu			
Hamburata	91	Ehirari	Ohuru			
Kongohambo	96	Pugege	Ameti			
Sivepe	137	Jegase	Seho			
Torogota	65	Jeipa	Jaumbi			
(c) Four-Clan Villages		ve/ih	ih/av	av/so	so/ve[1]	
Hohorita	348	Oripa		Besupa	Sehopa	Horeppa
Sasembata	162	Garoha		Pekuma	Ato	Takone[2]
Soroputa	200	Seraopa		Jaja	Java	Timumu
(d) Multi-Clan Villages						
Kiorota	429				12 clans[3]	

Notes

[1] ve/ih etc. are made up of abridgements of the Orokaiva terms *veari, ihane, avunu, sose*. for which see Chapter X, 5.

[2] No marriages between Seraopa and Jaja are permissible today, but both clans marry preferentially into the Hamburata clans. [582]

[3] This village was settled in 1958 by refugees from the Mount Lamington eruption who previously occupied a number of smaller villages, according to the following pattern: [166]

Homumuta	1 Haripa	2 Penonupa	
Isivita	3 Jegase	4 Berekipa	
Bosisepa	3 Jegase	4 Berekipa	11 Seraopa
Tambore	5 Oetopa	6 Ahungata	
Taremuturu	5 Oetopa	7 Pusaripa	
Pinda	8 Isivupa	9 Juvaripa	
Kandata	10 Jepuripa		
?	12 Omborapa		

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OJ23 Orokaiva OJ23
Mountain Orokaiva

614 Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

614 824 The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting [773] access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants of plants, but that the ancestor was a man bearing the name of that plant. Clan [553] and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

614 824 To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging [582] and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and [611] mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*. In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present.

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions.

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*.

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like.

Elopement marriage likewise used to be very frequent. Williams reports that it

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva, OJ23
Mountain Orokaiva

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*vearí*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *vearí* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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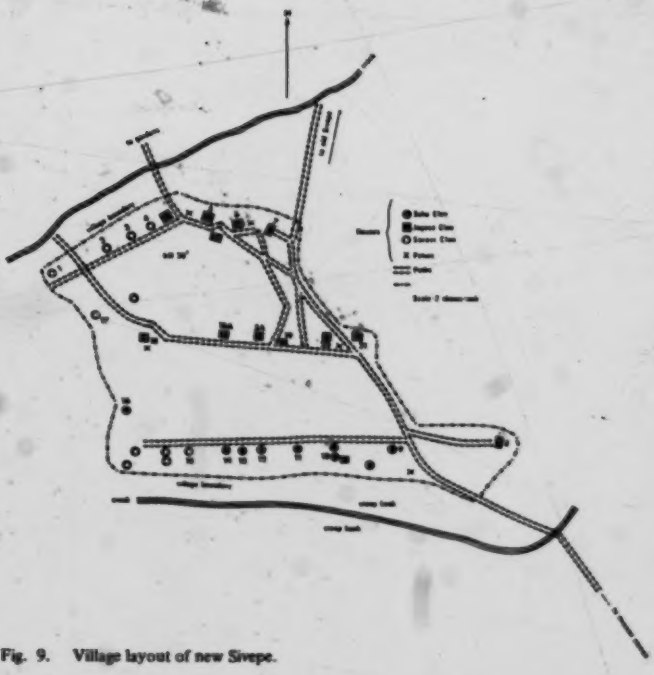


Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Affine (A): Spouses of consanguines of own and junior generation; co-eval and senior consanguines of those spouses.
Generational Removal: G–O: Same generation as *ego*. G1: One generation removed. G2: Two or more generations removed.
Sex of alter: M: Male; F: Female.
Sex of ego: Em: Male *ego* Ef: Female *ego*
Relative sex of ego and alter: SS: Same sex. OS: opposite sex.
Relative sex in consanguineal linkages; //: Relationship is either wholly agnatic or wholly uterine. X: relationship is neither wholly agnatic nor wholly uterine. It passes through at least one opposite-sex linkage.
Marriageability (same generation only): Ma: Relationship belongs to marriageable category. NMa: Relationship belongs to non-marriageable category.
Relative age of alter: Sr: Older. Yr: Younger.

Using this code, we may define in the following way the kinship terms used in addressing consanguines. The bracketed terms are in the dialects from which Williams' information is drawn.[1]

epe:	M	Sr	G2	C			(Williams: *ahije*)
	M	Sr	G1	X	C		(Williams: *nobo*)
jape:	F	Sr	G2	C			(Williams: *ahije*)
mama:	M	Sr	G1	//	C		
aja:	F	Sr	G1	//	C		
tata:	F	Sr	G1	X	C		
apa:	SS	Sr	G–O	//	C		(Williams: *bitepemi*)
	SS	Sr	G–O	X	NMa	C	(Williams: *simbo*)
eambo:	SS	Jr	G–O	//	C		(Williams: *biteambo*)
	SS	Jr	G–O	X	NMa	C	(Williams: *simbo*)
du:	OS	G–O	//	C			
	OS	G–O	X	NMa	C		
simbo:	G–O	X	Ma	C			
meni:	M	Jr	G1	//	C		(Williams: *mei*)
iai:	F	Jr	G1	//	C		
ahije:	Jr	G1	X	C			
	Jr	G2	C				

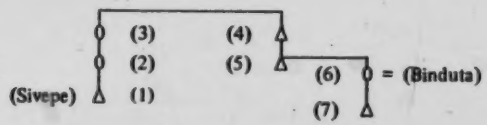
This componential analysis, prepared from Orokaiva ideological statements, contains all the ambiguities characteristic of the system itself. Different local clan groups are supposed to use sibling terms in addressing each other. But this is above all a strategic device to emphasise the obligation of mutual political and military support. Extension of the exogamy rule to distant clansmen would logically follow from their classification as siblings, but serve no useful purpose. On the contrary, if local clan groups live at some distance from one another, the bonds between them will wear rather thin unless intermarriage between them actually does occur. In practice, distant local clan groups are not infrequently used as partners in reciprocating pairs of groups. They are then regarded as not 'really' agnates, and terms of address such as *simbo epe, tata* are used. Once intermarriage has been instituted such terms are regularly transmitted from one generation to the next.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 Within the village, two different principles prevail according to the presence or absence of a generation difference. Where a generation difference exists, opposite sex linkages are always expressed in terms of address. A mother's brother is always called *epe*. The *epe/ahije* bond is based on mutual affection and voluntary support, whereas the *mama/meni* bond is based on strong mutual obligations and an authority/obedience relationship. On the other hand, collaterals of the same local clan group will never call each other *simbo* even though biologically they may be cross-cousins. They use sibling terms and are strictly bound by exogamy rules. In a multi-clan village, collaterals of different clans will sometimes use sibling, sometimes cross-cousin terminology. Here the criterion is whether the persons concerned shared a plant emblem (*hae*).

582 A rule that was expressed to me often and forcibly was that people should
614 not marry if they share a paternal or maternal *hae*. The relationship of a person
824 with his *hae* is one of complete identification. If a man says that his *hae* is *sasaha* grass, he means that *sasaha* grass is his 'ancestor' and that he himself *is sasaha* grass; i.e. he is completely identified with it. If two people are identified with the same plant in this way they are siblings; they cannot possibly be anything else.

601 In general therefore a *simbo* is someone with whom one does not share a *hae*.
602 This rule obtains whether or not *ego* and *alter* live in the same village. A study of actual kin relationships between *simbo* in different villages bore this out. A typical *simbo* relationship would be between *fafasiso* children/*famobrososo*. The *fafasi's hae* would be transmitted to her son, but not to her son's children. The latter would therefore share no *hae* with the grandmother's natal family. Some *simbo* relationships are far more distant than the one quoted here. A typical example is the following:



Here the *simbo* relationship links families of two villages, Sivepe and Binduta. The genealogical pattern may be accounted for by extremely strong attachment between siblings of opposite sex (*du*), and for the tendency for this strong attachment to be reproduced in the next generation. The genealogical connection between *simbo* often passes between two or more of these *du* linkages. A person thus tends to have numerous *simbo* scattered in many villages with some of which has own village may never have intermarried. Even a limited amount of intermarriage between villages may set up a good number of *simbo* links between them, as the links of filiation and siblingship to which the genealogies refer are often merely classificatory. For instance, the individuals numbered (3) and (4) in the above diagram were not true but classificatory siblings.

It will be noticed that the *simbo* category can be defined only by a series of negative rules. It is a set of distant kinsmen which remains when positively

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

defined sets of consanguines have been excluded. Marriage with the *simbo* cannot therefore be regarded as following the principles of an 'elementary' system of kinship. In practice it does not take many generations before the intermarrying groups forming a 'reciprocating pair' are married out, i.e. unable to supply any further partners to each other. In Sivepe, Jegase and Seho, even with only seven current intermarriages out of sixteen households and a reciprocating relationship of less than three generations, seemed to have nearly exhausted all marital possibilities. The difficulties of my interpreter, a bachelor belonging to the Jegase clan, will serve as an example. He was not allowed to marry the girl he loved (Seho clan) because she was a classificatory mother's sister's daughter. But there would have been equally grave obstacles if he had wished to marry into four of the remaining six Seho households, as the girls of these households shared either his father's or his mother's *hae*. The rule prohibiting marriage with a person sharing a paternal or maternal *hae* has an interesting randomising effect that should be briefly discussed. At least forty-two *hae* were used in Sivepe. The persons sharing these *hae* were by no means always close relatives. They might be wives of Sivepe men, and born in quite different village. Again, some people had many *hae*, four or five was quite common. In these circumstances the Orokaiva rule could never produce a stable system of four or more sections, as any section might at any time adopt a *hae* which would prevent marriage with another section. Furthermore, any portentous event, such as a woman falling to her death from a certain species of tree, would lead to the introduction of a new *hae* which might be adopted by several persons for reasons of sentiment or religious awe rather than the regulation of future marriages. Finally, individuals not infrequently transmitted maternal *hae* to their children, especially if they resided matrilocally or uxorilocally.

We conclude therefore that the rule of marriage with the *simbo* resembles a game of chance in which the odds become progressively more unfavourable, though the rate at which they become worse is itself determined by chance. In practice, therefore, every village played at many tables at once, not only because of ecological circumstances, vicissitudes of war and the need for alliances, but also because the rules of marriage themselves make no other strategy possible.

7. *Sex Affiliation*

It is an understood principle that under a system of restricted exchange the matrimonial destiny of brother and sister lies in the same kinship group whereas under generalised exchange it is different. Williams' data on the Koiari, as analysed by Lévi-Strauss, show that this tribe strongly emphasises difference of matrimonial destiny by the device of giving the brother a paternal and the sister a maternal clan name. Among the Orokaiva the principle of sex affiliation is likewise utilised, though far more feebly, to convey a simple message. The firmest evidence is found in kinship terminology and in the theory of paternity.

For the purpose of componential analysis of terms used in addressing affines, one dimension of contrast must be added to those given in the previous section. We shall distinguish sister exchange and *dorobu* marriages by the following code:

601 *Min*: Sister exchange marriage. *Dor*: Marriage 'by purchase'. Under this code, we may define the following terms:

1. *Terms principally used for addressing consanguines*:

epe:	Ef	M	Sr	Gl	A
	M	Sr	Gl	A	Min
tata:	Ef	F	Sr	Gl	A
	F	Sr	Gl	A	Min
ahije:	F	Jr	Gl	A	
	Jr	Gl	A	Min	

2. *Exclusively affinal terms*

atovo:	Em	M	Sr	Gl	//	A	Dor	
imboht:	Em	F	Sr	Gl	A	Dor		(Williams: *imboti*)
behere:	Em	SS	Gl	X	A	Dor		(Williams: *betere*)
dambo:	Em	SS	G–O	//	A			(Williams: *nabori*)
	Em	SS	G–O	X	A			(Williams: *betere*)
hovatu:	OS	G–O	A					
bi:	Ef	SS	G–O	A				
imi:	M	Jr	Gl	A	Dor			

601 602 The fact that a brother and sister, upon marriage, use different types of affinal kinship terms corresponds to a fundamental difference in their social position in relation to their affinal family. The brother, under a *dorobu* marriage contract, remains a perpetual debtor to his affines. He has deprived them of their most precious possession, a nubile daughter, without giving a woman in exchange. Even though he has given bridewealth and done bride service, and continued making prestations of many kinds, these propitiatory offerings do not wipe out the debt. The *imi* must therefore always act with humility and feel shame when he meets his *atovo* and even more, his *imbohi*. His sister, however, is under no such burden in her relations with her own affines. Her position is precisely the same, whether the marriage has been established by *mine* or *dorobu*. Her use of consanguineal terminology expresses her far greater familiarity and identification.

[591] It might be argued that such familiarity and identification is the direct consequence of patrilocal virilocal residence, but such residence arrangements do not always lead to the terminological differences I have described. These differences, however, are consistent with an ideology which emphasises the detachment of women from their natal clans and their close attachment to their mother's village to which they are supposed to move upon marriage.

842 614 Such an ideology is further emphasised by the Orokaiva notions about paternity. Orokaiva believe that a male child is formed in the womb as the result of sexual congress between father and mother, but that a female child is formed by 'the mother sleeping alone'. The male child therefore carries the 'blood' of the father, enabling the child to carry on the father's lineage, but the female child does not. She is still a member of the paternal clan but the connection is evidently viewed as social rather than physiological. Accordingly all females are named by their mother's consanguines, in contrast to males who may be named

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patriclan in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, . aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 of feasts, explaining why there is a rule that feasts may be held only when it is
793 ritually established that food will be plentiful.

Discussion of this myth made it clear that the feast is regarded as a purely temporary interruption of the state of strife, but that it can restore a temporary harmony if ritual is properly observed. The feast-givers must have an abundance of food; they must give everything they have to their guests. Their ancestors will then bless them; their enemies will remove evil spells from their lands, and their gardens will greatly prosper afterwards.

At a feast the Orokaiva became ritually and spiritually identified with their primal ancestors and re-enact the peace and harmony that existed in original time before strife began. It was, however, the traditional belief that such a state could not be expected to last; that after the feast strife would re-assert itself. The myth instructed man to hold feasts 'from time to time', the interval between one feast and another being characterised by food shortage and warfare. Peace was not considered to be a possible permanent state, though my informants remarked that since the coming of the white man it had become so.

583 We find a similar cyclical pattern in the marriage practices of social groups.
614 Let us take as the commencement of the cycle a crisis such as a military defeat or serious quarrel which leads a fragment of a social group to separate, move some distance away and establish a new settlement. Such a group will usually begin to intermarry with new groups using devices such as abduction and elopement. Gradually, they will set up a number of reciprocal arrangements with groups in the vicinity. When relations with reciprocating groups become very close, the time will come, usually after two or three generations, when marriages between these groups become impossible under the rules. At this point the former affines have all been turned into notional consanguines. Unless the two sides quarrel (which is not infrequent), the stage is now set for clan fusion.

It could be demonstrated, from a detailed analysis of Sivepe marriages, that the composition of both the Seho and the Jegase local clan groups may be explained by this process. Three of the four 'lineages' of which the Jegase group is composed have migrated to Sivepe since the beginning of the century. One of the waves of migrants already bore the clan name Jegase when they lived at Kiorota, their village of origin. The other two groups assumed it quite recently, after more than two generations of residence and intermarriage. Seho was welded together a good deal earlier than Jegase, so that the lineages are no longer commonly distinguished by name, and the ideology of common agnatic origin is far more firmly established. Seho must, however, have had four lineages at one time and I was able to establish the village of origin of three of them, as well as numerous intermarriages with the Seho of Sivepe after arrival. Intermarriage seems to have become more difficult between these Seho lineages about fifty years ago, and fusion must have been complete by 1925. A marriage between two Seho lineages arranged around 1935 was the last, and caused much annoyance though there was no common *hae*.

I am not suggesting that the process described here explains all Orokaiva clan fusions, but only that the marriage system does in fact turn groups of affines into consanguines and that these consanguines if they live close together tend to assume a common clan name. The importance of this process for the study of kinship structure lies in the fact that it is explicable neither by rules of restricted

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange alone, nor by rules of complex generalised exchange alone. If the Orokaiva had only restricted exchange, they would not be periodically forced to look for new groups with whom to intermarry. If the Orokaiva had only complex exchange (as Meggitt seems to believe is the case for all people of the New Guinea Highlands, viz. the Introduction to Glasse and Meggitt, 1969), then there would be no explanation for the various forms of preferential marriage that are still practised and the tendency to establish forms of dual organisation.

From one viewpoint we may say that the Orokaiva system is *'une sorte de faille de l'échange restreint'*, because the Orokaiva are forever trying to re-establish such a system. From another viewpoint it is true that, having entered into new alliances and thus moved in the direction of a system of generalised exchange, they always attempt as soon as possible to convert the new alliance into a moiety system. The fear of setting up alliances with new groups is still very strong today, in spite of wide experience with travel among foreign tribes when men take up wage employment outside their own district. They still marry wives preferably from their own village, or one of the villages with which reciprocal arrangements exist. There was not a single current Sivepe marriage that fell outside this pattern.

It is certainly curious that the chief effect of white contact upon the marriage system was to emphasise the tendency to the formation of moieties through enforced village consolidation. One would have expected that greater physical security, greater mobility and the contacts brought about through labour migration would have widened rather than narrowed the men's matrimonial universe. One imagines that processes of social and economic development must ultimately make an ideology of restricted exchange obsolete. Meanwhile, however, we observe mainly a movement in the opposite direction. Not only has government pressure unintentionally increased the opportunities for village endogamy, and moiety formation, but the combined teaching of government and mission has deprecated elopement marriages, and penalised the showing of hostility between affines. The war expeditions which led indirectly to so many marriages were stopped. The concern with pacification on the part of the authorities led to an even greater preference than previously for 'safe' marriages and therefore a narrowing of the marriage universe. My records show more marriages with partners from distant villages prior to 1915 than can be found over the last generation. It is therefore complex generalised rather than restricted exchange that was (unintentionally) discouraged.

10 *Conclusions*

This examination of the Orokaiva marriage system indicates that membership in corporate groups (the *hae*, the local clan group and the village) all have a significant influence on marriage choice, not only negatively, by prohibiting certain partners under a rule of exogamy, but also positively, by pursuing from time to time the establishment of forms of dual organisation. Certainly every individual is more or less free to choose between the two existing systems – direct exchange and complex generalised exchange. There is, however, a constant feature on the level of group relationships, namely the existence of reciprocating pairs of groups. Another constant feature is the temporary nature of these

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

582 614 583 reciprocal relationships which must collapse, due to the operation of the rules, after a few generations. This collapse may either take the form of a separation between the two groups or of a fusion into one local clan group. I have shown that the genesis of many Orokaiva local clan groups may be found in this process.

602 583 614 In the terms used in previous chapters one may categorise sister exchange and the women exchanges in reciprocating pairs of groups as phases of cycles of positive reciprocity. On the other hand, marriage by capture and elopement is a phase of a cycle of negative reciprocity. The long series of prestations offered by the bridegroom and the humiliations suffered by him have the effect of shifting the social relationship with the affinal group into a cycle of positive reciprocity. We therefore do not need to suppose that the bride is regarded as symbolically equivalent to *dorobu* as some African analogies might suggest. *Dorobu* is sufficiently explained as a magical device whereby a reversal in the mode of reciprocity (from negative to positive) is effected. The full range of gifts symbolises the wide scope of the resulting social relationship.

The theory assumes a profound dependence upon the affinal group. This dependence is in fact emphasised in many social, economic, political and religious situations. Ideally, an affinal relationship leads to the establishment of a pair of reciprocating groups. In the light of this understanding, it becomes clear that the exchanges analysed in the preceding chapters are consequences of the group relations set up by the marriage system. In chapter V, I showed the prevalence of a principle of dual allegiance resulting from the inheritance of land originally belonging to the mother's brother. I showed that a critical situation arises in the third generation when the uterine family does not renounce its residual rights but the social relations which give reality to these residual rights, viz. dual allegiance, becomes problematical.

583 614 The system would appear, indeed, to be so automatically productive of crises that one might wonder how it could ever have been maintained. It becomes much easier to understand if we recognise that the daughter of the marriage is expected to marry in the mother's brother's village. The land can thus revert to the people of the original village by a series of two uterine transfers. The system looks a little like the 'rope' of the Mundugumor (Mead 1935), and the latter may well have a similar explanation. It has a clear political utility as the dual allegiance pattern forms the basis of Orokaiva political alliances. It is buttressed by religious beliefs, as the spirit of a male child may be derived from either an agnatic or a uterine ancestor, by the process of reincarnation to which I have already referred.

Ultimately there would appear to be two possible outcomes of such hereditary land gifts: fusion of the reciprocating pairs of groups into one local clan group and separation on more or less hostile terms. These two outcomes correspond to the two modalities of the marriage system. The hostile modality is not a *failure* of the system but a natural and accepted part of it. Thus, the frequent migration of groups, as evidenced in Sivepe and many parts of New Guinea, should not be regarded as purely adventitious, but is structurally determined as part of a system which, as we have seen, could not work over a long period with a static population.[4]

The frequent exchanges of cooked taro reported in Chapter VI tend to keep

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

reciprocating pairs of groups in a state of pseudo-commensality. They share not only the land but also its products. The symbolic significance of taro, as set out in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social structure. Social structure, in the sense in which I am using the term, is most clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to the structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

245 ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not [578] paid. There was by this time a continuing dispute about the distribution of income from the coffee.

The Hoiwo'undi sub-clan, on whose land the Ongoho 578 coffee was planted, claimed a larger share of the proceeds 423 because the land was "theirs". As no agreement was reached, ●614 the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is unjust that Hoiwo'undi should have denied them access. No- [241] body, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

245 For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee there spasmodically. The income was shared within Hoiwo'undi. No weeding, pruning or other maintenance work was carried 731 out at this period. At the time of the Mt. Lamington eruption 241 in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations.(1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

Conclusions

All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A. [See Category 423, pp. 10, 25--Analyst]

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1)

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it.

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2)

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group.

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951.

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

121 that studied at Inonda - was the relationship between localized
125 landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

125 The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close kinsmen dependent on him (see Genealogy on p.52 for links between [614] households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

121 Our observations at Sivepe were supplemented by less systematic
[124] interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[829] [1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

628 [3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

423 [245] [428] It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes acquire trees of their own in this way but unless a woman is the sole surviving member of the agnatic group in which are vested the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated [685] that he would not expect his sister to ask for produce from his trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38). Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed [423] to retain by the deceased's co-resident kin who inherited the land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 614 On special festive occasions a localised patrilineal group has some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

A,[See Category 428, p.38--Analyst]

423 clansmen or other kin of members of the group. But this takes the
●[614] form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among
125 members of our sample for 6 weeks.[1] Approximate times were

[1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
● 614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
[164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening
[797] was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 [614] [619] This section outlines the range of wider common territorial interests and concerted political action among traditional groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case [266] [721] sharply distinguished from the standard forms of hostility between tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

619 721 634 have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] common patrilineal descent from a usually eponymous ancestor; they do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localized group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'. 851 611 ● 614

[621] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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[1] This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

[2] Data from Awala and Wasida villages (see Williams O.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

[3] Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationship to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

178 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [731] [621] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt Lamington (see Secs b. and e. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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[1] Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

[2] Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterized as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

C14 clan distribution can be obtained from the following summary of diverse information from the mountain Orokaiva and the Aiga.

621 The people grouped under the names Isivita 1 and 2 and Sasembata 1 and 2 numbered more than 1,600 in 1948 and occupied
614 44 villages. By the time of the eruption in 1951 the number of villages had been reduced to 27 (see Plant 1951: Appendix 3) and 40 clans had branches in one or more of them - there were at least 17 clan branches in villages other than these, representing 6 of the 40 clans. Eleven of the Isivita and Sasembata villages consisted only of members of 1 clan, although only 3 of these villages constituted a whole clan.

Williams (1928:124; 1930:101) suggests that a periodic increase in the 'multiplicity of small clans', caused by subdivision, is only 'in part neutralised by the dying out of older clans'. He says that there is a marked consistency in clan organization throughout the Orokaiva area (1925:406)[1] and in 1923 the generalisation that 'local and lineal groups seem to be largely coincident' was true of the Jegasi-Sarahu, i.e., the Wasida group of villages [648] (W.10, 31). In this context he adds that this pattern was altered [177] somewhat by the dispersal caused by a special factor: an attack by the first government patrol on Wasida and neighbouring villages. He does not record the relevant clan branches present in local groups other than the 15 Jegasi-Sarahu villages of the tribe, but 5 of the 7 clans listed are seen to be represented in more than one village. However, only 2 of the 15 villages contained 2 clan [36] branches. The average village consisted of 6 houses (normally nuclear families) and a single-boys' house (W.1), perhaps 25 people in all.

Data collected in 1924 among the Aiga show that there were 37 clans among the 50 villages of the tribe, with an average of about 35 members, or perhaps 'a dozen families', in each clan (Williams 1930:7, 101; 1925:418). Williams says that the 'normal', 'typical' or 'original' residential group was the 'clan-village' - clan and village were coextensive (1925:407; 1928:124; 1930:103, 310; and 107, 131) - but notes that in the larger villages there were 'often two clans or more' (1925:407). In fact, 12 of the 24 clans listed in 36 of the Aiga villages had 2 or more branches there (0.19, 20). Yet Williams might then have argued that in such instances fission would soon be completed and 'the normal conditions restored, viz. the clan locally unified and in

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[1] Cf. Reay 1953:110: Williams' information on the Aiga, Binandele and Tain Dawara tribes reveals 'a social organization practically identical with that of the Wasida people'; see also Williams 1930:7.

621 possession of its own tracts of land' (1928:125). In view of the
● 614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

614 Fighting within the tribe (emboge), though frequent,[1] was
578 governed by restrictive conventions absent from the conduct of
[721] deliberate raids (isoro). Organized aggression was rare and the deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilisation of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

[728] In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Saruhu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
614 temporary 'confederacies of clans', which conducted raids upon
701 the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

634 However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

621 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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721 [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo javo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

[73] food from their abandoned gardens which they found in good
[36] condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

[613] It was not long, however, before the Timumu people became
[36] involved in a protracted dispute with members of Kongahambo
[578] village (a new resettlement concentration near Sasembata), over
[177] garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

Meanwhile the Bebehupa had returned after the eruption to
[754] Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

●[614] (iii) The distribution of other clan branches. One Jegase
[36] clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Nahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

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[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

614 36 their previous location[1] and the territory of their traditional enemies, the Divinikovari and Togahau, but informants disagreed as to whether this occurred before or after Europeans had established control of the area.

Timumu clan had also originated well to the south near Sasembata (according to its members at Sivepe) but fairly early in the century part of this clan too occupied land around Soroputa nearer the Togahau. Other members of the clan live at Sasembata, Hamburata and Hakita and possibly other villages.

The ancestors of members of Seho clan in Sivepe are said to have moved to the nearby village of Hanimkambari from an area closer to the source of the Sohu River on Mt Lamington. While at Hanimkambari they clashed with the first government patrols in the area. About 1910 some of the Seho people established another village, Asina, nearer the present site of Sivepe, later moving to join Timumu and Jegase groups at Euru. These old villages have now been abandoned but Seho clan is represented in numerous other villages in the area.

c. Localized descent groups

621 Our comments on the clan and village have emphasized that the typical village consists of several groups from different clans. Migrations also have usually been by representatives of particular groups. We now turn to an account of the individual's kinship and affinal relationships within the village. This aspect is best approached with an examination of post-marital residence.

591 (i) Residence. Post-marital residence is ideally patrivirilocal. But where residence is found to conform to the ideal, any reference to this norm should be supplemented by further data on the links between co-resident kin if we are to give an adequate account of the kinship composition of local groups; moreover, adults have a wide choice of residence. In fact, of the 12 householders in our sample, 5 were not living in their father's village, although 1 of these was living with his adoptive father (his mother's second husband who was a member of her natal village); the other 4 were living only with matrilateral or affinal kin, or both in one of these instances.

It is significant that only 1 of the 7 men remaining had established his household in a village to which he was affiliated

[1] This location may not in fact have been near Sivepe. It may have been Oubisusu (near the pre-contact village of Wasida) which Williams (W.10) says Jegase people abandoned to establish Suin after the arrival of the government. This may have involved a move down the slopes.

591 only through his father and even in this case his sister, her children and his daughter subsequently married in the village so he is now also living with other cognates and with affines. The 6 other men are living in the same village as their father's kin, but for 4 of them this is also their wife's home village, for another it is also his mother's village and the last man is co-resident with patrilineal, matrilateral and affinal kin simultaneously. In several cases certain people fall into more than one of these kinship categories in relation to 1 person. Six householders have sisters who have married within the village.[1]

In view of the fact that such a variety of relationships is found in this group, Hogbin's and Wedgwood's outline of Orokaiva local grouping, which is based on secondary sources, does not seem relevant to present day social organization in this neighbourhood. They regard the Orokaiva as patrivirilocal[2] (1952-4:64 ff.) and suggest that the parish or local political unit is an exogamous patrilineal group whose members were strongly united and unready to assimilate outsiders. Like Williams (1930:131-3) they mention frequent exceptions to this rule of post-marital residence yet seem to underestimate the degree of variability in the composition of the village and to overemphasize the solidarity of the unilineal group and the importance of the preference for patrivirilocal residence and of exogamy in localized patrilineal groups.[3]

Williams on the other hand says 'the Orokaiva organization very nearly approaches a bilateral system, though in theory it is [582] patrilineal' (1925:407) and points to 'the laxity of marriage [614] regulations'. Even in the small Aiga clan 'exogamy is not a hard and fast rule'; preference for intraclan marriage is sometimes expressed (1930:131-2). It may be thought a 'proper thing to keep the women in the village' - which Williams here implicitly equates with clan - 'in the hope of building up its population' (1925:408).

621 A striking proportion of marriages are contracted between members of groups in close proximity. Data available for 35 marriages contracted over 3 genealogical generations by the householders of our sample, or by their parents, siblings or children, show that in 22 cases 1 spouse came either from the

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[1] Four instances of brother-sister exchange marriage among members of Sivepo were recorded (i.e., 8 marriages).

[2] Williams (1930:131) uses the term 'patrilocal'.

[3] The local organization in this neighbourhood seems closer to the category of 'osculant multicarpellary parishes' than any other (see also Hogbin 1963:32). However, we believe that the abstraction, if legitimate now is not the most informative.

621 current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. [602] But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

621 Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third 606 area (the Ope or Aiga), the village, consisting as it might of [578] intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

166 Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

614 (ii) Formal features of the local patrilineal groups. In dis-
613 cussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timumu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

614 wider grouping of Jegase clansmen in the neighbourhood, which we
613 describe as the 'dispersed clan branch'. This consists of the reputed descendants of Jegase men said to have once occupied together the settlement Simbehata-Totogata on the territory since associated with the group. It now has its largest single nucleus at Sivepe but includes also the Bebehupa men scattered in other villages, who recently separated from other members of the lineage now at Sivepe.[1]

Several writers have described one order or another of localized patrilineal groups in this census division as lineages (Belshaw 1951:2; Reay 1953:115; Horton 1962:3); in calling the Sivepe groups lineages, we have maintained some consistency with the terminology used for their formal counterparts in the survey at Inonda.[2]

Each lineage in our sample at Sivepe retains a name said to have been transmitted from some remote patrilineal ancestor and each shares a distinctive plant emblem, erahu, associated with its identity as an agnatic group (see Appendix D). Williams (1925:410) notes that the erahu of matrilateral kin is used by householders to mark their distinctive personal identity within their patrilineal group.

The adult male membership of lineages represented in the sample, excluding absentees who have moved from the neighbourhood, ranges from 1 (Arehu lineage) to 9 in the case of the Bebehupa members of the dispersed clan branch. Members of each group trace precise genealogical relationships to one another. All the Bebehupa men with one possible exception can do so. Genealogical memory is short. Ancestry can be traced back to men of the generation of

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[1] We should emphasize that the 'clan branch' and 'dispersed clan branch' are not groups at different levels of a hierarchical lineage structure and that the distinction is a device for discussing the Jegase groups in question.

[2] 608 At Sivepe we found that the use of the term ahije (or haije) was
184 not restricted to reference to the founder of a lineage as at Inonda (Crocombe and Hogbin 1963:17). Any members of Jegase clan are called Jegasetahije and the founder of the clan is also their ahije. Moreover, the term may be used in another sense both to refer to any of ego's male cognatic ancestors or to denote any (or all) of a man's immediate cognatic descendants. Similarly epihe, said by Horton to refer to a lineage seems to be used rather for ego's maternal uncle or grandfather, paternal grandfather, etc., epimane (pl.) being a term for a number of these kinsmen, not for a number of lineages or a clan. Unlike ahije, this term is not used for descending generations too.

A. [See Category 613, p. 130--Analyst]

613 the father's father of the oldest members of the dispersed clan
● 614 branch but the specific kinship relationships between these ancestors are forgotten.

The Jegase people do not name a putative founder of the dispersed clan branch. Nor do they assume that the eponymous ancestors of its subgroups were brothers. The single site of settlement of the ancestors of Jegase men in this neighbourhood is their only recognized evidence of common origin. But this focus of their common identity still offsets the more recent attenuation of intra-group relationships owing to dispersal. The lineages emerge as contrasted co-ordinate group-segments because their histories have diverged since they jointly occupied one territorial centre. There is no fiction of opposition between segments in genealogical terms.

Informants sometimes indicated a sense in which certain lineages are considered closer to each other than to the rest of the dispersed clan branch. This type of alignment seemed to be associated with a joint historical identification of these lineages with a part of their group's territory. It is possible that this in turn is due to a closer patrilineal connection now forgotten, but the people do not venture on this type of explanation.

(iii) Authority and land control in the descent group. Anthropologists have remarked on the indeterminate system of leadership in Orokaiva villages and descent groups and the lack of formal sanctions for authority, and government officials have found that continued lack of emerging leaders impedes the planning [622] of local government and village reforms. Williams discusses the 'absence of central authority' (1930:325) and the 'entire lack of any ceremony of chieftainship' (W.23): he points out (1930:104) that the titles for 'big men' (embo peni, embo dombo) imply only that they are 'men of importance who cannot claim to be leaders'.

[888] There was however, a recognized ascendancy of old men. The 'leader and ruler of any clan' was said to be the eldest of its men provided he was equal to the minimal requirements of the position and 'only in the larger clans, where there are well-defined family groups, does the question of hereditary succession appear, and then it is a somewhat faint appearance' (1928:125) - but only if the large clans are localized, for he says that where 'the clan is scattered, there is no single leadership' (1925:407). [622] On the other hand Reay (1953:115) says that 'the embo kiti, whom F.E. Williams called a "clan headman", but who is really more of a village headman whose position is hereditary within a certain lineage of the clan, has a limited authority which is backed by no sanctions' (embo kiti: first man).

624 Residential units created for administrative purposes seldom had a single focus of allegiance. In the case of Sivepo, the officials appointed by the government in separate villages were thrown together in one village and were later replaced by the local government councillor.

In the mixed post-eruption settlements too, Keesing (1951:9-11) noted conflicting authority between men of different descent groups. Leadership had to be bureaucratically imposed and 'there were no signs of a self-motivated [political] superstructure taking form other than the strengthening of scattered clan ties'.

613 554 Varying definitions have been given of corporate descent groups whose representatives might be said to have legitimate control of land among the mountain Orokaiva: Norton (1962:2-7) describes the embo dombo as a man 'who by virtue of being the senior member of a lineage and by having a superior knowledge of land matters, is regarded as the chief authority in the lineage', and says that the composition of the land controlling group varies from 1 or a number of lineages within the clan to the entire clan. [614] There are said to be as many embo dombo in a landholding group as there are lineages yet he later maintains that

> in each 'clan' a male member, by virtue of his age, his seniority in a descent group and knowledge of the land, has a recognized authority over any matters affecting the activities of the clan of which he is a member and particularly on land affairs. There may be one such man in a 'clan' or a number and he is known as the Embo Dombo.

Norton suggests that every male member of the controlling group is an onda mano (master of the land), and that the term has sometimes been incorrectly identified with a 'chief land holder'.

Belshaw (1951:2-3) states that the 'minor lineage', constituting all or part of a 'hamlet', shares land and works it together. But particular members 'through their slightly different relationship connections sometimes have senior claims to different areas of land' and a member is onda mano only insofar as the group is currently cultivating the land to which he has senior claim.

624 614 Plant (1951: Appendix 2) diverges more from Norton's definition of onda mano saying that there is one man with this title who is guardian and administrator of land, which is vested in the clan. Although these powers in land matters are more continuous and wider in scope than Belshaw maintains, Plant explicitly distinguishes them from the status of embo (peni) dombo (clan headman). He narrows them further to residual rights to make decisions, in council with clan members, on important matters concerning any of the areas which sections (or segments) of the clan in different

624 villages and individual members of these groups have come to
614 regard as their own, since 'usage tacitly becomes ownership'.[1]

Norton's use of enda mamo seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepe exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mamo or Norton attributes to the embo dombo.

[425] Among our recorded cases of land falling without direct lineal
[428] heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organisation is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebehupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 50 years.

613 He retains prestige and influence in many matters of concern to
624 his own lineage. He can claim prominence among more close agnates
[55] than a leading man of any other lineage in our sample, even though
614] the Bebehupa have now dispersed from Binduta to Garombi, Nahihita, Enkita, Awala and Sivepe. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Norton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

613 Actually no power has been delegated by the leader of their
624 lineage. They are de facto custodians to the extent that circumstances had forced them to leave their original village and each selected a place to settle convenient to one of the areas where he could exercise individual rights to patrimonial or other land. They could at the same time protect the interests of other members with landholdings nearby. Although they refer to this trust as Bebehupa land, the reciprocal obligations seem to have followed on a mutual agreement reached by particular individuals.

It is however in this group that the councillor still expects to exert most influence in the discussion of general affairs. Within it he has a recognized standing as the largest landholder. On this account his opinion and knowledge of the locality are respected also by Jegase men of other lineages. Besides, they share many boundaries with other Bebehupa men and with members of Binduta and Awala villages among whom he could conveniently serve as a representative of their interests, having closer ties with these villages than they.

Otherwise his powers outside the affairs of the dispersed Jegase lineage are related to his position as councillor. He and another councillor were elected by Sivepe, Binduta and Awala villagers before he left Binduta and attached himself to Sivepe. In this capacity he receives no more support from other Jegase men in Sivepe than from the rest of the village. In 1963 a young man of another Jegase lineage there, with considerable support from voters within Sivepe, was a rival candidate for councillor for the 3 villages but was unsuccessful.

613 We have so far discussed only the powers of Bebehupa men,
614 either in their lineage or in the clan branch. The other Jegase men enjoy rights of land control which are even more limited.
423 The proprietary rights now held by each householder of the Berekipa-Arehu part of the clan branch were acquired by him independently of the others. Although there is frequent interchange of planting rights and consequent discussion among them as to the allocation of their resources none of the 4 could claim of right an equal voice in the control of the others' land. Again, each of the 2 Timumu lineages had settled independently in the neighbourhood of Sivepe by acquiring land from sources inaccessible to the other.

Associated with the weakness of central control over land of smaller groups on clan branch territory is the complete freedom each landholder has in granting usufructuary rights, provided due consideration is given to the anticipated physical needs of any joint heir (i.e., a sibling) or of any dependents for whom he is responsible. Each thus maintains relationships with other

613 It is characteristic of the lineage that some mutual consideration is given by its members to each other's immediate expectations. This would appear consistent with the fact that it is only within the lineage that there is mutual anticipation among agnates that their land is the assured and exclusive patrimony of junior members.

Even members of a lineage with no single local nucleus in neighbourhood villages may be more closely associated in the tenure of land than are a large number of agnates living in one village but representing several different lineages. The Sivepe Bebehupa hold contiguous subdivisions of far fewer blocks of land with their co-resident agnates than they share with Bebehupa members living elsewhere, but considerably more than the Bebehupa outside Sivepe share with the other lineages. The dispersed Bebehupa claim that their members recognize certain exclusive though minor land rights and obligations (see p.55-6).

The members of a lineage do not trace an exact relationship with the group's founder but they attempt to reckon descent from the ancestor who is believed to have established their rights to lineage land. These rights were established in various ways.

The Bebehupa assert that the ancestors they are able to name acquired by right of original settlement the large share of Jegase territory occupied continuously by their descendants. On the other hand, when the Berekipa and Arehu tell of ways an ancestor gained control of parcels they now hold, the only common element which emerges is acquisition by reactivating rights once held by patrilineal ancestors.

614 No land is shared by the clan branch as a whole. With no significant areas of rainforest[1] or grassland in the area, all land has been claimed long ago as gardening land by lineages of various clans. There are considerable differences in the land areas available per head of population to the representatives of each age and their dependents in our sample. These areas are:

Bebehupa (18 persons), 64.1 acres, 3.6 acres per head)
Arehu (3 persons), 14.9 acres, 5.0 acres per head) Jegase
Berekipa (12 persons), 12.7 acres, 1.1 acres per head)
Sasewopa (1 person, not included in sample) 3.8 acres)

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1 The large area north of Sivepe covered by rainforest in 1953 (see Map 1) is land held by Soroputa villagers. Before Mt Lamington erupted, there were only 3 small villages (Soroputajamo, Togorisusu and Handarisusu) in the area between Sivepe and Agenahambo. These 3 villages of the Soroputa 'district' were in 1953 almost certainly still at the post-eruption settlement named Soroputa. Most immigrants to this village had not decided to return to their land nearer the volcano by 1956.

A, [See Category 102, p.5--Analyst]

614 Pekuma (9 persons), 28.2 acres, 3.1 acres per head)
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head) Timumu

(If Jegase and Timumu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timumu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 423 Three members of these clan branches stated that they intended to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).[A] Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).[B] One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).[C] One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).[D]

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 727 425 In former times it was not uncommon for a successful warrior to bring back the son of a victim he had killed during an intertribal raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepe. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A, [See Category 428, pp. 111-117--Analyst] B, [See Category 428, p. 112--Analyst]
C, [See Category 428, pp. 112-113--Analyst] D, [See Category 597, p. 60--Analyst]

597 rights he has already received from his natal group before he may acquire proprietary rights and become a permanent member of the adoptive group. He may transmit the former rights to his sons, themselves full members of the new group.

As long as he stays with this group and land is not in short supply he may inherit an equal share with his adoptive father's children. All rights are relinquished if he returns permanently to his natal group. If the land held by the adoptive group is scarce and extensively used by its members, he may become a permanent member of this group without acquiring rights to its land, especially if he was not previously related to the group or if he has access to other land.

An adoptee can continue to exercise his rights to land of his father if it is nearby but it may be difficult for him to retain land which is too far away to cultivate often and, unless he has close kin there protecting his interests, his rights and group identification tend to be contested.

The way rights are established by adoption, as with rights acquired by other processes, cannot be predicted far in advance for the actual rearrangment of proprietary rights in any particular case will be determined by the current relations between the parties involved.

425 597 By way of example, one man born into Ato clan is living with his wife's lineage, Bebehupa (of Jegase clan). He has no other close kin and Awala is the nearest place of residence of any member of his natal clan; he is widely and consistently spoken of as a Jegase man (d6J). When his father, a member of Heherita village, was accidentally killed when trying to mediate in a violent dispute between his clansman and Jegase people, his mother married a man of Arehu lineage. He was never given rights to plant on his foster father's land because it was under heavy use but he inherited some land near the Jegase holdings from his father. His wife also inherited land from her father, a Bebehupa man, who had no sons or brothers, and he has sometimes cultivated that.

However, due to serious illness, he is not active in the social and political affairs of his foster father's and affines' local descent group. As he is in a dependent and marginal social position and can use land of his own, his intermittent efforts to cultivate the Bebehupa land are not warmly welcomed by the leader of this lineage, regardless of the stated intentions of both the adoptee and his wife, a childless couple, to pass the land which each inherited to the sons of the Bebehupa leader.

613 614 In practice there are no land rights and obligations which the different Jegase lineages recognize toward each other as members

613 of the dispersed clan branch and the only effective rights held in
614 common by the Jegase members of Sivepe are those shared by members of the village as a whole (see p.22). A A

[423] In land matters, as in other affairs, the closeness of personal ties between specific individuals in the Jegase group is usually of more account than shared membership of the dispersed clan branch - whether or not these interpersonal connections are agnatic: the dispersed clan branch is not exogamous and no preference is expressed for marrying out. In fact the 3 lineages, Bebehupa, Arehu and Berekipa, have been linked by several marriages in recent generations. In many circumstances the resulting network of cognatic and affinal ties is more important than lineal ties in determining what decisions are made or what action is taken.[1]

When the land of another local lineage of the clan is used for gardening, the usufructuary rights are granted and exercised more often because the landholder and gardener have a personal kinship relationship than because they are neighbouring clansmen.

614 The web of interpersonal kinship is, of course, not confined to the local agnatic group but pervades relationships between the clan branches in this and other villages in the neighbourhood, as indicated by the data on the range of Sivepe marriages and on the complex ties which either spouse (or both) is often found to have in the village where the couple reside. For several decades a constantly changing network of cognatic and affinal ties has linked members of a number of kin groups who have continually grouped and regrouped themselves as local units like Sivepe and its forerunners.

The dispersed clan branch is a significant reference group in land matters even though it has no land held in common by all
[613] members. Responses to initial enquiries about land rights of members of patrilineal groups always indicated that the Jegase lineages together in some contexts consider themselves to be one unit which is distinguished from the branches of other clans represented in Sivepe and other villages. It is not easy to discern the real interests which this response reflects.

The dispersed branch of a clan is the most enduring group which is acknowledged by all to be associated with a particular territory; a person's affiliation to this group is the standard rationale of his presence in the village and neighbourhood in which he lives and works. Ultimately the general basis for the tenure by any group within the dispersed clan branch, of its own share of land

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[1] We noticed that the importance of non-agnatic ties is sometimes reflected in choices in the use of kinship terms.

A. [See Category 423, p.22--Analyst]

614 is the claim, however well founded, that this was part of the local ancestral land of men of their own clan.

The affirmation of the common territorial interest of the group of Jegase clansmen in the neighbourhood would occur only when we were proceeding with a series of enquiries both into the boundaries of the scattered parcels held by smaller groups or by individuals and into the source of their rights. This suggested that, in view of the frequency of individual transfer of parcels of land among non-agnates, the explicit assertion of the unity of the enduring group and its territory may be an ex post facto argument. This is both an affirmation of common grounds for legitimate land claims of individuals and lineages, irrespective of the actual origin of their rights, and also the most decisive means of differentiating clearly one parcel of land from adjacent holdings of members of other clans.

The appearance of a patrilineal ideology in this context might be expected of members of a loose-knit descent group with a territory interspersed with territories of other members of the local community in which an elaborate network of non-agnatic and affinal ties plays an important part in each individual's life. 571 It is by virtue of such interpersonal ties, hardly less than by 602 shared membership of a local patrilineal group, that close face-to-face contacts and bonds of friendship are maintained, mutual [425] assistance is offered, temporary rights to land are exchanged and, [420] by these means, claims to inherit land are established in many circumstances.

d. Patterns of landholdings

614 There are 60 blocks altogether which are either wholly or partly made up by one or more of the parcels held by the sample (138 acres in all). In general each block is held by members of a single clan branch but 3 are divided so men of each of the 2 sample groups hold sections. In other instances members of different clans and of other villages hold a contiguous section [613] of the named area but these were not measured. Eleven blocks were subdivided between 2 lineages of the same clan and just on half the total number of blocks contain internal boundaries between different householders in the lineage. No 2 householders are regularly associated with one another in the holding of rights in [613] the subdivided blocks.[1] The distribution of these and other parcels of the lineage land among its members is almost random.

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[1] In one instance 2 men (who are brothers) held adjacent sections of several blocks but these sections represent only a small proportion (by area or number of parcels) of the landholdings of either man.

A, [See Category 601, p. 52--Analyst]

614 For example the sons of 3 brothers, A, B and C (see d10J, and d9 and d8 on genealogy), together with another classificatory brother D (d12J) between them shared rights to at least 13 blocks of Bebehupa land. A and C held 1 block, A and B held 3, A and D held 2, A, B and C held 2, A, B and D held 2, A, C and D held 2, and A,B, C and D all held sections of 1. Data on B's and C's land were collected incidentally since they were not included in the sample and they may have other blocks which they share. D has other blocks some of which are shared with other people. The sections held by any one of these 4 men do not form significant patterns of contiguous holdings or even distinct patterns separated from the land of another of the 4. The spatial distribution of his sections reflects only the general distribution of the land of the Bebehupa in relation to land of other descent groups. Nor are the sections allocated among the 4 men according to soil types.

The arrangements for dividing the land between brothers are associated with the fragmentation of land held by individuals and groups. Informants could not account in any detail for the complex pattern of the distribution of parcels of land among different groups or even among a few householders of one lineage but would cite the practice, perhaps adopted by members of successive generations, that a man with a number of sons would divide his larger blocks of land and distribute the sections and other smaller [425] parcels among them as convenient.[1] A sequence of transfers of even a few of these small parcels between kinsmen not of the same lineage, is a further process which, although informants did not suggest the possibility, would readily produce fragmentation of holdings of descent groups; we came across no instances where reciprocal transfers were effected in order to consolidate either areas of land held by individuals or territories of groups.[2]

There is extensive interpenetration of the landholdings of clan branches in the neighbourhood. The largest continuous area of Jegase land is centred around the abandoned sites of previous settlement, particularly Simbehata and Pusahambo where most of their ancestors lived earlier in the century. Members of this

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[1] Two brothers in our sample each claimed a particular number of the father's blocks and sections for himself whereas they held joint rights in other blocks which could be passed on to their sons. However, we could not establish the reason for this distinction.

[2] We know of 1 man (d9) whose share in an inheritance of land from a distant clansman and maternal kinsman (see Appendix E, p.111) was organised so that the parcels he received were those which his clansman had held adjacent to his (the beneficiary's) own patrimonial land.

A,[See Category 601, p. 52--Analyst] B,[See Category 423, p. 111--Analyst]

614 clan branch claim that in the years before contact Jegase men extended their control over areas of land northward from this area toward the territory of the hostile Togahau and Divinikovari. They claim that this expansion was restricted by pressure from enemies but it is difficult to determine how often open conflicts preceded settlement in these outlying areas or how much it was limited rather by expansion of descent groups within the tribe or of other local groups.

The pattern of fragmented landholdings of local clan branches is said to be due to the fact that members of allied clans would move into an area of unoccupied land about the same time to clear contiguous areas. Any descent group which later found its holding no longer adequate for immediate needs and wished to open up new land would often find the surrounding land already settled and would move to the edge of the area so far appropriated as gardening land by the members of these groups. The explanation sometimes given for the existence of an enclave of one clan branch's land within another's is that a Jegase man, for instance, had lived with the Seho people holding the larger area and had cleared virgin land near them.

[476] The men exploiting new land often worked in association with some of their co-resident clansmen but the apparent lack of regular co-operation between members of patrilineal groups larger than the expanded family in opening up unoccupied land may account for some of the present scattering of clan branch land or even of the areas occupied by separate branches of 1 clan.[1]

[429] Informants stated that the initiative in establishing rights to previously unoccupied land was taken by individual cultivators and that the land which they acquired was retained by their lineal descendants.

[613] Some people suggested in answer to our questions that subdivision and further fragmentation of areas of Jegase territory, now identified with one or other of the lineages, occurred where large numbers in successive generations settled within, and made more extensive use of, one after another of the areas where an ancestor had been first to claim land or had at some stage effectively occupied it.

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[1] Norton (1962:6) gives a similar explanation of fragmentation and suggests that it occurred more often after the extension of administration control when the co-operation between members of separate clans formerly residing together for mutual protection was carried over into the activity of opening up areas further afield from their village.

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepo. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepe people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepo on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[621] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepo. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
M result in repeated changes of residence as it does among the
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[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

Table 5

Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)	
1. Planter is a member of lineage holding proprietary rights	15	9.17	
2. Member of a different lineage but same clan branch	5	2.57	
On land of planter or co-resident agnate			11.74
3. Member of a different clan within the same village	10	4.49	
4. Member of another branch of the same clan	1	0.10	
5. Member of a different clan and village	3	1.51	
On land of others			6.10
	34		17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.[A]

Chimbu or to influence the choice of a garden site; a Sivepe man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups.

A, [See Category 245, pp. 83-86; Category 248, pp. 87-93; Category 423, pp. 96-98--Analyst]

425 f. Local organisation and land transfers

(1) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

171 619 121 (3) the district had a compact territory (unlike the tribe) but its members were not all bound in mutual support in attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

614 171 121 (4) the Orokaiva clans which were scattered, often through several districts, did not have a single territorial focus and were radically different from a Chimbu clan; the latter is much more localized in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

121 171 In the present study an adequate discussion of the hypothesis requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. Much of our earlier discussion has dealt with residence and local organization and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organization between these Orokaiva and the Chimbu (or Enga, etc.).

171 621 121 Over and above these differences there is in the principles of organization of the local communities of the 2 peoples an essential similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

178 individual mobility among the mountain Orokaiva. We especially
361 doubt the generalization that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups hold proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the right-holding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Norton (1962:12) argues that new practices in the transmission
[241] of land rights have emerged with the expansion of coffee growing
[178] since 1956. Our evidence, however, shows that the significant
[177] change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 Norton expresses a view widely held among government officers[3]
●614 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

423 landholding groups such as the clan to require adjustments in the way they exercise their land rights. He feels that persons with 614 authority over the use of a clan's land seldom interfere when it [425] is used for food gardens, but exercise their prerogatives more strictly when permanent cultivation is proposed. He therefore considers that registration clearly defines individual rights for the first time and that this is done by public decision of the whole clan.

We would maintain that the clear differentiation of prescriptive rights of individuals and small groups in Sivepo owes nothing to [425] cash crops or allocations by land controllers or the whole clan. The function of the registration scheme is to guarantee these rights for cash crop land and to provide facilities for transfer which are no less flexible than those which already exist in the area.

423 Meek (1949:285) points out that new methods of establishing security of tenure should follow the current local tenure practices because 'the manner of recording rights necessarily affects the form that landholding may take'.

In mid-1960 39 people with interests in Sivepo land lodged applications with a Cadet Patrol Officer for registration of land usage rights in 8 blocks of land (perhaps 10 acres). Under the Higaturu Council Registration scheme the legality of the registration was uncertain. The Orokaiva were not aware of this and accepted registration as binding. Many people thought that the application forms they received and filled out constituted registration (which they did not). Late in 1963 an officer conducting land registration visited the village but the people claimed that he would not register their blocks because he was dissatisfied with the lack of preparatory boundary clearing. The type of information sought by officials in completing the application forms reflects assumptions about clan ownership which do not fit the actual tenure situation.

[425] If the holder of prescriptive rights should wish either to have them confirmed as permanent rights or to transfer them to one of his kinsfolk any official recognition of an artificially large group as holders of residual rights could provide a precedent for influential persons in that group to extend their sectional interests to include land held by others in the group.

Similarly encroachment could occur if members of a group assumed to hold rights jointly are allocated permanent rights without attention being given to the interests of persons who in fact hold the land in severalty.

The distribution of power would be realigned with a stereotype, transfers would be impeded and litigation increased unless the

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Tegahau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

with some of their co-residents; nevertheless, common residence implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional entities.[1] Marriages between members of the different clan branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

(i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot necessarily trace, common descent from a usually eponymous ancestor. Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

(ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is characterised by 'big men' (embo dombo) and an ascendency of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

(iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be changed at any time. The composition of individual households within the village likewise varies, although the basis is generally the nuclear family. The distribution of clan branches through a number of villages is closely related to access to the group's land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

and the remainder in either shares or savings accounts. Four of the eleven households had no monetary assets at this time, while six had no cash in hand.[1]

Table 4:5

Sivepe: monetary assets of households, January 1965
($)

Household no.	Cash	Savings bank	Shares OCGS	Shares Oro Ltd	Clan savings account	Total
1	24.00	-	10.00	16.00	-	50.00
2	15.00	-	-	20.00	-	35.00
3	-	8.50	-	10.00	-	18.50
5	-	-	-	-	-	-
6	-	-	-	-	-	-
9	-	10.00	-	10.00	-	20.00
10	-	-	-	-	-	-
11	-	-	-	-	-	-
13	8.00	-	10.00	10.00	no data	28.00
14	5.10	-	-	-	-	5.10
15	4.00	20.00	10.00	-	18.00	52.00
Total	56.10	38.50	30.00	66.00	18.00	208.60

Savings accounts were not popular on account of their low rate of interest; five members of the sample had previously held accounts but closed them, while only one (the head of household 3) deposited any money during the survey period. Shares in the local companies, the OCGS and Oro Ltd were much preferred. The latter conducted an intensive capital-seeking campaign during 1964 with marked success, and the fact that it caters primarily for the indigenous community (operating its own trade stores and supplying privately-owned ones and in mid-1964 opening a cinema in Popondetta) aided its popularity. However, its failure to declare a dividend that year resulted in considerable disappointment. The OCGS declared a dividend of 5 per cent.

Two members of Timumu clan had contributed to a clan savings account which was supported mainly by clansmen in another village, Soroputa. In 1964 it was decided to use the funds to establish a trade store in that village. Even if implemented it is doubtful whether this store would be profitable, since Steamships Trading

[1] Coffee is not bearing at this time of year and only one man works the rubber plantation at a time, so that little cash was entering the village when the inventory was made.

[TEXT CONTINUED ON PAGE 48]

C14 454 443 Company already operates a trade store with a liquor licence close to the village.

(e) Other household property

511 The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petos (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string [824] bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

[301] * For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

512 461 week of 45.8 hours. Likewise 68 per cent of the 18.7 hours spent in subsistence gardening is confined to taro cultivation and 99 per cent of the 13.0 hours on household tasks to cooking. Apart from clearing, in which women are responsible for 'sweeping' up the debris and much of the secondary burning, the time Olga devotes to the other productive subsistence activities is minimal.

Sixty-four per cent of the time spent on social obligations comprises visiting, an even greater proportion than for Gorukari although Olga did not change her place of residence at marriage.[1] One of her married daughters lives in a village about half an hour's walk away and, with her husband away in the police force in Port Moresby, there is a great deal of inter-visiting.

Although without cash crops of his own, Olga's husband worked some coffee belonging to their eldest son during the year, the son in turn confining his cash cropping to the rubber. Olga assisted her husband largely in pulping and drying the parchment and in its subsequent marketing. However, her involvement with the external sector of the economy is largely confined to the external agencies, particularly the church. On account of her household responsibilities she is seldom away from the village for more than a night or two at a time, while the emphasis placed on subsistence activities (83 per cent of her total activity time) results in both her and Gorukari's spending more time on them than either Linton or Palmiuus, in spite of the latter having longer activity weeks. Finally Olga spends less time on non-productive tasks - only 21 per cent compared with 38 per cent in the case of the two men.

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Rodney Gill. Rodney Gill is Gorukari's husband's brother and, at the age of 18 years, the eldest child still residing with his parents. While both parents are often disabled through sickness and rely on the support of Gorukari and her husband, Rodney Gill's behaviour pattern does not suggest any tendency to assume domestic responsibilities. With a mean activity week of 43.7 hours he spends only 48 per cent of his time in subsistence activities and 53 per cent in productive work. Typically, adolescent aspirations are directed to wage employment and many young men leave the village. Of the six males in the 15 to 19 age group at the beginning of the year, one joined DASF at Popondetta

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[1] She is a member of Areku lineage, Jegase clan, and her husband a member of Barekipa lineage of the same clan. Intra-clan marriages are not uncommon, a contributing factor in this instance being that Olga is believed to be descended from a Togahau war captive (Rimoldi: personal communication).

In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed oeise - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

The term handa, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

Viesora are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A.(F Category 574, p.26--Analyn)

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington 197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (19?? and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

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When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilised' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognised in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Genesis of the Yega Scheme

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The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

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On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was re-opened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

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The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

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Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A, [For fig. 5 see Category /82, p.46--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blockholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

Work patterns

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613
178
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464
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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocos production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

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(614)

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8½ hours, with a mean time on the two days of 6½ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)	
Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes
Aubrey, 29.7.64 (unassisted)	
Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

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614
621

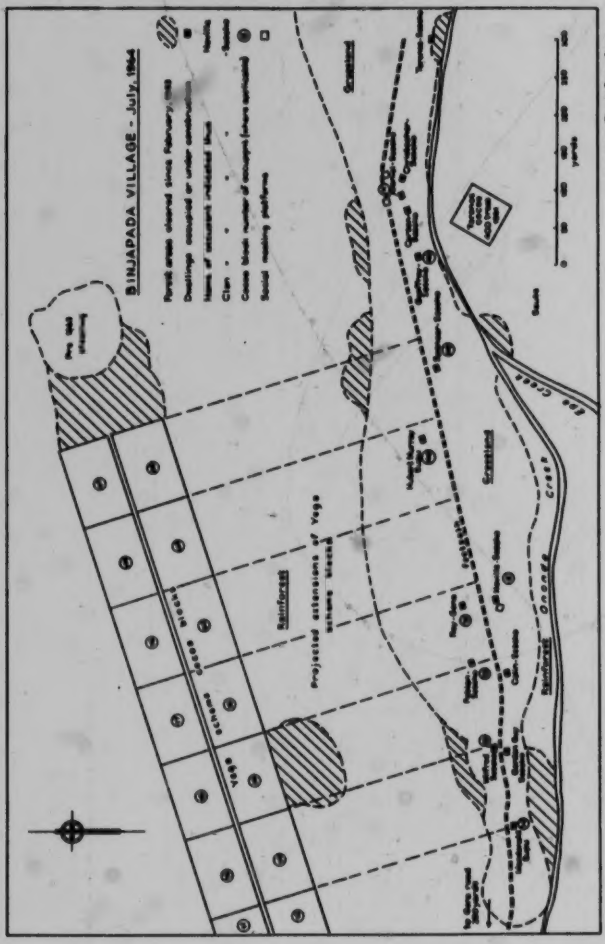
Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Goube	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Goube	Kurou	S

[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

[423] ** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[425]

10: Dakoyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega
Ononda



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487
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Figure 6

245 423 All plantings were made on the south side of Ononda Creek in the area which the Yega claimed because it was their Bowori (extinct) clan land but which the Ahora also claimed by right of conquest. The Yega decided to reinforce their claim by occupying at least a portion of the disputed territory (Fig.7).

241 245 423 614 613 A large area of rain forest was cleared for food gardens in addition to the cocoa blocks planted. Permission to clear was in all instances given by the land controller, Nixon Kairembora. Swiddens were cleared by members of Sambori (1), Jambapa (5), Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights to the land on which these swiddens were made would then be vested in the lineages to which the individual gardeners belonged.

166 361 245 241 One instance of change of residence as a result of these new clearings was noted. Three Jambapa brothers built their homes on Jamberoda grassland near which they had cleared a swidden and planted food crops and cocoa (about half a mile south of Ononda village and well into disputed Yega/Ahora territory). These houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 423 In March 1964 a group of 23 Yega men, only one of whom had been allocated a cocoa block at Ononda, decided to clear another large tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 423 614 602 The Berojou scheme differs in two major respects from the earlier Yega schemes at Ononda. Firstly it was sited on land over which certain clans, Jambapa and Kurou, had recognized rights of allocation and secondly all members of the group concerned in the development were members of these two clans or had close affinal ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 [242] [484] [489] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 519 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

[474] [241] grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden [433] [484] houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organisation were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

[797] Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the C.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the C.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican [797] Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organised the [614] Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

[657] Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

[484] All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

is still transferred in most marriages, including those which take place in a church.

Polygyny was accepted but probably not frequent in traditional Orokaiva society. In spite of mission opposition there are still instances of polygyny but the great majority of marriages are monogamous. Marriage outside the clan is considered preferable but there are numerous cases of marriage within the clan. The village is not considered an exogamous unit. Marriages are usually patrilocal but this is not a definite rule (cf. Williams 1930:130-3).

III

In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptised in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

[1] See map, p.84A

[2] See diagram, p.85B and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

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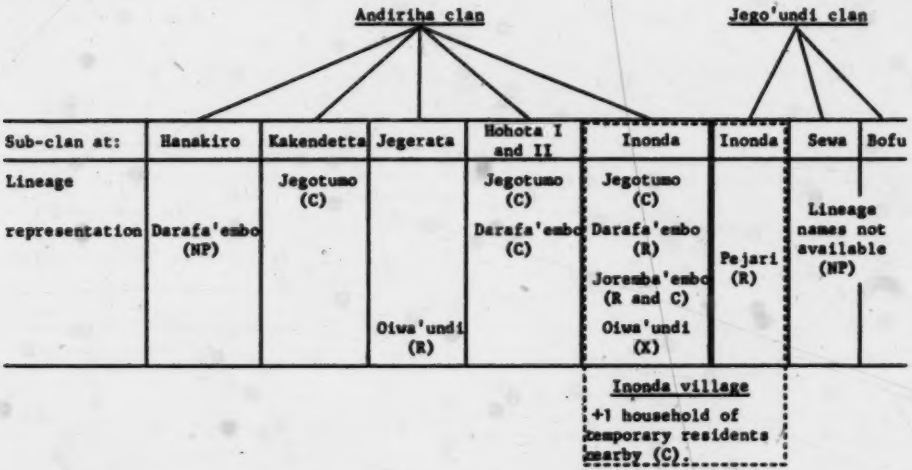
Diagram showing locations of Andiriha and Jego'undi clans and social units comprising Inonda



C = contributed to bride-wealth
R = received share of bride-wealth

NP = took no part in the exchange
X = sole male representative was youth adopted into groom's father's household

Table 1

583 Bride-wealth paid for three women married into, and two marrying out of Andiriha sub-clan, Inonda

	In 1	In 2*	In 3	Out 1	Out 2**
Approximate date	1961	1958	1953	1960	1964-5
Cash	$74	$22	$40	$22	$74
Pigs	2	?	1	?	nil
Traditional valuables, utensils, etc.	Yes	Yes	Yes	Yes	?
Food	Approx. $12	Yes	Yes	Yes	?

* Woman with illegitimate child.
** Required of a man from Madang District for a girl of Joremba'embo lineage.

584 suitor (cf. Williams 1930:31, 141, 144, 149-50). The people of Inonda were aware of high prices paid for women near Port Moresby[1] and the bride's father, a man of high prestige in the area, may have been attempting to raise local prices towards the level of prices in urban areas.

The groom and his father complained about the price but accepted it as a challenge which must be answered by payment.

Between the time the price was set and the time it was paid, bride and groom spent much time together. For about three weeks the groom and a classificatory sister lived at the bride's father's farm where they helped with farm work. One weekend the bride, groom and bride's father went on a fishing expedition, indicating that the bride's father had consented to the marriage.

583 About a month before the bride-wealth was paid the groom's father died and the responsibility for organizing the payment 614 passed to the head of the Darafa'embo lineage of the Andiriha 768 sub-clan in Hohota II. This man will be referred to as 'the organizer'. Ideally the responsibility would have passed to a senior man of the Jegotumo lineage in Inonda, but the groom himself was the most senior. The responsibility could have devolved to the senior man of Jegotumo lineage in either Hohota I or Kakendetta, where Jegotumo was represented, but the only Jegotumo

1 Bride-wealth exchanges in Hanuabada, Central District, at the time were mostly in the range $600-$1200 in cash plus an equivalent amount in traditional valuables (M.D. Oram, personal communication).

man in Hohota I was in his late twenties and had insufficient status in the Andiriha clan to organise the payment. There were two senior Jegotumo men in Kakendetta but the responsibility went to neither, probably because Kakendetta was 11 miles from Inonda and the groom's father's household had little contact with them. Inonda people said that the reason the position of 'organizer' passed to the head of the Darafa'embo lineage in Hohota was that about the turn of this century his father and the groom's paternal grandfather had fled together from Aramba to Hohota and that the common history of the two families placed the organizer in a special relationship with the groom (Crocombe and Hogbin 1963:14).

Several times during the two and a half months over which the bride-wealth was accumulated, the bride's father embarrassed the groom and his supporters by saying publicly that they were slow to meet the payment and that he thought they were incapable of doing so. About five days before the event the groom and his supporters arranged with the bride's father that the exchange should take place on Friday, 30 August at Hohota II.

On Thursday, part of the food contributed by Hohota people was stacked in a shade-house adjacent to the organizer's house. That evening four men from Hohota went to Inonda to assist the Inonda men to carry to Hohota a large and valuable pig which had belonged to the groom's father and was to be part of the bride-wealth.

At 6.00 a.m. on the day of the ceremony the groom's supporters began to gather at the organizer's residence at Hohota. All were assembled by 10.30 a.m. The food they brought was stacked near the shade-house and the traditional valuables on the verandah of the residence. Both bride and groom had spent the night at Hohota but they took only minor parts in the preparation of the bride-wealth.

At 6.30 a.m. a party of five women, including the bride's father's two wives (one of them the bride's mother) and the bride's mother's brother's wife, stood outside the organizer's house berating the groom's family for failing to have the bride-wealth completely ready. These women had come to collect a preliminary payment, kina, contributed by close relatives of the groom and distributed amongst close relatives of the bride to indicate to the bride's family that she is marrying into a family of wealth. Some cash, traditional valuables, household utensils, food and several pieces of bark-cloth were handed to the women, who stacked them into string bags and returned at 8.30 a.m. to the bride's father's house, two miles away.

At 7.30 a.m. other members of the Jegotumo lineage and people who had come to the ceremony smeared the groom, his stepmother, stepsister and other close relatives with a paste of mud, ashes

583 [85] These people were expected to return a feast of similar size for the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 613 The economic consequences of the payment were greatest in four households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 614 This was not an ideal situation in which to investigate the extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 602 The range of genealogical connections between the groom and heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 621 Co-residence in a village may also have some influence. Some people, though not all, from each of Kakendetta, Hohota I, Hohota II and Urio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Mosou, Ajoro, Sewa or Jegarata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

166 people were shifted about two miles eastward to a site adjacent to the wartime Inonda airstrip. People of several other villages (including Ajoro, the home of the Tandai'undi) were also resettled in the same area for safety. We will refer to this as Inonda II. During 1952, when the danger of further eruption was considered to be over, they shifted their village to Inonda III which was approximately a mile closer to their planting lands. In 1956 the people who had been temporarily resettled for safety at Inonda moved back to their respective villages. The local people then moved to their present site, Inonda IV, which is midway between their food gardens and their coffee plots.

Demographic and social structure

● 64 At the time of our survey, of a total population of 45 living in 8 households, 23 were members of the Andiriha sub-clan and 5 members of the Jego'undi sub-clan. The remaining 17 belonged to other clans. Of these 17, 8 were wives of members of the Inonda sub-clans and another 7 were relatives of these wives. The remaining 2 were the children of the sister of an Andiriha man who had come with their mother on a visit.(1) The number of persons in Inonda households ranged from 3 to 10 with an average of 5.6. There were 4 nuclear, 1 polygamous and 3 extended families.

The term 'clan' will be used to refer to the large patrilineal Orokaiva descent groups, each of which claims descent from a common ancestor but cannot trace it in fact. Each clan has a common name and a common plant emblem or erahu.(2) The clan name (frequently that of the founding ances-

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(1) Of the 17 persons who were not members of the Inonda sub-clans, 4 came from the Kongaria clan of Urio village and 7 from the Ororobe'undi and other clans of Hoberita village. This reflects the marriage links with these villages as six of the nine wives came from Urio or Hoberita. Marriage links with Urio are said to have been maintained for more than two generations, but those with Hoberita began in the last decade.

[58] [68]

(2) Sometimes known as henaha or henaia. For a detailed description of the nature and function of the anaha see Williams, 1923. The anaha of the Andiriha clan is tinadi, any plant tied in a particular knot.

tor) is suffixed by the term 'undi (the descendants of a particular ancestor) or haha (which is sometimes shortened to ha). (1) In conversation the Orokaiva often refer to the jawo (name) and speak of members of the one clan as embo jawo vahai (people of the same name). Alternatively, one's clan is frequently referred to as one's orope (men's house, as each clan group within a village occupied a separate men's house). More commonly, however, people used the English word 'clan' even when speaking in the vernacular.

Clans are usually dispersed and in the case of the Andiriha separate sub-clans are to be found in at least five villages. We use the term 'sub-clan' to refer to a local branch of a clan (i.e. within a particular village or a cluster of neighbouring hamlets). Orokaiva people use the terms quoted in the last paragraph for sub-clan as well as for clan, and distinguish sub-clans when necessary by adding the name of the village in which they are located. Clans and sub-clans are not exogamous but people express a clear preference for marriage outside the clan.

A sub-clan is usually divided into a number of lineages each of which has a name and an erahu which is distinct from that of the clan as a whole. (2) To determine a man's lineage it is usual to ask the name of his haije (the ancestor or ancestral name from whom he traces). Several persons were unable to trace their precise relationship to other members of the same lineage. Genealogies are short and no person could name any ancestor earlier than those who settled in Sambogo about fifty years ago; and only a few of those could be named. The lineage was said to be strictly exogamous but an instance of marriage within a lineage was noted. Some lineages are further

(1) These terms refer to descent groups as a whole. An individual male uses the suffix ja and a female ja. Thus a man of Jego'undi clan is referred to as Jegoya and a woman as Jegoja.

(2) The plant emblems of the lineages are as follows: Jocumbo'embo lineage, maiwa emblem; Ciwa'undi lineage, mara emblem; Damba'embo lineage, kowa emblem; Jegotumo lineage, mara emblem; Jego'undi lineage, diwara emblem. These emblems are all plants, whereas that of the clan as a whole is a particular knot, and any leaf, vine or grass may be used to form it.

613 divided into sub-lineages.

614 There is no unitary leadership of a dispersed clan. The highest level of unitary leadership is usually that of the sub-clan or of linked co-resident sub-clans (as at Inonda), though we have heard of instances elsewhere in the Orokaiva area of leaders of senior sub-clans having some authority in respect of junior (i.e. more recently formed) branches of the same clan which are located in separate villages in the vicinity. The [622] leader of a sub-clan is referred to as the embo kiti or embo kiti ijigari (first-born man or first-born leader), and of a village as the embo dombo (big man). The embo dombo of a village seems always to be embo kiti of his own sub-clan within it. These are descriptions of particular statuses and are not formal rank titles.

614 622 Leadership of the Andiriha sub-clan was shared between three individuals in a delicate balance. They were also in practice the leaders of the village as a whole for the Jego'undi are in a subordinate position. The first of the leaders was the eldest surviving son (by adoption) of the previous sub-clan leader. He does not now live in the village, but about two miles away on the Girua resettlement scheme. He pays frequent visits to the village and exercises considerable influence, particularly in land matters. He speaks of himself as the embo dombo of the village and embo kiti of his sub-clan. The second was a man descended from the Hohota branch of the Andiriha clan (which claims exclusive rights to a tract of land there, whereas the Inonda section of the clan does not claim exclusive rights to its land). He was a forthright, assertive man and was recognized as sub-clan leader for some years during the absence of the first man mentioned. He lived in the village and still claimed to be embo dombo and embo kiti (until his death during our stay) on the ground that the former leader had "left the village". The third leading citizen is the eldest surviving child of the first-born son of a former sub-clan leader (now deceased). He is at present the elected councillor for Inonda and neighbouring villages in the Higaturu Local Government Council. Being a young man he does not claim to be leader of the sub-clan but generally defers to his elders, though he often acts as their spokesman.

64 The Jego'undi (or Perohaha) sub-clan has only two adult males. They are brothers and the younger of them is sub-clan leader. The elder brother has no children and is a retiring personality, but even the younger brother appears to exert relatively little influence in village affairs.

CHAPTER 2 - LAND TENURE

The concept of the tribe as a group of related clans exists among some of the Orokaiva people, but among the Inonda villagers at least it seems to be only vaguely defined and to have little if any relevance to land matters. The Andiriha and Jego'undi sub-clans are referred to in some reports as belonging to the Ihane'embo tribal group and although Inonda informants recognize some affinity with the other clans in this group, they say that the name Ihane'embo came into use only after European contact.

Land rights were found to be distributed at the following levels of social segmentation:

The rights of social units

The sub-clan: All land investigated in and around Inonda was found to be associated with one or more sub-clans.(1) It is a common misconception on the part of outside observers that any particular piece of land can be associated with only one such group. This is certainly not the case in the Inonda area and from superficial enquiries it appears that the Inonda case is not unique.

Where more than one sub-clan claims rights in an area the rights of each are determined by two factors - the circumstance under which the original division of rights took place; and the temporal, demographic and social changes that have occurred since the original division of rights.

This may be illustrated by the Inonda situation where

(1) Several atypical instances have been noted wherein rights are held by the clan as a whole rather than by a particular sub-clan. This may be exemplified by the case of the Asumbu lands which are described on page 23.

rights to the majority of the lands are shared by three sub-clans: Tandai'undi, Andiriha and Jego'undi.(1) In view of the extent of warfare and population movement in the past, it is likely that various clans or sub-clans have occupied this land at various times(2), but the passage of time erodes away the historical facts from the memories of the living and what is important today is not the facts themselves so much as the traditionally accepted version (or versions) of them. The accounts given to us accept the Tandai'undi as the 'original' rightholders in this area, and the Andiriha and Jego'undi as having acquired certain rights which are perpetual provided occupation is continued and relations between the sub-clans remain amicable. The stability of residence which resulted from the abolition of warfare has no doubt resulted in a longer term identification of particular groups of people with particular areas of land, and this identification can be expected to become increasingly closely defined with the passage of time and the increase of population.

As noted on pages 14-15, the Tandai'undi transferred rights in the Inonda land to the local Andiriha sub-clan in return for valuables, pigs and women. The precise rights obtained by this transfer are not clear for some contingencies which have subsequently arisen (such as cash cropping) were not foreseen at that time and other conditions were tacitly understood in terms of indigenous concepts of rights to property. The deal undoubtedly gave the Andiriha rights to plant food crops, hunt and forage, though it seems likely that they were not given rights of disposal outside the clan (and probably not outside that particular sub-clan which negotiated the deal).

Presumably the rights of the Andiriha can be expected to strengthen with the passage of time and continued occupation, but even though they have now enjoyed nearly two

(1) It would not be surprising if, in the event of an investigation by the Lands Commission, Urio people also claimed rights to this land (i.e. if they wished to challenge Mr. Colvicks' earlier decision - see page 15).

(2) This seems to be general in the Orokaiva territory according to Williams, 1930:151-60; Chinnery and Beaver, 1915 Appendix 2.

generations of undisturbed occupation and have reinforced their position by frequent marriage connections and subsequent kinship ties with the Tandai'undi, they still recognise that some residual rights are held by the Tandai'undi. The extent of these rights cannot be closely defined except in relation to specific situations. For instance all parties seem to be agreed that the Tandai'undi could not plant the Inonda land without the approval of the leader of the Andiriha sub-clan and in fact they neither plant nor hunt there. Likewise, it is agreed that if the Andiriha died out their rights would revert to the Tandai'undi. Although there is no disagreement about rights of this nature, trouble would almost certainly arise in the event of incidents (such as cash sale of land to an outside group) for which there is no traditional precedent.

It is perhaps significant that most of the Inonda people have planted their cash crops on the other side of the Girua river on land to which the Tandai'undi have no claim. Moreover, a recent survey by the Lands Department shows Inonda as Tandai'undi land, though the Inonda people consider this to be an error.(1)

According to the oral history of the Inonda people, they have acquired land rights at various times by discovery and settlement of vacant land (at Aramba), by permissive occupation (at Wauta and Sambogo) and by customary transfer (at Inonda). Conversely they have lost rights by defeat in war (at Aramba) and by voluntary abandonment (at Wauta and Sambogo).

The Inonda people have shifted their village at least eight times in the course of the past fifty years and on the first three occasions they shifted to completely different areas of planting and hunting land. With each shift they have acquired some new land rights and lost others. In no case have they acquired all rights to the lands they moved onto and in no case have they lost all rights to the lands they left.

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(1) Map held by National Mapping office entitled, "Land Tenure in the Ihuse'embo Native District, Orokaiva, Northern District" prepared by W.A. McSmith 7.4.1959.

When they were originally chased out of Aramba the defeated people fled but they still claimed residual rights in the Aramba land and hoped that their former rights could be re-activated at a later date. Had government control not been introduced at that stage they may either have fought and regained the land, or have abandoned it to the conquerors. In fact, although the conquerors had control of the land, the question of residual rights lay in abeyance until the Mt. Lamington eruption in 1951 when most of them were killed. Thereafter, the people of Inonda (along with Andiriha and Jego'undi people living in other villages) began to reassert their dormant residual rights by paying periodic visits to the area to gather wild foods. The Andiriha clan have delegated planting and hunting rights to the Havoni'undi and Umburahaha clans which live nearby at Sewa.(1) They claim to have made it a condition that only subsistence crops be planted. Any attempt to separate the residual rights of the various sub-groups of the Andiriha and Jego'undi from one another, and from the rights of conquest of the Sangara tribes, and from the rights of occupation of the Havoni'undi could only be made on arbitrary criteria.

During their stay with the Sauhaha clan, the Andiriha acquired gardening rights which they relinquished on their departure. Since then the Andiriha have frequently acquired wives from Sauhaha and have thus reinforced their earlier connection by these affinal and maternal links. As the Inonda area is short of sago, which grows in abundance on Sauhaha land, these relationships enable the Inonda people to continue to make sago on Sauhaha land.

In the course of their residence at Sambogo, members of the Inonda sub-clans cleared garden sites and planted sago, coconut, breadfruit and other trees from which they still collect fruit. The Inonda people claim that as their forefathers

(1) The Jego'undi lands at Aramba are looked after by members of that clan who live at Bofu and Sewa. The claims of the Andiriha and Jego'undi to the Aramba area were challenged by survivors of the Sangara people shortly after our field survey was completed. In recent months all parties have increased their "acts of use" in the area. The case is now before the Native Lands Commission.

cleared the virgin forest, any of their number could return and take up residence on the site of their previous village and again use their abandoned gardens (which are now covered with second growth). The area is too far distant to be planted while living at Inonda. On the other hand they recognize the residual rights of the Tandai'undi to the garden land, and the exclusive rights of the Tandai'undi to hunt in the bush and fish in the river. It is apparent that some rights in the area are retained by each party, but it is probable that the Inonda people could not in fact resume residence there without further negotiations with the Tandai'undi.

About twenty years ago a man of the neighbouring village of Urio who had no sons of his own (nor any brothers with sons) gave a large block of land named Sesehauta, which lies adjacent to Inonda, to his sister's sons - the members of the Jego'undi sub-clan of Inonda. In an attempt to avoid future dispute he held a feast to mark the transfer. At the feast, the Jego'undi gave pigs, taro and traditional valuables to their mother's brother and these were distributed among his clansmen. About two years ago the people of Mosou came, at the suggestion of Native Affairs officers and with the approval of the Jego'undi, and established their village on this land. They did not make any payment, nor do they propose doing so, though they do make occasional informal gifts of betel nut and sago to the Jego'undi. Although most Mosou people still plant on their own lands a mile or two away, several of them plant on the Jego'undi land. The Mosou people do not hunt on this area as they have ample other hunting land, but the Andiriha of Inonda sometimes do. This is another case of land rights being shared by several clans and sub-clans - the donors who retain residual rights, the donees who hold some current use rights, the Mosou people to whom some rights of residence and land use have been delegated, and the Andiriha of Inonda with whom the Jego'undi sometimes share hunting rights and who consider that, as the dominant sub-clan, they should be consulted on questions of disposal or transfer of rights to the land. Neither of the two adult members of the Jego'undi in Inonda have sons, though one has daughters. The future rights to the Sesehauta land will presumably remain in the balance for some time.

Other sub-clan rights include those to burial grounds and tracks. Once land is set aside and used as a burial ground it remains vested in the descent group even after it is no longer used for burial. Burial grounds may, however, be a post-contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

The lineage: The Andiriha sub-clan of Inonda is divided into four lineages but the Jego'undi sub-clan consists of a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

502 The household: This usually functions as a single unit of food production and consumption. In the case of a polygamous household, however, each wife plants and cooks separately, and in extended families which accommodate one or more unmarried adults these usually have individual food gardens though their produce is pooled and cooked for the whole household.

502 423 Land rights exercised by the household as a unit are restricted to usufructuary rights for the production of short-term food crops. This situation is analysed in more detail in the following section.

423 613 614 The individual: The land rights of individuals are predominantly a function of their status in relation to particular sub-clans and lineages. From data collected in Inonda we can recognise four distinct statuses:

(1) Primary membership: This is the status of persons who were born or adopted into the descent group and who are domiciled within it. Of the eleven adult males in Inonda, nine were primary members of either the Andiriha or Jego'undi sub-clans. A marginal case not included above is that of the ex-leader of the Inonda village who recently shifted to take over a farm about two miles away on the Girua resettlement scheme. He visits the village frequently and is still treated for most purposes as a primary member.

(2) Contingent membership: This is the status of persons who have been primary members, but have subsequently left the village (either at marriage or otherwise) to live elsewhere. They do not normally lose all their rights by doing so, though the nature of their rights changes. A contingent member, it seems, can generally regain primary membership by returning to reside in the sub-clan (as frequently happens with widows, returning migrant workers etc.). We are aware of eight contingent members of the Inonda sub-clans. Four of them are women who are married to men in other villages. Of the four men, one is away at work in Port Moresby, one is living in his mother's village and will probably remain there, one lives on the land of his deceased sister's husband in another village and the fourth lives in the village of his mother's new

husband and uses the latter's land.

(3) Secondary membership: This status is held by the children of contingent members of a descent group. Most people can claim secondary membership of their mother's father's lineage and clan. The degree to which the rights associated with secondary membership are in fact exercised appears to depend on the distance from the mother's village and the amount of contact with her family.(1) Although no attempt was made to compile an exhaustive list of secondary members of Inonda sub-clans, incidental information was collected on eight such persons. The children of secondary members of a descent group may be regarded as distant secondary members but, although in exceptional circumstances a distant secondary member may exert land rights in that group this is in fact a rare occurrence.

(4) Permissive membership: This is the status of those who reside in a sub-clan or lineage but do not belong to it by birth or adoption. They are admitted under particular circumstances and generally only for such time as they observe the conditions appropriate to that admission. Of the eleven adults in the village who have only permissive status with the Inonda clans, eight are wives of Inonda men, one lives with his mother who is now married to an Inonda man and the remaining two are a married couple who have two daughters married to Inonda men.

In summary, primary members are linked to the descent group by both descent and residence, contingent members by descent and previous residence, secondary members by descent only and permissive members by residence only.(2) There are of course marginal or special cases in each category, but each person in Inonda was found to fall into one, two or

(1) Most instances cited related to the taking of produce from the land of the mother's father or brother.

(2) The sub-clan membership status of adults in Inonda was as follows: household heads, 7 primary and 1 permissive members; wives, 9 permissive members; others, 3 primary (2 men, 1 woman) and 2 contingent female members (the latter visiting).

three categories in relation to particular clans, i.e. a man may be a primary member of an Inonda sub-clan and a secondary member of his mother's clan; or a married woman may be a contingent member of her father's clan, a secondary member of her mother's clan and a permissive member of her husband's clan. Each category may be sub-divided according to sex, for the rights of males in each category are in some respects different from those of females. Hunting rights, for example, are never exercised by women though occasionally a husband hunts on the land of his wife's sub-clan. Likewise food gardens are seldom planted by a married woman on land in which her lineage has proprietary rights; and men quite often harvest tree crops from their mothers' lands, though women seldom do so.

The people of the Andiriha and Jego'undi sub-clans of Inonda recognise all other members of their respective clans, wherever they reside, as kinsmen. Although distant kinsmen visit for feasts and ceremonial occasions, only those persons who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

The status of adoptees varies according to individual circumstances as the following examples show. About fifty years ago the Andiriha (who were then living at Sambogo) attacked a village of a neighbouring but unrelated Managalas tribe. Some of the inhabitants were killed and others fled. Two small boys who were captured were adopted by an Andiriha

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha sub-clan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

Table 3

Rights to food garden land

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Nature of planter's right in his garden land	No. of gardens	Area of gardens (acres)
1. Planter is a primary member of the rightholding lineage	20	9.8
2. Member of a different lineage but within the same sub-clan	18	8.3
3. Member of a different lineage and sub-clan within the same village	10	3.7
4. Member of a different lineage but within the same clan (though in another village - Hohota)	3	1.6
5. Permissive rights only (belongs to a clan which is not represented here, but lives in Inonda village)	2	1.1
6. Permissive rights only (as for 5, but gardens located in another village - Hohota)	2	2.6
Total	55	27.1

423 only permissive rights at Inonda or any nearby place. He has
241 been living at Inonda for some years on a temporary basis and
613 is dependent for gardening land on his relatives by marriage at
614 Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

423 - Informants claimed that a man in need has the right
241 to make gardens on the land of the mother's brother though this
604 is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

423 Hunting and foraging rights: Any primary member
644 of the Andiriha and Jego'undi sub-clans in Inonda can hunt or
621 forage on any portion of the Inonda land which is covered with
224 virgin bush, kunai grass, or second growth. Likewise any
[313] villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

423 transfer at a feast shortly after the grandson finished his school-
614 ing. Along with the rights he was given the obligation to look
224 after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

423 All Inonda people, along with all members of the
224 Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the
628 purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

423 Fishing rights: For the purpose of fishing rights,
226 the Girua river is divided into sections, each of which is
621 associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

423 The Inonda portion of the river is held jointly by the
226 Andiriha and Jego'undi sub-clans and any primary member of
614 either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

CHAPTER 5 - LIMITATIONS ON PRODUCTIVITY

Features of the tenure situation which inhibit productivity

614 423 518 The overlapping claims of various clans and sub-clans cause uncertainty as to the rights of each, in particular with respect to lands planted with cash crops. To illustrate this point we will quote several examples. During our stay in the village one Inonda man had a temporary job as foreman in a nearby construction camp. Due to completion of a particular phase of the work some workers were dismissed by the European overseer and these included some Tandai'undi men. These men then came to Inonda village and reminded the foreman that Inonda was "their" land and that if he wanted to remain on it, he had better get them their jobs back. This foreman has no cash crops and claims the reason for this to be his fear of trouble with the Tandai'undi. With one exception, nobody has cash crops on Inonda land. The Inonda people dare not take the case to the Lands Commission in case judgement is given in favour of Tandai'undi, in which case the Inonda people could lose all their rights.(1)

614 423 425 518 Those Inonda people who have cash crops in production have planted them on the far side of the Girua river. The land where they are planted was occupied until about forty years ago by the Endehi'undi clan. The Endehi'undi were defeated in war shortly after European contact and the few survivors scattered to various villages where they took up permanent residence. This land was apparently abandoned and not used again until 1952 after the Mt. Lamington eruption when some people of the neighbouring Jau'undi clan of Hohota village cleared the bush and planted food gardens there. After the Mt. Lamington danger passed most of them returned to their home

(1) The Native Lands Commission in the Territory appears to have awarded title on a basis of historical precedent much more frequently than on current needs or recent arrangements. It would not be surprising if, in the event of a case before the Commission, rights were awarded to the Tandai'undi (in pre-contact times, of course, occupation of the land and the relative strength of the two parties would have been the main criteria).

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

[657] [609] The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

not legally binding.(1) In fact, however, the parties to this dispute assume that the officer concerned does have the necessary power to enforce the agreement, and thus it is effective for the present, particularly as it has been reinforced by registration of the land with the council. The Endehi'undi nevertheless intend to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

Our third example concerns the Jego'undi sub-clan of Inonda. Neither of the two adult members of this sub-clan has planted cash crops. One of them had prepared ground for planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Buata v. Havini in which it was ruled that although Regulation 39 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soupe v. Westiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

assistance. The system of investigation followed by the Commission is very detailed, and accordingly in the period of three years since the Commissioner was posted to the district only about five disputes have been settled. Already 34 other cases are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

In the meantime the area is left without adequate machinery for the definition of rights and the settlement of disputes. Indigenous leaders, whether councillors, clan heads or other elders have no legal right to determine disputes, and although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1)- Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

"(a) ... keep the land clear of all rubbish

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer....."

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

The question of inheritance of rights to land registered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

The aim of the registration scheme is to promote the planting of cash crops on individual plots with some security of

156 472 554 (614) [794] [631]

Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods. [574]

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

463 Seniority of birth. This seemed to be of positive significance
472 for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] Traditional leadership roles. The only position of traditional
[571] leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 Non-traditional leadership roles. It is to be expected that
472 Orokaiva entrepreneurs will hold responsible and respected posi-
571 tions in their community. The table below shows a positive
621 correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

657 423 (3) Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by ordinance of the Territory, of conversion of title to an individual registered title. (Hasluck 1960:1021.)

Five bills embodying the new land policy were passed by the Legislative Council in 1962-63. The most significant of these from the point of view of the individualisation of tenure were the Land Titles Commission Ordinance 1962 under which the old Native Lands Commission was replaced by the Land Titles Commission, and the Land (Tenure Conversion) Ordinance 1963 which sets out the procedures to be followed in tenure conversion (see Appendix A). The Land (Tenure Conversion) Ordinance 1963 was brought into operation on 3 December 1964. It embodied safeguards against fragmentation in that no land which is less in either area or frontage than a certain minimum may be registered, and no more than six persons may be registered as joint tenants or tenants in common of any interest in land.

The five current ordinances relating to land allow village people holding land under customary tenure three alternatives. First, they may continued to hold the land under customary tenure. Second, where a group has undisputed control of a piece of land and desires a more formal recognition of its rights it may secure title under native custom by having the land registered as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962. Third, individuals or groups of not more than six persons may apply to convert land previously held under customary tenure to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963. This action may only be taken with the approval of all those holding customary rights in the land to be converted, and where all clearly understand that the land is being placed outside the jurisdiction of traditional custom.

Land tenure

423 614 Among the Orokaiva there are no land rights at the tribal level. Each tribe is divided into a number of clans, each of which is further composed of a number of sub-clans, which are usually dispersed over the tribal territory. Each sub-clan holds rights to specific areas of land. Within the sub-clan rights are held by individuals and groups of individuals.

Thus the traditional Orokaiva system was not one of 'communal tenure' and individuals as well as groups held rights to land.[1]

[1] Ironically, it appears that by registering areas of land as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962 the Administration is introducing communal holding of land where it did not exist previously.

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[572] occupies a separate house. In pre-contact times villages were
[621] large, probably because clan members clustered together for mutual protection (Williams 1928:155). However, in 1928 Williams noted a growing tendency for small groups to form independent settlements.
[614] Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621] [614] Ombi and Tara contain two clans, Mumu and Kusi. The Mumu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Mumu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]
B [See Category 133 pp. 40ff.--Analyst]

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

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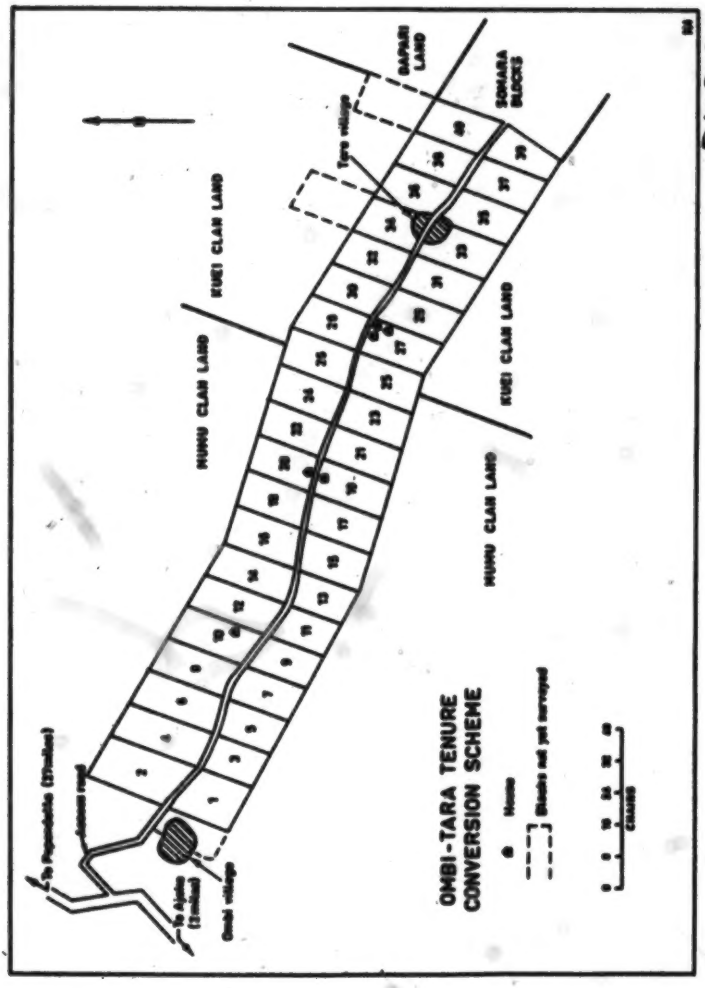

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242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There *appears to have been no opposition.*

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

657 abolished by agreement of the two Ombi-Tara clans,[1] including both
423 rights to the 800 acres which have been converted and to land
425 remaining outside the scheme.

614 Each twenty acre block is now held under individual registered title by one man, the blockholder. No rights are held in any block by the clans or other entities.

Lands held by members of the Mumi and Kuai clans are still separate, and a large tree stump continues to mark the boundary between them. However, while individuals formerly had some rights in clan land held under customary tenure the land outside the conversion scheme is now held communally by agreement of clan members.[2] The clan leader has control of the unconverted land and his approval must be gained by anyone wishing to cultivate it.

However, each man is considered by the villagers to have the presumptive right to clear the bush on unconverted land behind his block in order to extend his planting as far as the clan boundary. He may do so without consulting the clan leader, and regardless of who held rights to the land under the old system. This right is not recognised in law, and appears to be derived from traditional practice. A similar presumptive right of extension at the rear of one's block was agreed upon by the Yega villagers (Dakeyne 1965:136).

The conversion process

657 The Department of Agriculture carried out a preliminary survey
423 of the land to be converted in July and August 1964, clearing bush from what was to be the access road and along the boundaries of the blocks. During December 1964 and January 1965 field staff of the Land Titles Commission, assisted by Department of Agriculture personnel, completed the surveying and marked all corners with cement and wooden pegs.

657 Thirty-five applications for blocks had been formally lodged up
423 to 9 February 1966 when the Land Titles Commission conducted its
425 hearing. No objections were raised so unless there is an appeal within ninety days, individual title in fee simple would be granted to each of the thirty-five on 9 May 1966.[3] Eight more men wished to apply in the near future. Since only forty blocks were marked out, three of these eight men intended to apply for blocks as yet unsurveyed.

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[1] See p.27 ff for some problems raised. A

[2] In law it is regarded as being held under 'customary tenure'.

[3] There were no appeals. Titles had not been issued at the beginning of November 1966, but it was expected that they would be issued soon.

A [See Category 423--Analyst]

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kuei clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kuei land, reportedly because of a shortage of Mumu land. The Kuei clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 Since conversion the blockholders have each planted an average
423 of three and a half acres of high yielding rubber and some have
182 cleared a further two or three acres in preparation for further planting.

311 Most households are interplanting their food crops with the
241 rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 Those people whose blocks are closest to the village have tended
423 to remain in the village. Those with more distant blocks have
182 either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land
[361] close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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1. Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
199 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.A

A [See Category 423--Analyst]

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member n[ot] [614] only of a parish but also of groups of cl[oser] [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his 602 relatives for heavy work such as the felling of 464 big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout [578] the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P.3-B]

614 423 000 No male member of a Yega clan has any rights whatsoever to land outside the consolidated block of parish territory. All Nasioi, on the other hand, are members of widely dispersed matrilineal clans. Many of them, both men and women, have rights to cultivate land far from their village of residence. For a Nasioi, the focus of loyalty is not the clan as a whole but the small segment of it with which he (or she) is intimately associated, in the parish where he lives.

177 [245] The degree to which contact with Europeans has affected each group differs greatly. The Northern District of Papua where the Yega live is the scene of recent rapid development in cocoa planting by both Europeans on large plantations and by indigenes on small-holdings. The Yega are a relatively well-educated group of people but they have a record of failure in the production of cash crops. Many of the younger Yega have therefore left the parish territory to work for wages in skilled and semi-skilled jobs in the towns. 241 433 [464] 000 Fewer Nasioi go to work in the towns but many have worked locally as plantation labourers. Recently copper has been discovered within their territory and now many men work for the mining company which offers higher

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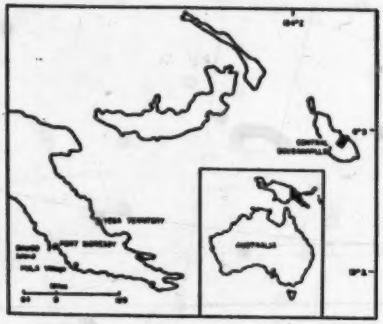

Fig. 1. Location of the three case studies

[P.4-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

a Land Titles Commissioner today has the difficult task of adjudicating the rival claims of two or more groups to the same areas of forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

The Yega parish is composed of eight named, exogamous, localised clans most of which are divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan has a different totemic emblem which serves as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

An abbreviated table illustrating the Yega social structure is given in Table 1.

[P.6-B]

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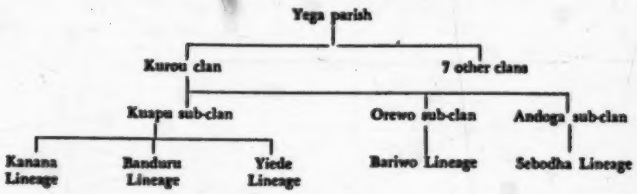
TABLE 1
Abbreviated outline of Yega social structure



[P.6-C]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The 613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is 614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown 614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 3) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with them. These affinal kinsmen thus acquired [428] cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.17-A]

241 is maintained today because, the Yega say, 423 it makes the work lighter if you have someone 613 to gossip with, and to share a watermelon or a smoke during rest breaks. The effect is that, at any one time, many people of a sub-clan are using land to which they do not hold cultivation rights.

241 The granting of temporary rights to plant 423 a food crop is normal procedure. A right-[602] holder frequently grants such rights to affinal [614] kin of a different clan or even to an affinal kinsman from a neighbouring parish. An outsider granted such a right would *never* consider that he had any permanent right to Yega [431] land. He would simply give the right-holder a [426] gift or, if asked, would lend land in return.

226 The Yega are coastal people and expert [462] fishermen. Fishing is an exclusively male occupation and fish have always been an important food. Eleven reefs are known by 226 the Yega to exist off their strip of coast; rights 423 to fish over these reefs are held by the clans 614 whose ancestors first discovered them. Any [431] person who catches fish over a reef belonging to another clan must give a gift from his catch to the right-holders. Fish are caught by many [199] different methods but the commonest nowadays is by skin-diving with a home-made spear gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

241 a) *The shifting-field cycle.* The average 242 length of the fallow period for twenty-one swiddens investigated was 7·4 years. Such a figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

353 [415] *tapa* cloths, also worn on ceremonial occasions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A [302] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet [227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 [461] [614] [627] [584] A *gaga* is simply a talking platform where men sit for a chat, a chew (of betelnut) or a smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* performs an important social function for it is here that quarrels are settled, marriages arranged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women. [287] The traditional body covering for both men and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout [171] the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to 323 church on Sundays. The Yega and their neighbours are expert tapa-makers but they did not [289] have either the suitable clay or the art of pot-making. They used to trade their *tapa* for pots 439 from Ambasi, thirty miles to the north, and from Wanigela, 100 miles to the south. This [178] trade has now declined because everybody can

[P 11-A] [TEXT CONTINUED ON PAGE 12-A]

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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

361
[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male

361
614 members of a clan lived together with their wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement west-

361 ward along the beach continued until about 1930. People were encouraged to move by the increasing effectiveness of Government control

[657] and by the establishment at Gona Mission of
[791] a school and hospital staffed by Europeans.

[P.12-B]

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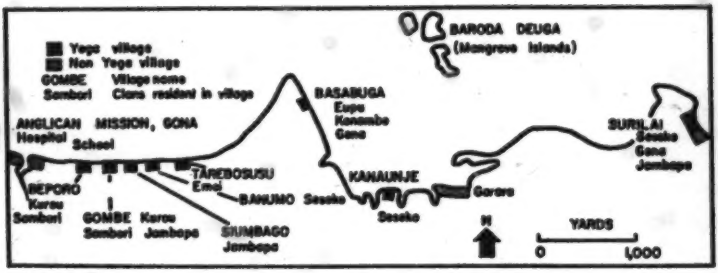

[P.12-C]

Fig. 9. Settlement pattern of the Yega in 1960

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361
614
491
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797

Fig. 12. Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11

(P.14-A)

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
245 body, therefore, had to be compensated for
the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

20: Schwimmer E-5
(1966-1967) 1969
QJ23 Orokaiva QJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [715] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

[p.132-A]

851 marriage is in force; he is, in addition, considered to be the genitor of all her male offspring though not her female offspring.

842 It is obvious that the Orokaiva know the 'basic fact' that when a man and woman have sexual intercourse, the birth of a child often follows and that the latter, in common experience, does not occur unless preceded by the former. The recognition of this fact does not impel them to adopt a genuine 'theory of physiological paternity'; their basic theory remains that of spirit entry which is deemed essential to the conception of all children, whether male or female. The notion of physiological paternity is introduced only to solve a somewhat different problem: why the sexes differ in physiology and legal status. The answer runs as follows: the male is believed to have a special quality (*ivo*), not shared by the female. This is a strength or power enabling the male to play his distinctive roles and it is transmitted by a man to his son in the 'male blood' which enters the mother in intercourse. This is the *ivo* of the lineage. As women do not receive this type of blood, they cannot carry on the lineage: filiation is patrilateral. Having only the 'weaker' blood of their mothers, they become women.

842 562

842 Leach's essay on 'virgin birth' does a good deal to illuminate the Orokaiva case. The Orokaiva, like Christians and the people of ancient Mediterranean societies, believe that some births are the consequence of sexual congress whereas others are not. Both cultures have a further theory according to which some children may be conceived by a 'woman sleeping alone'. Furthermore, both systems explain conception in these circumstances by a spirit entering a woman and fertilising her.

614 182

Now, as I understand Leach, in all quoted cases of parthenogenesis, a great social distance separates a father of egregious status from a mother and maternal lineage of much lower status. In some of the quoted cases, the offspring inherits the father's high status while in others, the offspring remains (as in the Trobriands) in the lower 'stratum' of the mother. The somewhat unusual Orokaiva case fits this pattern quite well. Woman is not destined to stay in the clan but to be abducted or to elope and settle elsewhere, but her children will always covet the clan's land and her brother who is expected to love her is

614 182 [842] not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled clan patrimony together. It is therefore tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 [813] [824] I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories implying causal connexions. It is notorious that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *taupa* leaves fall while the main taro crop is coming up and postulate that it is the dropping *taupa* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepa people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepa people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepa to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepa
621 and Inonda are of different population size, Sivepa having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that
[614] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Seho, Jegase and Timumu and modern Sivepa still contains roughly the same family alignment except that the members of the Timumu clan are now calling themselves

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garoubi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, [554 dancing expert and some others. One of these experts, the feasting [622 expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility [614 for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari embo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepe; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
614 which is the dominant clan of Sivepe. In the circumstances, the law
of reciprocity demanded that the Seho clan backed Jovareka as a suitable
man to be village constable. His status was accordingly greatly
enhanced.

625 The scope of his role, however, may easily be exaggerated.
According to Samuel, he was put through a course of training of one
day. He was told about how to take a case to court and how to get
and give evidence. He was told not to belt anybody, but handcuff
them. He had to check that houses were built properly, that sago
roofs were replaced and lavatories built. He also had to see that
the men cut the grass in the village and the women swept, and that
the road built by the government was properly maintained. Each
village had its own stretch of road to look after, and this was sub-
divided into sections for each of the men. This summary tallies
[364] with the statements of other informants. We note that some of the
included items (such as the women sweeping the village, the replace-
ment of old sago roofs) are traditional activities and hardly required
police supervision. Other of the included items, such as the building
of lavatories, remained a dead letter until after the eruption, and
it was not until 1965 that all houses actually had lavatories.
[794] Furthermore, it is only now, with the fear of sorcery diminishing under
the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had
anyone jailed. No, he had never used the handcuffs. He had never
brought anyone from Sivepe to court. He had sent people from other,
surrounding villages to court. Tax was never collected past Sangara
in his day, he said, implying that his record would not have been so
serene if he had had to collect the head tax. Two Sivepe men had
actually been taken to court during his period of office, but not by
him; it was done by a visiting patrol, for not tending the roads, but
they were let off as they had just returned from a period of plantation
work. Other Sivepe informants told me that the village constable made
little difference to the way of life of the people and this must, I
[627] think, be conceded. Nonetheless, Samuel was evidently called in as
a mediator in quarrels in other villages and due to his influence,
some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the
731 village constables as they were the middlemen between government and
the village people, responsible for the distribution of food and
supplies and the setting up of village organisation in the camp. The
camp consisted in fact of a number of villages, closely together, in
which the village constable was much more in charge than he ever had
been. Permission to go back to the home area to check whether pos-
sessions had remained undisturbed and to collect food, also had to be
given through the village constable who was put in charge of all such

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

● 64 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early 794 converts belong to the Jegase clan. Plant emblem groups (or lineages) are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepa, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

In Inonda, all religious organisation was in the lands of the 794 transport driver and one-time councillor, who played the role of lay- 184 preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepa were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepa by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepa.

361 Comparing Inonda and Sivepe, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepe shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 Within a village, two kinds of kinship group larger than the
592 elementary family may be distinguished, namely the javo wahai (clan)
616 and the hae (lineage, or plant emblem group). We may also distinguish
two kinds of residential group, the occupants of a bande or side and
614 of a bande or house. On the nature of the clan I shall be brief here,
reserving detailed documentation for my doctoral dissertation. It
seems to me mainly a political unit, held together by--in some but not
all cases--belief in common descent from a single patrilineal ancestor,
by the common name (javo) by which they call themselves and which they
call out when slaying an enemy or a pig or in other moments of great
stress, by the recognition of obligations towards and claims upon
others who bear the same clan name. Rimoldi (1966: 33) is right when
he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used
to denote collectively all persons sharing the same plant emblem.
The clan name (javo wahai) is transmitted only patrilineally, but the
transmission of the hae is more complex. A person regards his hae,
which may be any plant or part of a plant, or another natural substance,
as a part of his own identity. He may respect it in the manner of a
totem but such avoidances seem always to have been to some extent a
matter of personal choice. (Williams, 1930: 127-218) The hae is
used in a number of social contexts as a mark of identity. Williams
seemed to believe that a hae was the distinguishing mark of a clan,
but later investigators (Crocombe and Hogbin, Rimoldi) take it to be
the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

613 in terms of a rigorous genealogical model, which is unfamiliar to Orokaiva, but in the sense that both are identified with the same plant or substance and thus very closely akin.

While clan affiliation is, in practise, determined by political [614] considerations, and a person may decide, upon calculations of family advantage, to assume a new clan name, the hae is utterly unpolitical and hae affiliation is a better indication of true blood relationship than membership of the same clan. In the hae, but not the clan, a kind of hierarchical classificatory principle may be found. To explain this, I should first point out that most informants I interviewed had at least four hae, two paternal and two maternal ones, and not infrequently I recorded as many as three paternal hae, and a total of five. Many people, when using a hae as a mark of identity, for instance on the road, to show they had been there, would actually use two hae plants. For instance, almost everyone in the district used the hae called sasaha (a grass), but if another hae, tandere, was added, a person finding these signs would be able to identify the owner as one of a quite limited group of people. For the purpose of this discussion, I shall use the word hae as meaning such a combination of emblems which sufficiently define identity. Such a combination of hae never defines an individual or even an extended family as usually several extended families share the same combination. But the patrilineal units thus defined are always smaller than a clan. To this extent, earlier authors are thus justified in calling them "lineages." It would be wrong to suppose, however, that the same combination of hae cannot be shared by fellow villagers belonging to different clans, for this is often found. Thus, those translating the word hae as "lineage" should be careful to avoid the implication that such "lineages" are segments of clans.

The population of Sivepe is very hard to classify into hae because I noted 42 hae in use, only 11 of which were shared by at least four adults. Nonetheless, the fact that two persons share a hae is often a valuable clue pointing to a close relationship that is of considerable social significance, but that might otherwise be [621] ignored as idiosyncratic. By far the closest bond that can exist between the members of different extended families is that they share [582] both a clan name and common hae. When such a bond exists, rules of exogamy are stringently enforced. These rules also apply, but less stringently, if two persons share the same clan name, but no hae, or if they share a hae but no clan name.

614 For our present purpose, it will be most convenient if we 621 classify Sivepe households according to the clanname of that person in the household who is what Fischer (1958) has called the "sponsor," i.e., the person by whose presence in the household the residence of the family in Sivepe can be explained. On that basis, 13 households and the bachelors' house may be classified as Jegase, eight households as Seho and six as Sorovi, as in the first half of 1967. It is desirable, however, to observe how rapidly this pattern of clan

614 affiliations has changed. In 1962, when Rimoldi did his survey of the
621 community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had
[731] been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

361 One striking characteristic of the village layout of New Sivepe
614 is that all the Seho houses are grouped together on the same bende
616 while the other bende of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss
[582] under the term "dimetric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two
[601] sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

361 villages (Garoubi, Soroputa, Hohorita). When New Sivepe was built it
614 had become a familiar procedure and was simply copied from other villages.
It is an interesting adaptive institution, and the Orokaiva answer to
616 Australian pressure towards the building of multi-clan villages.

[177] Belshaw clearly stated the problem that was involved: "How far was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepe but by no means in all the villages.

614 — Rimoldi classified the Jegase clan into four lineages (Berekipa,
613 Sesevopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He further distinguished two Timumu lineages (Hajejopa, Pekuma), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

621 Inonda, in the same period, has developed in the direction of
614 a one-clan village. In 1951, out of 12 households, eight were of the Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepe, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children of both parents or one and whether clan membership is "primary" or "permissive." All these questions would be highly relevant, of course, if we were dealing with a village such as Hohorita, where many people died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams' ethnography is that he omits any reference as to household composition; in his notebooks, he records household composition for two villages, Burugata and Wasida, showing that in every case in those villages, a household was made up by a husband, wife and children. In one case of a polygamous family, the man had two houses, one for the family of one of his wives and one for the families of the other two.

592 Informants told me of one rule regarding household composition
606 which is likely to be quite ancient. This is that a man and his wife may not quarrel in the presence of the husband's father (and, needless to say, in the presence of the wife's father). For this reason, the people of Sivepe certainly do not like three-generation households when the middle generation is represented by a married couple. It is normal for a married woman to stay with her parents or her husband's parents while her own husband is away working for wages--as is frequent among younger couples. In that case, the household will have three generations, but the middle generation is represented by a woman only, with the husband only an infrequent guest. When I came to Sivepe, and the village was still only half-built, I found three households in which the middle generation was represented by a husband and wife plus, sometimes, a few others. In all these three cases, a change had occurred before I left: the husband and wife had built themselves one house, leaving another for the old people and perhaps some other adults, not including couples. This rule seems to be regarded as less important in Inonda. (See Table 15.)[A]

592 My own impression is that the normal household is composed of a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by
[589] themselves, even if they have no young children living with them and do not like staying with their children after they are married. A widower usually has his meals cooked for him by a daughter or other close relative who brings the food to this house. Though occasionally, two married brothers (or other close relatives) live in the same house, this is likely to be a temporary arrangement. I do not think that useful sociological conclusions can be drawn from comparison between Inonda and Sivepe in respect of household compositions, as there are in Inonda only two households of the type I have shown to be highly untypical and these may well be accounted for by idiosyncratic circumstances.

A [See Cat. 116, p. 220--Analyst]

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The
main differentiation noted by earlier authors was that between cash-
croppers and those engaging only in subsistence gardening. Now in this
respect there was no noticeable difference between clans in Sivepa:
out of 1,100 coffee trees growing in Sivepa in 1962, 503 belonged to
Jegase and Timunu and the rest to Seho, while in Inonda the coffee
growers belonged to two Andiriha lineages. In Sivepa today most men
grow coffee, and this applies equally to the Jegase, Seho and Sorovi
clans; the exceptions are elderly people. There are, however, very
significant differences in other respects between socio-economic
patterns in the Jegase and Seho clans--differences which are obvious
even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are
predominantly in the 35-45 year age group whereas Seho is predominantly
a little older (45-55 years). Hence the dance group formed in Sivepa
[535] is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
[871] acculturation, as the first school was established at Sasembata in
1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase
[191] people know some English, none of the Seho people over 35 speak any
at all. Furthermore, the first village constable and the first councillor
in Sivepa were both Jegase men who had taken up employment well before
the second world war. During the years they held these posts (1939-
1965), Seho had much less contact with government.

614 The statistics (Table 20) show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more
occupational experience. This experience, for both clans, did not
include work requiring much formal training; it was labour on rubber
and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless,
an intelligent man thrown into these kinds of situation can find out
a good deal about the outside world; in later dealings with external
agencies, he is able to make more informed judgments. A further
opportunity for such experience was offered the Jegase clan when the
Australian National University, which made Sivepa into a sample village
for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

its efforts upon what were then the Jegase and Timuru clans, to the exclusion of Seho. When my wife and I came to Sivepe, Jegase at once claimed us, built our house for us and was ready to perpetuate the familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of Jegase did not actually make much difference. Seho grew just as much coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to Standard 6) at Sasembata School; so far only one has gone further. One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepe has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepe of two additional Jegase families and six Sorovi households. An analysis of Table 16A will show that the net [166] population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepe. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepe population, we find only six men of that age group and only three of these were children in Sivepe in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most strking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepe today as there were in 1951. [158] It seems likely that this increase should in part at least be due to [165] the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save 167 a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepe is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. [464] Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timunu) sample were employed outside Sivepe in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepe and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepe," as these men had never lived in Sivepe at any time but had [614] been residents of Gurumbi before they became labour migrants. There [179] were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepa, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepe relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I was there, there were still two clearly separated araha; the dominant [161] clans of the front village section were Horeopa and Oripa; in the back, Besupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hohorita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Sombou and Kakita rather resembled Sivepe, but in Hohorita three-generation households were more common and bachelor's houses were not found. [597] Furthermore, many children were left parentless through the eruption and these were adopted by Hohorita households, especially by childless ones. As a result, childless households in Hohorita are far rarer than in Sivepe. A considerable number of marriages and remarriages [423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepe.

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepa are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepa were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepa. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepa has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepa.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegese and Timunu had established a fairly equal balance with Seho; as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared.
[562] Even for Papuans, the Orokaiva proved to be unusually hostile and resistant to whites. Women were often seen ac-
[186] companying the war parties, carrying food and weapons, and
[628] sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed
[778] clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the
361 truce was always a fragile one, and no (settlement) lived
241 in permanent security." "Hiving off" occurred sometimes
[578] as the result of a "quarrel and the fear of retaliatory magic," but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow
731 zone, and people may have to scatter out to live on wild
165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[799] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have

423 425 tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

791 423 425 Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been associated with their land.[11] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

182 423 614 The fears about losing the land which explain much of the tension at Ilimo Camp are a direct consequence of conflicts implicit in Orokaiva social structure. The institution of land borrowing, the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[15]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

562 through the close brother-sister links that endure after marriage and that are expressed through strong links between sister's son and mother's brother.
614 Genealogies are brief, but the Orokaiva classify themselves into supposedly agnatic units by grouping together persons who respect the same plant
[582] emblem which is treated as an ancestor. Clans are dispersed, and although local clan groups continue relations after dispersal, they soon begin to intermarry.

602 In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

121 In this essay, I shall present data on the friendship universe and show that
572 Orokaiva have institutionalized friendships of several types, some of which are hereditary. I hope to show that each type of friendship corresponds to
602 one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

101 Between the districts where the data were collected, there are slight differ-
197 ences in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata district), including the way kin and friendship terms are used. The Sangara
601 and Sasembata people are tribe-like groups, hereditary enemies, with seemingly similar social organizations.

601 Provisionally, it is best to regard the Sangara and Sasembata nomenclatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 less diffuse term than *apa/eambo*; *jao* (Sangara and Sasembata) designating a *namei* type of relationship between women, used commonly between unrelated married women living in the same village.

Friends as a Distinctive Set

601 The Orokaiva employ certain collective terms to designate the *philia* universe
572 or distinctive parts of it. Thus, the term *mamahane* (father's people) designates the agnatic group, *epehane* (mother's brother's people) the maternal relatives, *aerihane* (wife's people) the affines, and *japehane* (literally, grandmother's people) the father's mother's group. There is, in addition, a term *nameikamei* which comprises the total *philia* universe including an undefined residue of non-kin as well as all the groups listed above. Although Sasembata do not use the term *namei* (friend), *nameikamei* is heard regularly. In neither locality was a collective term found which exclusively comprised the non-kin in the *philia* universe.

The term *nameikamei* certainly covered, apart from the kinsmen, the (Sangara) *namei* category and the *jao*, terms which are both regularly inherited bilaterally. I cannot say for certain whether the *otavo* and (fictive) *simbo* categories would be included in the *nameikamei* group. These terms may be employed in fairly casual relationships, but in time, persons calling one another *otavo* may decide to use a sibling term, thus making the relationship hereditary.

Statistically, non-kin make up only a small part of the *philia* universe. A man might be able to list several dozen *nameikamei* in villages more than three miles from his home, and non-kin would make up only 20 to 25 percent of such a list. (It should be noted that my statistics are somewhat cursory, as I could never be sure that any informant's list was complete.) Visits from non-kin tend to be made at greater intervals than visits from kin and they last a shorter time. One could safely say that non-kin are, on the whole, on the periphery of the *philia* network, as is the case among the Tangu.

An interesting difference between the two systems is that the hereditary relationship which is between fictive brothers-in-law among the Tangu, is between brothers (*apa/eambo*) among the (Sasembata) Orokaiva. It would be considered not only chilly but frightening for an Orokaiva to call his guest friend *dambo* – affine avoidance being stronger than among the Tangu.

Orokaiva Cooperative Alliances and Reciprocating Partnerships

571 Cooperative alliances tend to vary in size according to the purpose of the alliance. In pre-contact times, the village was a cooperative alliance in war-
[621] fare and in large feasts, comprising between six to twelve households. For bridewealth and death payments, the alliance comprises the plant emblem
● [614] group (Williams, 1925; 1930; Schwimmer, 1970a), the nucleus of which approximates a four-generation lineage, although it also has other members.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *araha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *araha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *araha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *araha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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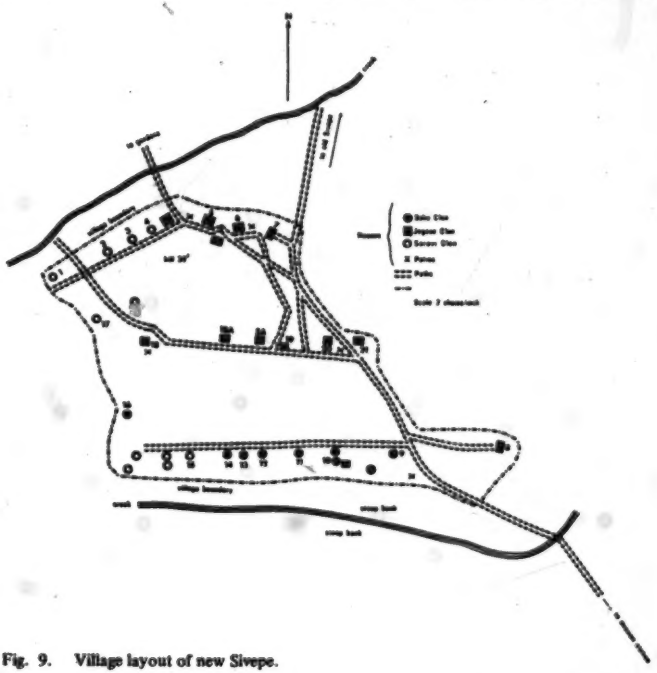

Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

It is obvious, first of all, that the Orokaiva rules concerning bilateral cross-cousin marriage and reciprocating pairs of groups are not free from ambiguity. The term *simbo* is not synonymous with the term 'cross-cousin'. Not all societies which have reciprocating pairs of groups have direct marriage exchange, as Lévi-Strauss showed in respect of the Koiari. The fact that the Sivepe people were partners in no less than twenty-five reciprocating pairs of groups in two generations poses the question whether this apparent instability corresponds to a structural regularity such as the 'sex affiliation' of the Koiari. Furthermore, in view of Lévi-Strauss' analysis of the African *lobola*, we need to investigate whether the Orokaiva institution of bridewealth (*dorobu*) is consistent with the principle of direct marriage exchange. Such inquiries would not serve to deny the reality of this principle in Orokaiva culture but rather to raise the possibility of the combined presence of direct and generalised exchange.

6. *Kinship Terminology*

Though Williams' description of Orokaiva kinship terminology is generally very accurate, it is deficient in two respects: his definition of the term *simbo* (quoted in section 4 above) is inconsistent with Orokaiva usage and he gives no terms for female speakers. Yet it is in these two areas that we find the key to Orokaiva marriage. We have seen that a *simbo* is – always and exclusively – a marriageable consanguine. If Williams were right in saying that a *simbo* is also – always and exclusively – a cross-cousin, then a rule of bilateral *simbo* marriage would be unambiguously equivalent to a rule of bilateral cross-cousin marriage. If the term *simbo* could be positively defined as a bilateral category of cross-cousins (as the Aranda do), then again we would have a rule of bilateral cross-cousin marriage. In the absence of a positive rule, however, the Orokaiva kinship system could not be regarded as 'elementary' in Lévi-Strauss' sense of the term, and thus it would not contain a true rule of bilateral cross-cousin marriage.

Again where such a rule prevails consistently, there would seem to be no need of special affinal terms. Williams, entirely correctly, gives a set of distinct affinal terms for male speakers which would suggest that the whole system is based on generalised rather than restricted exchange. Williams' explanation of this apparent discrepancy appears to be an evolutionary one: *dorobu* came first (and established the terminology) while *mine* developed later. As we shall see, the reality is more complex, as the Orokaiva use two types of affinal terminology: one type which is consistent with generalised exchange and another which is consistent with direct exchange. The former of these two types of terminology is in regular use by men and the latter by women. This fact is consistent with the theory that the Orokaiva marriage system is a combination of generalised and restricted exchange.

For the purpose of a componential analysis of terms we shall consider only terms used in face-to-face interaction by *ego* to address an *alter* when no other relative is present. The following dimensions of contrast apply:

Consanguine(C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.

[TEXT CONTINUED ON PAGE 205]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exchange alone, nor by rules of complex generalised exchange alone. If the Orokaiva had only restricted exchange, they would not be periodically forced to look for new groups with whom to intermarry. If the Orokaiva had only complex exchange (as Meggitt seems to believe is the case for all people of the New Guinea Highlands, viz. the Introduction to Glasse and Meggitt, 1969), then there would be no explanation for the various forms of preferential marriage that are still practised and the tendency to establish forms of dual organisation.

From one viewpoint we may say that the Orokaiva system is '*une sorte de faille de l'échange restreint*', because the Orokaiva are forever trying to re-establish such a system. From another viewpoint it is true that, having entered into new alliances and thus moved in the direction of a system of generalised exchange, they always attempt as soon as possible to convert the new alliance into a moiety system. The fear of setting up alliances with new groups is still very strong today, in spite of wide experience with travel among foreign tribes when men take up wage employment outside their own district. They still marry wives preferably from their own village, or one of the villages with which reciprocal arrangements exist. There was not a single current Sivepe marriage that fell outside this pattern.

It is certainly curious that the chief effect of white contact upon the marriage system was to emphasise the tendency to the formation of moieties through enforced village consolidation. One would have expected that greater physical security, greater mobility and the contacts brought about through labour migration would have widened rather than narrowed the men's matrimonial universe. One imagines that processes of social and economic development must ultimately make an ideology of restricted exchange obsolete. Meanwhile, however, we observe mainly a movement in the opposite direction. Not only has government pressure unintentionally increased the opportunities for village endogamy, and moiety formation, but the combined teaching of government and mission has deprecated elopement marriages, and penalised the showing of hostility between affines. The war expeditions which led indirectly to so many marriages were stopped. The concern with pacification on the part of the authorities led to an even greater preference than previously for 'safe' marriages and therefore a narrowing of the marriage universe. My records show more marriages with partners from distant villages prior to 1915 than can be found over the last generation. It is therefore complex generalised rather than restricted exchange that was (unintentionally) discouraged.

10 *Conclusions*

This examination of the Orokaiva marriage system indicates that membership in corporate groups (the *hae*, the local clan group and the village) all have a significant influence on marriage choice, not only negatively, by prohibiting certain partners under a rule of exogamy, but also positively, by pursuing from time to time the establishment of forms of dual organisation. Certainly every individual is more or less free to choose between the two existing systems – direct exchange and complex generalised exchange. There is, however, a constant feature on the level of group relationships, namely the existence of reciprocating pairs of groups. Another constant feature is the temporary nature of these

361 Comparing Inonda and Sivepe, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepe shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 Within a village, two kinds of kinship group larger than the
592 elementary family may be distinguished, namely the javo wahai (clan) and the hae (lineage, or plant emblem group). We may also distinguish
616 two kinds of residential group, the occupants of a bande or side and of a bande or house. On the nature of the clan I shall be brief here,
614 reserving detailed documentation for my doctoral dissertation. It seems to me mainly a political unit, held together by--in some but not all cases--belief in common descent from a single patrilineal ancestor, by the common name (javo) by which they call themselves and which they call out when slaying an enemy or a pig or in other moments of great stress, by the recognition of obligations towards and claims upon others who bear the same clan name. Rimoldi (1966: 33) is right when he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used to denote collectively all persons sharing the same plant emblem. The clan name (javo wahai) is transmitted only patrilineally, but the transmission of the hae is more complex. A person regards his hae, which may be any plant or part of a plant, or another natural substance, as a part of his own identity. He may respect it in the manner of a totem but such avoidances seem always to have been to some extent a matter of personal choice. (Williams, 1930: 127-218) The hae is used in a number of social contexts as a mark of identity. Williams seemed to believe that a hae was the distinguishing mark of a clan, but later investigators (Crocombe and Hogbin, Rimoldi) take it to be the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

614 affiliations has changed. In 1962, when Rimoldi did his survey of the
621 community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timunu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timunu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had
[931] been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timunu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

361 One striking characteristic of the village layout of New Sivepe
614 is that all the Seho houses are grouped together on the same bende while the other bende of the main village is entirely made up of
●616 Jegase houses. Sorovi, the clan which migrated to Sivepe from Caroubi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Caroubi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss
[582] under the term "dimeetric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two
[601] sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

361 villages (Garombi, Soroputa, Hohorita). When New Sivepe was built it
614 had become a familiar procedure and was simply copied from other villages.
It is an interesting adaptive institution, and the Orokaiva answer to
● 616 Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far
[177] was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepe but by no means in all the villages.

614 — ... Rimoldi classified the Jegase clan into four lineages (Berekipa,
613 Sesewopa, Arehu, Bebehupa) and one extinct lineage (Hambai). He further distinguished two Timumu lineages (Hajejopa, Pekuma), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Garo = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

621 Inonda, in the same period, has developed in the direction of
614 a one-clan village. In 1951, out of 12 households, eight were of the Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepe, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

26: Schwimmer E-5 (1966-1970) 1974
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quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 [614] [619] This section outlines the range of wider common territorial interests and concerted political action among traditional groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case [266] [721] sharply distinguished from the standard forms of hostility between tribes. Aggression against members of another tribe took the form of organised, often cannibalistic raids (isoro).

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[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stood in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

721 see p.6) and by the Sangara would have been common knowledge but the neighbouring tribes on the plains were well endowed with land. Land shortage and territorial ambitions were seldom likely to have been sufficient to induce warriors to conquer new lands from traditional enemies.[1]

628 721 Williams (1930:151) says that the Hunjovarehu (including the people of Divinikovari) and the 'Wasida' people to their south are 2 subdivisions of 1 tribe but in other contexts (1930:166) he mentions that these 2 groups carried out organized raids on each other's territory; these were frequent and were characteristic only of intertribal feuds. He refers also to the 'Wasida' as traditional enemies of the Divinikovari 'tribe' (0.9). Monckton too (Territory of Papua 1904-5:36) had reported that the 'Wasida' used frequently to raid ' the low-lying villages of the Kumusi' including the Nimanakwari (or Divinikovari) 'tribe'; indeed, the ancestors of some of the men at Sivepe were killed while fighting the Divinikovari, Togahau and Asigi people to the north. 'The people known as Hunjovarehu' and 'the people of the Periho group', according to Plant, should not be regarded as members of the same tribe (1951: Appendix 4). Informants said that their ancestors were not involved in the isoro which the Wasida villagers fought with the Orokaiva of Sairope - and at times with those at Baropi (Wairope) - and with the people of the Managalas Mountains to the south (see Reay 1953:118; Williams W.23).

Our reason for arguing that all the mountain Orokaiva - the Sangara as well as the Periho (i.e., Wasida) - constituted 1 tribe, is that the basic criterion for identifying a tribe as a distinct unit is its members' joint political activity, as Williams says (1925:406; 1930:156) - the 'almost perpetual state of war with its neighbours'.

619 721 634 In feuds with neighbouring Orokaiva of tribes to the north, members of the Awala District had regular alliances with people as distant as Koropata to the west and the Sangara to the east. However, on no occasion known to us did the mountain Orokaiva as a whole combine in defence or attack en masse. It is even unlikely that the Periho 'welded themselves into a solid group', which Plant (1951:3) claims 'was based on political necessity', defended a recognized common boundary and combined to conduct isoro as a unit.[2] At the time of pacification they alone must

[1] This is true of almost all New Guinea societies, whatever the extent of their political organization: exceptions include Chimbu and the Mae Enga (see Brown and Brookfield 1959:42).

[2] Plant's inclusion of the Wairopi and Sairopi districts in the tribe (see p.6) is hard to reconcile with statements by Williams (W.23) and by Reay (1953:118).

619 721 634 have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] 851 common patrilineal descent from a usually eponymous ancestor; they 611 do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among 614 the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localised group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

[G21] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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1 This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

2 Data from Awala and Wasida villages (see Williams O.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

3 Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
614 temporary 'confederacies of clans', which conducted raids upon
[701] the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

[634] However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

62 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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[721] [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo jawo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

[7] [12] is appropriate to argue for the relevance of the hypothesis of Brown and Brookfield (Brookfield and Brown 1963:176-7;: Brown and Brookfield 1959:74-5) concerning the allocation of the land of Chimbu descent groups and the incorporation of non-agnates. They note that among the patrilineal Mae Enga the proportion of non-agnates allowed to reside on and use land in clan territory has been shown to decrease with an increase in population (Meggitt 1958:264) whereas this correlation does not hold for the territory occupied by the Chimbu clan.

In explanation they cite the facts that in Chimbu the major political-territorial unit, the tribe, has a larger membership than the Enga unit and contains not one but several exogamous clans. Political and ceremonial functions are concentrated in the exogamous Enga clan, which has sharply defined territorial boundaries. Only in Chimbu can land needs be easily accommodated in the political unit by means of land transfers between individual kin and affines in neighbouring clans, and it is significant that individual grants are more common means of redistributing land than among the Enga.

We will focus discussion of our evidence by proposing as a reasonable correlate of the largest Chimbu territorial and political unit the Orokaiva district, on the grounds that it was a territorially distinct unit within the tribe.[1]

The first premises assumed are that the scale of difference between Chimbus or Enga and the mountain Orokaiva in respect of pressure on productive land occupied by the heavy local concentrations of populations (e.g., in Orokaiva districts) is not of significance here; and that the characteristic method[2] of ensuring equitable distribution in both the Chimbu and Orokaiva landholding systems is by frequent transfers effected through interpersonal ties.

Moreover, several differences between the 2 societies should be noted:

(1) the district in our comparison may have included an estimated 1,000 persons as against 4,000 in some Chimbu tribes;

[6] [19] (2) unlike Chimbu there were no large-scale peace-time activities or ceremonial in which either the Orokaiva tribe or district emerged as a solidary unit (Brown and Brookfield 1959:5, 45 ff.);

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[1] We could have chosen the tribe, the inclusive effective political unit, without necessarily invalidating our comparison.

[2] Though not the only important method.

171 (3) the district had a compact territory (unlike the tribe)
619 but its members were not all bound in mutual support in
121 attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

614 (4) the Orokaiva clans which were scattered, often through
171 several districts, did not have a single territorial
121 focus and were radically different from a Chimbu clan; the latter is much more localized in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

121 In the present study an adequate discussion of the hypothesis
171 requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. Much of our earlier discussion has dealt with residence and local organization and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organization between these Orokaiva and the Chimbu (or Enga, etc.).

171 Over and above these differences there is in the principles of
621 organization of the local communities of the 2 peoples an essen-
121 tial similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington 197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 The Orokaiva people number roughly 26,000 and are divided
[161] into about twelve tribes. The tribes are very loose units
[619] and recognise no single leader and before European contact,
[423] warfare within the tribe was not uncommon. ...there are no
[614] land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 There has been European contact of some form over a long period.
795 The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 The initial Japanese occupation of Papua took place in the
177 Northern District as the Japanese marched towards Port Moresby via

FOREWORD

101 In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are [619] known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

241 During the last ten years there has been considerable development of commercial agriculture within the area. Many 241 people have planted cash crops on land held under customary 423 tenure; some villages have planted communal blocks on land set 650 aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of title to land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

CHAPTER 2 - LAND TENURE

619 The concept of the tribe as a group of related clans exists among some of the Orokaiva people, but among the Inonda villagers at least it seems to be only vaguely defined and to have little if any relevance to land matters. The Andiriha and Jego'undi sub-clans are referred to in some reports as belonging to the Ihane'embo tribal group and although Inonda informants recognize some affinity with the other clans in this group, they say that the name Ihane'embo came into use only after European contact.

423 Land rights were found to be distributed at the following levels of social segmentation:

The rights of social units

423 644 The sub-clan: All land investigated in and around Inonda was found to be associated with one or more sub-clans.(1) It is a common misconception on the part of outside observers that any particular piece of land can be associated with only one such group. This is certainly not the case in the Inonda area and from superficial enquiries it appears that the Inonda case is not unique.

Where more than one sub-clan claims rights in an area the rights of each are determined by two factors - the circumstance under which the original division of rights took place; and the temporal, demographic and social changes that have occurred since the original division of rights.

This may be illustrated by the Inonda situation where

(1) Several atypical instances have been noted wherein rights are held by the clan as a whole rather than by a particular sub-clan. This may be exemplified by the case of the Anumba lands which are described on page 23.

'communal ownership', which is sometimes applied to indigenous land tenure, is misleading and must be qualified. New Guinea land tenure may best be understood as a pattern of rights of usage. For example, a man who is the first to venture into a patch of rain forest and mark distinctive trees thereby acquires the right to hunt in that forest area; if he clears the forest he acquires the right to cultivate that land. These rights are inherited by his descendents. Thus individual adults control the rights to hunt, forage or cultivate on all land, and, incidentally, to fish in the streams which traverse their land. But each individual is also a member of a closely cohesive parish[1] group, to which he owes absolute loyalty. The parish group, through its sub-groups, clans, lineages, and individuals, controls a certain area of land. It was inconceivable in the traditional days of inter-parish warfare, that any land should be given or sold to the neighbouring enemies. Under traditional custom, no individual could sell freehold title to land; at most he could permit the temporary use of land by a stranger on the full understanding that he as a lender retained the permanent rights.

New Guineans are just as conscious of their individual rights to the use of land as we are, and many disputes occur because of real or imagined infringements of a person's rights. Land boundaries in New Guinea are rarely marked by fences. More commonly they are indicated by distinctive trees, rocks, or very often by bright-leaved shrubs such as croton or cordyline. Land holders have what is, to us, an almost uncanny knowledge of the location of their boundaries. A villager can lead you unerringly through thick secondary growth to his boundary mark and can point out, for instance, the almost imperceptible rise in the level of the land marking the line of a pig-fence, now completely rotted away, which bounded his swidden several years earlier.

[1] The term 'parish' may appear unusual in this context. It is used in the sense in which it has been adapted by Dr. H. I. Hogbin (1953) that is, the largest group of people forming a political unit. Hogbin denies the existence of tribes in New Guinea (with the possible exception of some of the large highland groups). He applies the term parish to numerically-small political groups.

602 Kinship groups are of major importance in the functioning of village society in New
[619] Guinea. Every individual is a member not
[614] only of a parish but also of groups of closer
[613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his
602 relatives for heavy work such as the felling of
464 big trees to make a swidden, dragging a canoe
476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides
602 social stability and in practice the pattern of
311 land use is frequently decided by the senior
241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

657 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such mea-
[578] sures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-
177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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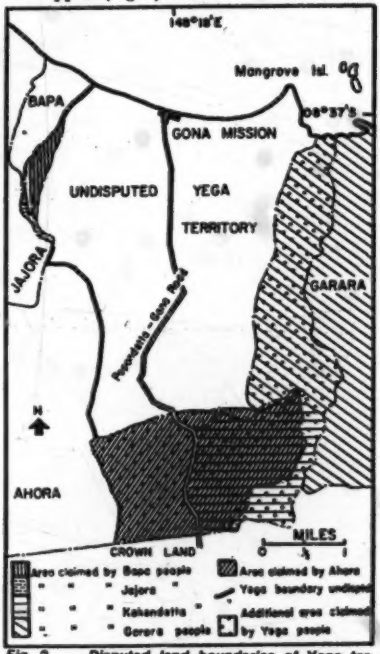


Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

[P.6-A]

619
423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
657 forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
[619] divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her
591 father's house and goes to live in the house
178 provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

614 An abbreviated table illustrating the Yega
613 social structure is given in Table 1.
[P.6-B]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being aesthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Boeiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepa where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepa men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepa and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepa in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
● 619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated [731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practices what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of [582] residence. Within this area, marriages are contracted, cannibalistic [721] raids do not occur and fights tend to involve comparatively little [266] bloodshed. The circle of "intra-group morality" varies for every

628 village. Williams, in marking out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X), but "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepe. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[572] closely together than formerly. I obtained from a number of Sivepe
men a list of "friends" and inquired into the occasion when the
[582] friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepe I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
period, (the atmosphere of an evacuation camp was certainly not
628 a suitable one for developing it. Both Belshaw and Keesing
619 emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepe and Soroputa or Agenehambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sauaha; Crocombe and Hogbin describe Sauaha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship
[574] context, by persons from another district. This was a group from Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[659] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

73 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusmale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

Section 3: Social Environment

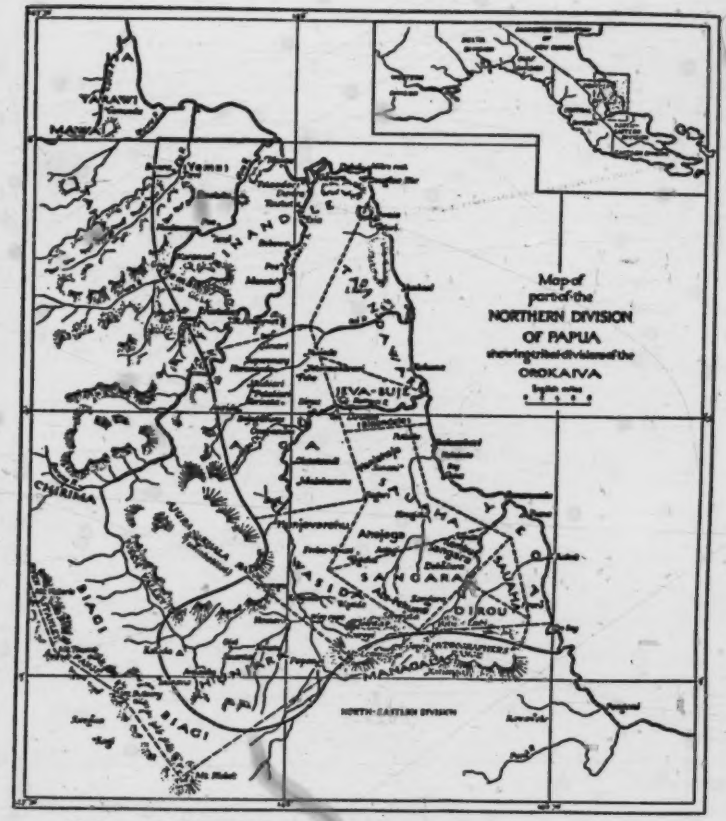
619 In discussing the Wasesta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [197] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hoborita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [657] district to amalgamate villages. A number of the people now living in Hoborita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hoborita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Sombou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Sombou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hoborita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since the eruption form a rather tight cluster, quite different from the 629 intersecting circle pattern I described for the Sasembata district. When a person in Sombou died, the whole of Hoborita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hoborita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hoborita while Sombou, with the assistance of Kakita, entertained the Uhuru'undi

Map X



Source: Williams 1930

[End Map 9]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

13: Hogbin OJ23 Orokaiva OJ23

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[For additional information on lineage, clan, and village role in a bridewealth transaction, see Category 583.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi. Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and daughters should inherit land in preference to second degree kin. I know of
425 several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some individual to give garden land. Often several individuals give a piece each, but such a gift does not entitle the donor to decide just who should live on each house site, nor to control in detail what residents do with their housing sites. Trees planted by householders remain theirs in perpetuity. Such gifts to the community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged between partners in land transactions. Frequent as they are, voluntary land transfers are always treated, in ideological statements, as departures from a regular and more secure patrilineal pattern. It is a though a maternal uncle or affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in that one cannot suggest any specific major counter-gift or counter-service which could be used to reciprocate. Allegiance and protection, benefits which the land-borrower usually does furnish, cannot be bought with land. They may be given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged between non-agnates. In fact, it may be said that it is from social exchanges of this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. [773] In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

261 In addition to father, mother and twins, the myth contains a fifth character, 773 the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

824 If female nature, in its pure state, is found in the taro garden and male nature, 773 in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is 539 imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

824 The analysis of this myth has enabled us to understand more precisely the 431 sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'. 562 The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

824 Gifts of taro may mediate either the establishment or perpetuation of a social 431 relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by 621 every Sivepe household every day. In the twenty-eight days for which I took

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

records of taro gifts made in Sivepe village, the number of gifts made and received averaged 2.5 daily, ranging from a minimum of 1.3 averaged by the household least involved in the exchange system, to a maximum of 4.1 averaged by the household that made and received the most frequent gifts during the period. Allowing for variations in size, age and personality characteristics in the various households, these figures present a fairly homogeneous picture of customary exchanges.

Most of the gifts were made within the village, though a small proportion went to relatives and good friends who visited the village or who were visited by members of the Sivepe community. The usual practice was for the woman to bring home with her from the garden not only the taro her household was to eat that night and the next morning, but also taro to be used for giving away. When the recipient was of the same village, the taro would be cooked and presented ready to eat. The presentation was hardly ever made by the husband and most frequently by the children who were sent over with the cooked food and gave it to the named recipient without any ceremony. When there was any ceremony about the gift at all, the housewife was the proper person to make the presentation.

If I inquired who was the donor of the food I was often given the name of the woman, but sometimes the name of her husband, especially if the recipient was one of the husband's close kinsmen. There was always the notion that the gift served to maintain a specific relationship which would be involving either the husband or the wife. Strictly speaking, by far the greater proportion of the gifts were thus made to consanguines rather than affines. But it is better to regard the household as an integrated unit in its relations with other households, as the spouses undoubtedly mostly discuss together to whom food should be given. Essentially, taro gifts mediate relationships between households rather than individuals.

The size of the gifts was constant and seemed to be approximately what one person would eat for a meal. If a household made a gift of several meals to another household, this would be described to me as several gifts, with specification of the names of individual recipients. Here again, there was a contrast between the strict form of the gift and its overall significance. Strictly it was food given by one person in household A to one person in household B. When the family sat down to eat, the person who received the gift taro would share it out to others in the household. Therefore one may say that the gift was, in its general effect, from one household to another, but in strict form, it was emphasised that the social relationship between households A and B was mediated by one person in each household whose relationship was especially close. Thus, I might be told that 'X' sent taro to his brother 'Y'. In fact, X's wife would give the taro to one of her children who would take it probably to Y's wife. Y's wife would give it to Y, saying it came from X. Y would then give everyone a piece of it. A single gift would thus mediate quite a number of bonds.

As the gifts were very frequent, it seems a hopeless enterprise to specify on what occasions they were made; at first I thought taro gifts were made without any reason. Nonetheless, it is useful to discuss briefly a series of instances when taro gifts are considered appropriate. Let us first list a few of the more formal occasions when the housewife herself would make the presentation:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[846] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 439 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gaga*. It will be noticed that the position of the taro on the *gaga* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/1

SIVEPE: TARO TRANSACTIONS BY HOUSEHOLD

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Household Code No.	*Total Transactions*	*Sent*	*Received*	*No. of Partners*	*Degree of Imbalance**
1	58	40	18	9	4
2	37	1	36	6	6
3	41	26	15	9	3
4	57	35	22	9	3
5	101	54	47	14	1
6	70	45	25	4	3
7	87	24	63	12	5
8	56	33	23	3	2
9	71	40	31	6	2
10	58	21	35	5	3
11	68	36	32	10	1
12	117	59	58	8	1
13	85	44	41	7	1
14	101	52	49	7	1
15	60	34	26	11	2
16	60	37	23	13	3
17	79	50	29	14	3
18	62	9	53	10	6
18a	48	37	11	10	6
19	81	54	27	9	4
20	84	46	38	12	1
21	82	41	41	8	0

* Code: 0 = larger donor gives exactly 50% of gifts;
1 = larger donor gives 50–55%; 2 = larger donor gives 55–60%;
3 = larger donor gives 60–65%; 4 = larger donor gives 65–70%;
5 = larger donor gives 70–75%; 6 = larger donor gives over 75%.

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mediating element in the perpetuation of social relations. Within a village, social relations of some sort exist between almost all the members. In my enquiries in Sivepe I came across only one instance of two men, both resident in Sivepe, who denied having or ever having had social relations of any sort with each other. There may have been one or two more instances I did not detect, but they would be very rare. Social relations between households in a village may range from very distant (when no taro gifts are exchanged) to very intimate (when taro gifts may be made four or more times per week). Many households have social relations which are close but not intimate, symbolised by taro gifts made a few times per month. The frequency of taro gifts is of course not the only way of symbolising intimacy, though it is the sign I found the easiest to quantify. It was my impression that those households which maintained the most frequent informal association with one another were also those who made each other the most frequent taro gifts. These were the households who were deeply dependent

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

924
431
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on one another in sentiment, in economic tasks, in political support. They would tend to side with one another in village disputes. Thus, taro gifts were a ritual statement in which one household expressed its desire for close association with another.

Now, on this level of association, mutuality and reciprocity are obviously essential if the association is to be established on an equal footing. The return gift should therefore not be considered principally as an obligation (arising from a 'norm of reciprocity') but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of gifts is closely connected with the question of how intimate either side wishes the association to be. An increase of the frequency of gifts means a desire for a more intimate association. The recipient may wish to keep the association within certain limits. The Garombi migrants who gave more than they received seemed to be constantly trying to build up new alliances and were welcomed more warmly by some of the old residents than by others.

Failure to make a return gift of course does not always 'mean' that one is not interested in maintaining social relations of the closeness envisaged by the other party. There are many circumstances when people are not immediately in a position to make return gifts. In such cases I would not say that the recipient remains entirely without obligation, but rather that the obligation is delayed indefinitely. Thus a man may say he is giving food to his father or other senior relative because of some benefits received in the past. (He was himself fed by the senior person in his youth; he was helped with his bride-price, etc.) Or else a man will say that when his hosts visit his own village, he will then reciprocate. In fact guests customarily press their hosts to make an early return visit and hosts sometimes feel some obligation to do so. It is a pleasurable obligation no doubt, but it is clear that the purpose of such a journey is not to get one's taro back but to maintain the association.

It follows from this discussion that the households to which the most frequent taro gifts are made are those with which the greatest intimacy is desired. If the recipients, though fully capable of making equally frequent return gifts, reciprocate too half-heartedly, the donor household will probably reduce its gifts to the level acceptable to its partner. If the recipients are not capable of making equally frequent returns, the frequent gifts will continue, and the taro ledger will remain unbalanced. Thus, irrespective of the degree of balance, we may regard high frequency of taro gifts as a generally reliable index of intimacy of association. I am leaving out of consideration here the question, raised by Sahlins (1965), of whether degree of balance is determined by kinship distance. Exchanges of taro have a social as well as an economic aspect. Where the social aspect is uppermost (i.e. where the exchanges are not primarily based on need), they tend to be close and balanced, as long as both partners are satisfied with the prevailing frequency of interaction. Where the economic aspect is uppermost (i.e. where one partner is for some reason unable to harvest his own taro), no *social* importance is attached to imbalance and Sahlins' generalisation would probably hold for the Orokaiva of Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *Clusters and Chains, Two Patterns of Intimacy*

How can taro gifts mediate close associations among larger groups than dyads of exchange partners? This involves a complex sociological problem that cannot be solved in the framework of the present study: why do men tend to give disproportionate attention to a very small number of their closest associates and much less attention to a larger group who are still close and trusted friends? A principle of allocation clearly operates here: intimate relationships demand more time and energy than can be devoted to the entire circle of close friends. But it is by no means clear what is the role of intimates as distinct from other valued friends. This hierarchy of association, whatever its explanation, is very evident among Orokaiva, not only in the way in which individuals spend their leisure time and compose their co-operative groups, but also in their allocation of taro gifts among their exchange partners.

In Sivepe the number of exchange partners maintained by a household varies from three to fourteen, with an average of 8.5. The first (i.e. most frequent) partner is involved in an average of 38 per cent of all taro transactions, the second partner in 24 per cent, the third in 12 per cent while the other partnerships account for only 26 per cent of all transactions. It is clear that the first and second partners are in a very privileged position in comparison with the others.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of interaction. My impressions, supported by the statistical data and some generalisations offered by informants, is that each household has a few preferential partners to whom it gives or from whom it receives taro at least twice a week, but often far more frequently. In this sense every household in my sample had at least two preferential partnerships. Ten households out of twenty-two had a third, five households a fourth and one (the Seho clan leader) had five preferential partnerships.

The data show that where households are linked by primary kinship, they mostly set up a 'preferential' taro partnership. Only 30 per cent of preferential partnerships, however, fall in this category. The rest can be accounted for only if land transactions, political considerations, and the total past history of personal relationships and transactions are taken into consideration.

For statistical reasons alone it would seem that preferential partnerships are worth some detailed investigation. They clearly add substantially to the number of intimates on whom an individual can count for support over and above those who can be depended on purely by virtue of membership of the same corporate group. In addition preferential partnerships are of crucial importance as a basis for close co-operation between sets of persons larger than the exchanging dyad.

In Fig. 8, all preferential partnerships in Sivepe are shown in sociographic form. A distinction has been made in the sociogram according to the extent to which social preference is mutual. Households A and B may be said to stand in a 'closest mutual relationship' (marked by a hard line), if B is a first or second partner to A and A is a first or second partner to B. If none, or only one of these conditions are satisfied, the relationship is shown by a wavy line.

Though a full analysis of taro gift patterns has to await separate publication,

[TEXT CONTINUED ON PAGE 131]

824
431
571
621

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/2

SIVEPE: TARO TRANSACTIONS BETWEEN PREFERENTIAL PARTNERS

Household Code No.	*First Partner*	*Sent*	*Received*	*Second Partner*	*Sent*	*Received*	*Third Partner*	*Sent*	*Received*
1	H17	7	11	H2	16	0	H5	4	3
2	H1	0	17	H3	0	11	H17	1	4
3	H2	12	0	H17	4	4	H4	2	5
4	H5	15	12	H3	5	2	H7	6	0
5	H4	12	14	H6	11	7	H21	11	6
6	H7	33	12	H5	7	11	H4	2	2
7	H6	14	30	H19	5	11	H4	0	6
8	H9	13	16	H10	18	7	H7	2	0
9	H8	15	15	H10	16	7	H13	4	2
10	H8	7	17	H9	7	12	H11	3	4
11	H12	10	11	H20	18	4	H18	6	2
12	H13	17	19	H14	15	19	H11	12	10
13	H14	21	17	H12	19	16	H9	2	3
14	H13	16	21	H12	17	16	H15	6	8
15	H14	8	6	H16	6	7	H12	3	5
16	H17	8	6	H15	7	6	H7	7	0
17	H1	11	5	H16	6	8	H18	7	3
18	H18a	0	15	H17	3	7	H11	3	6
18a	H18	15	0	H19	8	4	H17	3	3
19	H7	24	5	H18a	4	8	H12	5	6
20	H21	28	19	H11	4	8	H5	4	4
21	H20	22	20	H5	6	11	H11	4	1

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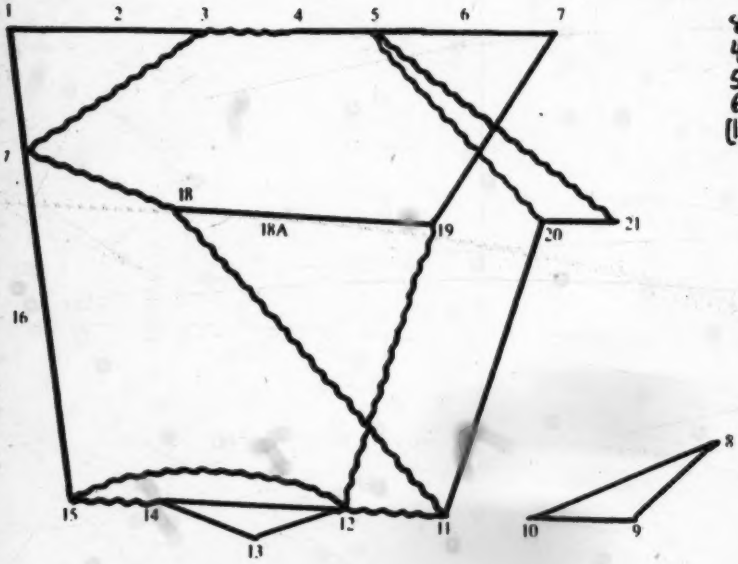
Mountain Orokaiva



824
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[128]

Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

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In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . , Hn) is defined as a set in which H2 has a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 571 621 128 'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

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824 431 571 621 128 614 The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

824 431 571 621 128 It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *arara*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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MODEL 19

How can an exchange model of this sort establish enduring solidarity in a village containing as many as twenty-two households? In a small cluster of households solidarity can be established by the device of every member exchanging with the required frequency with every other member.

But when there are twenty-two households, the same pattern could be maintained only if twenty-one 'closest mutual relationships' were kept up by each household. This is manifestly impossible as the relationships require, not only regular gifts of taro, but also close and frequent association.

Several devices for increasing the range of a solidarity network have been explored in Lévi-Strauss' theoretical study of marriage exchange (1949). They may be classified as various forms of direct and generalised exchange. Theoretically, any of these devices might have been used to cope with the problems of taro exchange. There might have been a rule delaying the return of gifts, or even forbidding the acceptance of taro gifts from those to whom one had given taro. But these devices would have made an exchange network of twenty-two households theoretically feasible. None of them is, in fact, found among the Orokaiva. Instead we found the pattern I called a chain.

The problem which a circuit-like structure attempts to solve is that of establishing or maintaining amity and solidarity between two parties (A and B) who are not linked by bonds of any special intimacy. The procedure followed is that A and B use one or more persons to mediate between them. In the simplest case, where A and B are separated by only one link in the chain, they share the same intimate associate who can act as mediator. If they do not share an intimate, i.e. if they are separated by two or more links in the chain, an accommodation may be reached through a series of mediators who act vicariously on behalf of the principal parties. The arrangement, in its simplest form, is shown in Model 20 which may, of course, be extended indefinitely by inserting intermediate exchange cycles. In practice, this model would be utilised rarely between neighbours living only two houses away from each other. It is, however, a pervasive pattern of Orokaiva social life. It is regularly employed in the making of requests by someone who is not an intimate. A refusal always offends. But if a request is made through a mediator both sides may pretend it has never been made. At least, no hard words are spoken. There is a customary blank, expressionless style which is used for the transmitting of requests – symbolic gestures of neutrality. The mediator avoids all risks of endangering his own alliances while still making what effort he can to satisfy the party seeking the benefit. If the mediator's intervention is successful, this undoubtedly increases his standing and creates an obligation on the part of the beneficiary.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

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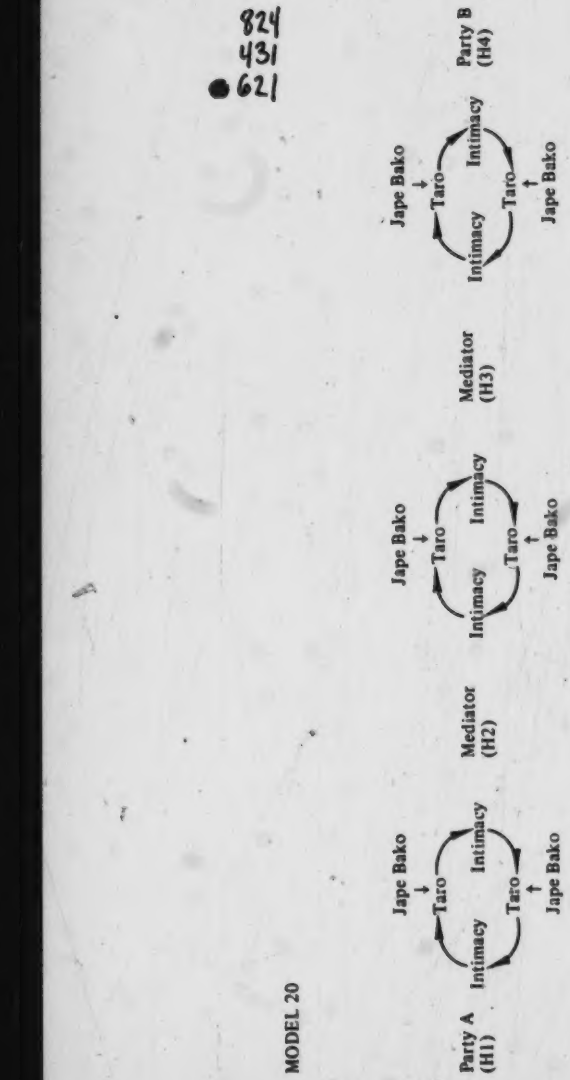

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

628 In dealings between different villages, the use of a chain of mediators is extremely common. A will approach a fellow-villager B, who has connections in the other village; B will go to the other village and see C, his closest contact. C will then most likely go to D, one of the intimates of the person E with whom A desires to deal, and D will look for E. During the ensuing conversation, A and E will say very little, and it is the intermediaries who do most of the talking.

824 The intimate associate, often a neighbour, is thus extremely valuable, as he
431 opens up a vista of alliances to which his partner has no easy access. A man's
621 effective social network is therefore much wider than any network he could
571 personally maintain by direct exchanges. Most of his effective alliances are vicarious and can be reached only through intermediaries.

The social network maintained by a sizeable circuit is therefore very considerable. It is greater than any solidarity group the Orokaiva could build up by maintaining their patrilineage bonds or by exclusively exploiting any other principle of kin group solidarity. The significance of gifts of cooked taro is that they maintain the intimate bonds needed to retain vicarious access to this network. Cooked taro mediates not only the exchange of intimate attachment, but also the exchange access to *alter's* private network of alliances.

If a village formed a perfect cluster, this kind of exchange could not happen, as all members share exclusively each other's most intimate alliances. Where a circuit structure prevails, a man's partner always has an intimate relationship he does not share, so that the man is dependent on his partner for access to that partner's distinctive exchange network. A society whose solidarity depends heavily on direct immediate exchange may have a rather wide network of alliances as long as it has strong institutional patterns of mediation. The importance of these patterns in Orokaiva society cannot, of course, be gauged by reference to taro exchanges alone, but it is now possible to inquire to what extent the model I have constructed on the basis of taro exchange applies in other areas of Orokaiva culture.

Clearly this model, if transposed to the level of marriage exchange, would include elements of both direct and generalised exchange. The cluster resembles direct exchange: the maintenance of relationships within the system depends entirely on benefits received from all households included in the system. On the other hand the chain has the circular form characteristic of generalised exchange. It includes households who receive no direct benefits from one another except the vicarious one of joint membership in the system. In some respects the chain, of course, differs fundamentally from a system of generalised exchange: the taro travels in both directions around the circle. But I have emphasised that taro is not strictly an object of exchange but of mediation. If there is a need to establish intimate social exchange between remote members of a chain, this will not be, as a general rule, for the exchange of identical benefits. Thus the benefits travelling in each direction along the chain may differ and may not belong to the same sphere of exchange.

While relationships within a cluster are very intimate, those within a large chain may require delicate diplomacy. Yet a chain does not, in my experience, contain members who are actively hostile to one another. The exchange of cooked taro has to to with the maintenance of friendly relations, and collapses if serious conflict arises. The management of serious conflict requires different

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

objects of mediation, such as pig meat, which will be discussed in the next chapter.

REFERENCES

1 The propagation of the taro plant (*colocasia esculenta*) is illustrated in Fig. 7.

2 Waddell's survey excluded gifts to household members. This may explain informants' initial hesitance in mentioning them.

574 The first plans for a feast are laid at least one year in advance, as it involves
621 extra plantings of taro as well as economising on pigs. By the end of December,
244 the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent
[773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 The pig sacrifice at this meeting serves to remove any latent hostility between
621 the men of the group, so that all will be united and co-operate unreservedly towards the success of the feast. Though the *pondo kiari embo* tends to be a
[554] man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The
[422] meeting thus temporarily changes the authority structure of the village. The
[425] growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 The same principle underlies one detail of the ritual taro display to which I
574 have not yet made reference. At the meeting 'special betelnuts' (I do not know just what medicine is used on them) are distributed by the feast-giver to be
431 shared, after the meeting, between the men and their wives. The men are to ask
276 their wives whether the taro are ready. This is a ritual question, as the men go to
562 the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *two* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [842] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 crop failure at Hohorita would be explained as resulting from sorcery inflicted
621 upon the people collectively by a sorcerer from one of the traditionally hostile
[789] villages near which the Sangara have been forced to live since the eruption. The
[754] sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 Yet it is clear, from the evidence presented here, that a feast does not serve to
628 set up warm and affective relationships between collectivities: the host and guest
437 communities, as such, do not actually eat together or converse with each other
572 closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 While the evidence presented above is consistent with model 25,[A] that model does
628 not account for all the facts under consideration. If we take a synchronic view of
778 the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

A [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

611 men showed loyalty to their affines rather than their clansmen. He also noted a
614 widespread tendency for individuals to identify with the maternal rather than the
[429] paternal clan. Evidence on land tenure, presented by Crocombe, Hogbin and Rimboldi, provides an impressive list of exceptions to the supposed rule of patrilineal inheritance and points, in addition, to the feebleness of links between the local groups making up a dispersed clan.

614 At the time of Williams' study, most Orokaiva villages were composed of a
●621 single clan and comprised little more than six households. The Australian
361 authorities used a good deal of pressure to make the Orokaiva consolidate their
177 hamlets into larger villages which could be more easily patrolled, but by 1951 Belshaw reported that most Orokaiva still lived in hamlets. In 1966 I found a good number of one-clan villages, with populations of around fifty, but the majority of the people were concentrated in larger settlements in which at least two local clan groups were residing together.

The local clan group was traditionally the smallest viable military unit, whose duty it was to defend the hamlet territory against outsiders. It had its own military leader, feasting leader, technical and magical experts. In the modern multi-clan village, the corporate scope of the local clan group has declined, as its functions have been taken over by the village. Village feasts, village boundaries, village leadership tend to take the place of the earlier local clan group institutions. Due to these changes, the unity of the local clan group has become more difficult to establish and maintain.

614 Crocombe, Hogbin and Rimoldi have provided full data showing that local
613 clan groups are often divided into a number of exclusive segments they call 'lineages', which are characterised by putative common patrilineal descent from an ancestor who could often not be named. It is certainly true that we find important units intermediate between the extended family and the local clan group. First, it is possible to list four names of such major units within the Jegase local clan group and the same number within Seho. But the term 'lineage' might be deceptive unless we define it more closely.

614 If we look at the clan segments in Sivepe (it will soon be clear why I prefer
613 not to call them 'lineages'), their real distinctive feature is that they either came
166 to Sivepe as migrants from the same village or as members of the same clan. There is no evidence whatever that, in their village of origin, they would necessarily have been regarded as close kin. Their feeling of being closely related arose only subsequent to migration. The study of Orokaiva migrant groups, even comprising just a few families, easily reveals that they tend to consist of one core family to which others will rally, not because they are related by kinship but because they want to leave, are good friends of the migrating family and, most probably, have some kin or friendship links in the village where the group intends to settle. It is only after arrival there that they may, for ideological and political reasons, create the fiction of being close patrikin. A number of such groups fuse with earlier arrivals into larger units bearing a clan name adopted by all. Hence, for most purposes these smaller units are best described as 'clan segments', though it may be useful to refer to them as lineages when discussing informants' statements concerning the patrilineal ideology by which such groupings are held together.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE X/1

VILLAGE POPULATIONS AND CLAN ORGANISATION

Number of villages investigated: 15

Name	*Population*					
(*a*) *One-Clan Villages:*						
Ajoro	50	Tandai'undi				
Inonda	42	Andiriha				
Irihambo	30	Oripa				
Sombou	70	Pangaripa				
Kakita	24	Hatopa				
(*b*) *Two-Clan Villages:*						
Binduta	100	Jegase	Usohu			
Garombi	132	Sorovi	Betu			
Hamburata	91	Ehirari	Ohuru			
Kongohambo	96	Pugege	Ameti			
Sivepe	137	Jegase	Seho			
Torogota	65	Jeipa	Jaumbi			
(*c*) *Four-Clan Villages*		ve/ih	ih/av	av/so	so/ve[1]	
Hohorita	348	Oripa		Besupa	Sehopa	Horeppa
Sasembata	162	Garoha		Pekuma	Ato	Takone[2]
Soroputa	200	Seraopa		Jaja	Java	Timumu
(*d*) *Multi-Clan Villages*						
Kiorota	429				12 clans[3]	

Notes

[1] ve/ih etc. are made up of abridgements of the Orokaiva terms *veari, ihane, avunu, sose.* for which see Chapter X, 5.

[2] No marriages between Seraopa and Jaja are permissible today, but both clans marry preferentially into the Hamburata clans.

[3] This village was settled in 1958 by refugees from the Mount Lamington eruption who previously occupied a number of smaller villages, according to the following pattern:

Homumuta	1 Haripa	2 Penonupa	
Isivita	3 Jegase	4 Berekipa	
Bosisepa	3 Jegase	4 Berekipa	11 Seraopa
Tambore	5 Oetopa	6 Ahungata	
Taremuturu	5 Oetopa	7 Pusaripa	
Pinda	8 Isivupa	9 Juvaripa	
Kandata	10 Jepuripa		
?	12 Omborapa		

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Forms of dual organisation between pairs of reciprocating groups have always been of limited scope as the groups tended to reside apart from each other, and each group tended to have marriage exchange relations with several other groups at the same time. Even the short genealogies of Sivepe show evidence that the families of this village have been participating in no less than twenty-five reciprocating pairs of groups, the exchange sometimes consisting of no more than one recorded exchange of women between two villages. Interestingly enough, it was Australian pressure towards village consolidation that emphasised the tendency to dual organisation.

First of all, co-residence tends to increase the number of marriages between local clan groups which are thus thrown together. Usually, such local clan groups are already reciprocating pairs, but when co-residence is established, they begin to reciprocate at a greater rate. For instance, the Seho and Jegase local clan groups in Sivepe, comprising together sixteen households, are linked by seven current Seho-Jegase marriages. This was sufficient to define the seven Seho households and the nine Jegase households as standing in an affinal relation to one another.

In such a village the other households tend to be classified as adhering to one of the two dominant local clan groups. A few years before I came to Sivepe, Rimoldi and Waddel had both visited the village and recorded the presence of a third local clan group, called Timumu. On my arrival I found that this group, consisting of three households, had adopted the Jegase clan name, thus establishing a tidy dualist pattern between one group defined as agnates and a second group defined as affines. A few months before I settled in Sivepe, six households migrated there from Garombi. All the men were members of the Sorovi clan, though of different lineages. A year after they migrated, five of the householders were classified as part of the Jegase clan (by the use of sibling terms of address) while the sixth was classified as part of the Seho clan.

I found a similar pattern in eleven other multi-clan villages I visited. When I first inquired, I was mostly told that they were two-clan villages, the names of the clans being given in each case. Two of the villages were said to have four clans, two pairs of two. Whenever I sought detailed data, I found male householders belonging to additional clans. In Hohorita I was told that the front half was inhabited by two clans, and the back half by two further clans. In fact twelve clans were represented; when this came to light, my informants explained to me that the clan names I had been given at first were those of the 'main' clans. There seemed to be a strong ideological notion that a multi-clan village (or village section) should consist of two local clan groups. Furthermore, this arrangement affects the marriage rules: once Timumu became joined with Jegase under the same clan name, marriages between the two fused local clan, groups became prohibited.

5. *Complementary Opposition in Village Topography*

If the reduction of multi-clan to two-clan villages had occurred only in Sivepe and a few other villages, it could easily be explained solely by processes of clan fusion which are prevalent throughout the area and which will be discussed further below. But I found it to be a regular feature of the

consolidated Orokaiva villages I visited. Yet historical evidence of earlier settlements precludes the supposition that co-residence of reciprocating marriage groups was ever a regular practice or a preferential rule. Such co-residence can be explained only by Australian pressure towards village consolidation. Far from being congenial to the Orokavia, it may better be regarded as a major potential cause of strain. When the Australian administration planned to intensify this consolidation policy after the Mount Lamington eruption in 1951, Belshaw rightly warned the authorities in a published paper (1951) that the enforced co-residence of affines would create serious social strains which might impede the administration's social development objectives. The Orokaiva response to these social strains appears to have been to restructure the multi-clan villages and give them an organisational form they are more easily able to handle. Under this arrangement agnates, uterine kin and affines live together in the same village but are sorted into two groups of real or fictional agnates. These two groups have affinal relations with one another and stand in complementary opposition in social and political affairs.

In some villages this complementary opposition is further expressed in the position of the two groups in village topography. Nearly all Orokaiva villages are built in two facing rows separated by a fairly wide grassed area known as the *aruha*. For cosmological reasons that do not concern us here, these rows tend to run in the direction of the top of Mount Lamington – from downhill (*veari*) to uphill (*avunu*). The two rows are known as *mende* or *bende*, a word which may mean 'nose' or 'hillock' or 'side of a village'. The two sides are designated as *ihane* and *sose*, *ihane* being to the right of a person facing the mountain, *sose* on the left. In 1965, when Sivepe was rebuilt on a new site, all Seho men built their houses on the *ihane* side while all Jegase men built on the *sose* side.

Outwardly, the topography of this new Sivepe does not differ significantly from the earliest descriptions we have of Orokaiva villages in the early post-contact period. These villages also had two sides. They had the same short connecting lines of houses at the *avunu* and *veari* ends of the village. Williams reports that these connecting lines prevent spirits from coming into the *aruha*. The only differences are in size and in the style of the houses. The basic innovation in New Sivepe lies in the arrangement of social groups on the village site. Real or assumed agnatic links now exist between all the householders on each side, whereas affinal relations exist between all the householders of one side and the other. The door openings of the affines face each other, but they are separated by the wide field of the *aruha*. When people sit down to smoke and chew betelnut in front of their houses, there is easy movement between residents who live on the same side. They frequently visit each other's fires without any ceremony. But one does not cross the *aruha* to sit on the other side without a serious purpose. One watches what happens on the other side; one does not always hear it. There is frequent and friendly contact between the sides but it is clear to the observer that the physical distance between them symbolises an equally real social distance.

This residential arrangement between affines is not traditional. If affines happened to live in a traditional hamlet there were no formal patterns for keeping them at a physical distance. When multi-clan villages were first established, households of the various clans were placed next to each other in a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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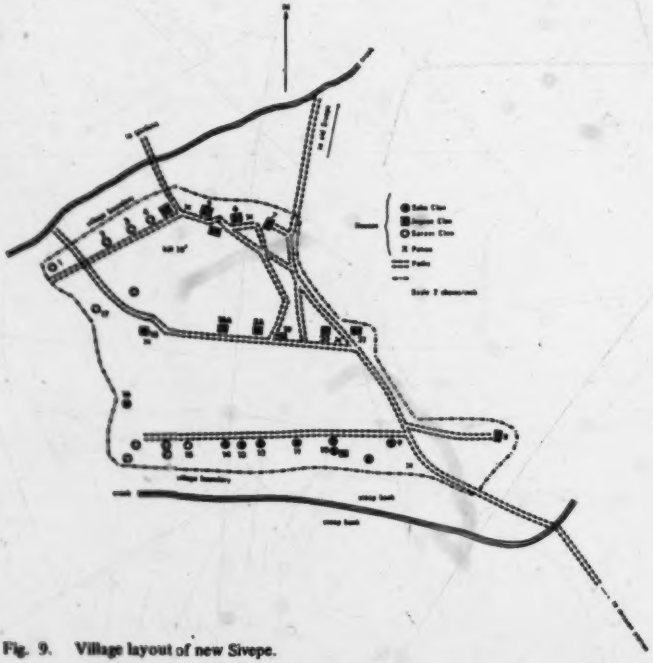

Fig. 9. Village layout of new Sivepe.

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rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in 1963 and 1964 show no formal separation between the clans. Some neighbouring villages, such as Garombi, however, did allocate one side to each of their two clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

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I have now shown most of the evidence for direct marriage exchange and forms of dual organisation. The question that remains to be answered is why this system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

Community rice and cocoa projects

In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally linked to the mission.(1) The main activity of the co-operatives was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

In most instances the village worked as the unit of production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

[10] tribe, which included Sivepe. It occupied the volcanic slopes [133] under fairly uniform and distinctive ecological conditions. The [162] mountain Orokaiva now include roughly the 8,000 people in the closely-settled Saiho Census Division areas, that is, the people who have been called 'Wasida' or 'Periho'. They also include the members of the few adjacent villages who are the only 'Sangara' people surviving the 1951 eruption of the volcano.

[62] Belshaw (1951:2) reported that among the mountain Orokaiva [36] until 1951 'the residential group...consisted of a number of separated hamlets.... Hamlets grouped themselves together under a common name, such as Wasita 1, Isivita 1, Isivita 2 etc.... Each hamlet group, or "village" in administrative parlance, was separated geographically from its neighbouring hamlet group'. The two 'villages', Isivita 1 and 2, had comprised 19 named 'hamlets' and represented the Isivita 'native district' which, Plant[1] (1951: Appendix 4) says was joined with the Sasembata (8 hamlets), Koropata, Wasita, Awala, Soroputa, Sairopi, Mumuni and Wairopi districts[2] to form the Periho tribe. This 'closely approximates to' what Williams called the Wasida tribe.

[162] Shortly before the eruption of Mt Lamington in 1951, Sivepe, Binduta, Nahihita, Pusahambo, Korinasusu and Heherita[3] were grouped under the name of Awala 2 and had a total population of 250,[4] compared with the range of 150 to 400 which Belshaw (1951:2) attributes to 'hamlet groups' in the area. There is a radical difference in size between the small hamlet described by Belshaw and the characteristic nucleated village of post-eruption years (excluding interim evacuation 'camps'). Nevertheless, we hereafter refer to both as a 'village' when not quoting. This does not

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[1] Plant uses the term 'village group' for Belshaw's 'hamlet group' or 'village'. Williams (1930:131) refers to Belshaw's 'hamlet' sometimes as a 'village' and sometimes as a 'village group'.

[2] He earlier (1951:3) omitted Mumuni and Wairopi - see p.31. On Map 1 see Hururuta for Mumuni District, and Ombisusu-Ajeka area for Wairopi District; the Sairopi people are about 4 miles south of the Mumuni.

[3] The last 3 'hamlets' were not re-formed after the eruption; another which was established about this time took the name Awala No.2.

[4] In a sample of 50 nearby hamlets in other groups in the Saiho Census Division the average hamlet size was 36 persons as against 41 in this group. Note also that in 1923 the Awala hamlets (including those in Awala 1) may have numbered 15 (Williams:W.83).

C21 obscure any important differences in structure and our historical
36 data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepe now has a population of 120 and is linked with Binduta, several hundred yards away, and with Nahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

131 Sivepe is situated on the western bank of the Sohu River, a
491 tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepe on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepe it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797 There were very few facilities for formal education in this
871 tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepe, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepe are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepe children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

619 721 634 have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] common patrilineal descent from a usually eponymous ancestor; they 851 611 do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among the mountain Orokaiva; clan membership does not often overlap with 614 tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localized group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

[G21] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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[1] This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

[2] Data from Awala and Wasida villages (see Williams 0.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

[3] Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationsip to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

178 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [73] [62] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt Lamington (see Secs b. and e. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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[1] Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

[2] Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterised as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

614 clan distribution can be obtained from the following summary of diverse information from the mountain Orokaiva and the Aiga.

621 614 The people grouped under the names Isivita 1 and 2 and Sasembata 1 and 2 numbered more than 1,600 in 1948 and occupied 44 villages. By the time of the eruption in 1951 the number of villages had been reduced to 27 (see Plant 1951: Appendix 3) and 40 clans had branches in one or more of them - there were at least 17 clan branches in villages other than these, representing 6 of the 40 clans. Eleven of the Isivita and Sasembata villages consisted only of members of 1 clan, although only 3 of these villages constituted a whole clan.

Williams (1928:124; 1930:101) suggests that a periodic increase in the 'multiplicity of small clans', caused by subdivision, is only 'in part neutralized by the dying out of older clans'. He says that there is a marked consistency in clan organization throughout the Orokaiva area (1925:406)[1] and in 1923 the generalisation that 'local and lineal groups seem to be largely coincident' [648] was true of the Jegasi-Sarahu, i.e., the Wasida group of villages [177] (W.10, 31). In this context he adds that this pattern was altered somewhat by the dispersal caused by a special factor: an attack by the first government patrol on Wasida and neighbouring villages. He does not record the relevant clan branches present in local groups other than the 15 Jegasi-Sarahu villages of the tribe, but 5 of the 7 clans listed are seen to be represented in more than one [361] village. However, only 2 of the 15 villages contained 2 clan branches. The average village consisted of 6 houses (normally nuclear families) and a single-boys' house (W.1), perhaps 25 people in all.

Data collected in 1924 among the Aiga show that there were 37 clans among the 50 villages of the tribe, with an average of about 35 members, or perhaps 'a dozen families', in each clan (Williams 1930:7, 101; 1925:418). Williams says that the 'normal', 'typical' or 'original' residential group was the 'clan-village' - clan and village were coextensive (1925:407; 1928:124; 1930:103, 310; and 107, 131) - but notes that in the larger villages there were 'often two clans or more' (1925:407). In fact, 12 of the 24 clans listed in 36 of the Aiga villages had 2 or more branches there (0.19, 20). Yet Williams might then have argued that in such instances fission would soon be completed and 'the normal conditions restored, viz. the clan locally unified and in

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[1] Cf. Reay 1953:110: Williams' information on the Aiga, Binandele and Tain Dawara tribes reveals 'a social organization practically identical with that of the Wasida people'; see also Williams 1930:7.

621 possession of its own tracts of land' (1928:125). In view of the
614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

614 Fighting within the tribe (emboge), though frequent,[1] was
578 governed by restrictive conventions absent from the conduct of deliberate raids (isoro). Organized aggression was rare and the
[721] deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

[728] In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

safety. Plant for instance (1951:3) notes that the Isivita villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

Williams ascribes the formation of 'somewhat loose' and temporary 'confederacies of clans', which conducted raids upon the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

An indication that within this tribe the named local groups of villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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[1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo javo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Norton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a [103] locality deriving its name from a prominent local natural feature - [128] often a tree or a grove of trees, hence Korinasusu or Korinaturu. For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 All land constituting territory of the Jegase, Timumu or others [428] in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. [B]

A, [See Category 428, p. 111--Analyst] B, [See Category 192, p 40--Analyst]

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

In about 50 years preceding the establishment of their present
166 village the groups now represented in Sivepe had between them
361 been involved in shifts of residence between a series of 14
177 village sites within an area of about 2 square miles adjoining the Sobu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in
[G21] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(1) Migration 1900-50: The Bebehupa moved from Simbehata to Korogombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Nahihita nearby.

[G57] In 1950 the Administration instructed the Bebehupa of Korinasusu and Nahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (p. 3), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

A. [See Category 102, p. 40--Analyst]

614 36 their previous location[1] and the territory of their traditional enemies, the Divinikovari and Togahau, but informants disagreed as to whether this occurred before or after Europeans had established control of the area.

Timunu clan had also originated well to the south near Sasembata (according to its members at Sivepe) but fairly early in the century part of this clan too occupied land around Soroputa nearer the Togahau. Other members of the clan live at Sasembata, Hamburata and Kakita and possibly other villages.

The ancestors of members of Seho clan in Sivepe are said to have moved to the nearby village of Hanimkambari from an area closer to the source of the Sohu River on Mt Lamington. While at Hanimkambari they clashed with the first government patrols in the area. About 1910 some of the Seho people established another village, Asina, nearer the present site of Sivepe, later moving to join Timunu and Jegase groups at Euru. These old villages have now been abandoned but Seho clan is represented in numerous other villages in the area.

6. Localized descent groups

● 621 Our comments on the clan and village have emphasized that the typical village consists of several groups from different clans. Migrations also have usually been by representatives of particular groups. We now turn to an account of the individual's kinship and affinal relationships within the village. This aspect is best approached with an examination of post-marital residence.

591 (1) Residence. Post-marital residence is ideally patrivirilocal. But where residence is found to conform to the ideal, any reference to this norm should be supplemented by further data on the links between co-resident kin if we are to give an adequate account of the kinship composition of local groups; moreover, adults have a wide choice of residence. In fact, of the 12 householders in our sample, 5 were not living in their father's village, although 1 of these was living with his adoptive father (his mother's second husband who was a member of her natal village); the other 4 were living only with matrilateral or affinal kin, or both in one of these instances.

It is significant that only 1 of the 7 men remaining had established his household in a village to which he was affiliated

[1] This location may not in fact have been near Sivepe. It may have been Ombisusu (near the pre-contact village of Wasida) which Williams (W.10) says Jegase people abandoned to establish Suin after the arrival of the government. This may have involved a move down the slopes.

591 only through his father and even in this case his sister, her children and his daughter subsequently married in the village so he is now also living with other cognates and with affines. The 6 other men are living in the same village as their father's kin, but for 4 of them this is also their wife's home village, for another it is also his mother's village and the last man is co-resident with patrilineal, matrilateral and affinal kin simultaneously. In several cases certain people fall into more than one of these kinship categories in relation to 1 person. Six householders have sisters who have married within the village.[1]

In view of the fact that such a variety of relationships is found in this group, Hogbin's and Wedgwood's outline of Orokaiva local grouping, which is based on secondary sources, does not seem relevant to present day social organization in this neighbourhood. They regard the Orokaiva as patrivirilocal[2] (1952-4:64 ff.) and suggest that the parish or local political unit is an exogamous patrilineal group whose members were strongly united and unready to assimilate outsiders. Like Williams (1930:131-3) they mention frequent exceptions to this rule of post-marital residence yet seem to underestimate the degree of variability in the composition of the village and to overemphasize the solidarity of the unilineal group and the importance of the preference for patrivirilocal residence and of exogamy in localized patrilineal groups.[3]

Williams on the other hand says 'the Orokaiva organization very nearly approaches a bilateral system, though in theory it is [582] patrilineal' (1925:407) and points to 'the laxity of marriage [614] regulations'. Even in the small Aiga clan 'exogamy is not a hard and fast rule'; preference for intraclan marriage is sometimes expressed (1930:131-2). It may be thought a 'proper thing to keep the women in the village' - which Williams here implicitly equates with clan - 'in the hope of building up its population' (1925:408).

● 621 A striking proportion of marriages are contracted between members of groups in close proximity. Data available for 35 marriages contracted over 3 genealogical generations by the householders of our sample, or by their parents, siblings or children, show that in 22 cases 1 spouse came either from the

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[1] Four instances of brother-sister exchange marriage among members of Sivepe were recorded (i.e., 8 marriages).

[2] Williams (1930:131) uses the term 'patrilocal'.

[3] The local organization in this neighbourhood seems closest to the category of 'osculant multicarpellary parishes' than any other (see also Hogbin 1963:32). However, we believe that the abstraction, if legitimate now is not the most informative.

C21 current village of the other or from a village within a mile of it, in 11 cases from within a radius of approximately 3 miles of it (in fact an area only slightly larger than the 'neighbourhood'), while 2 spouses came from outside the tribe. Williams (1930:131-3) speaks of 'a certain degree of local endogamy'. The Aiga village '(in which there may be several clans)...cannot be called exogamous even in theory'.

Belshaw too (1951:15) pointed out that marriage is usually between people whose parents do not live far apart. For this reason he warned that amalgamation of nearby 'hamlets' after the eruption might increase tension between groups linked by marriage. [602] But relationships between affines in Sivepe appeared to be generally close and behaviour relatively informal and friendly when compared with other areas (e.g., Inonda).

621 Perhaps there is a similar contrast with former practice (see Williams, ibid:106, 114, 128, 131). However, in 1924 in a third 606 area (the Ope or Aiga), the village, consisting as it might of [578] intermarrying clans, was quite free from 'quarrels and ill-feeling' (Williams, ibid:315) and, moreover, it is 'not unusual' for a man to divide his time quite comfortably 'between the villages of his wife's people and his own' with the result that 'the relation between the father's people and the mother's people is, in practice, so friendly and intimate, that the child associates himself almost as readily with the latter as with the former' - 'so close is the intimacy between the two branches of the united family' (1925:407-8, 410).

166 Individuals freely and frequently change their village of residence, whereas the villages are enduring units. During the years 1957-61 the population of Sivepe and Binduta together averaged 165: there were in the same time no less than 113 movements of individuals into or out of this couple of villages and, according to data collected by ourselves, at least 13 between the 2 villages. The government census statistics reveal neither the cause, exact destination nor frequency of movement by an individual nor are his age or marital status recorded.[1]

614 (ii) Formal features of the local patrilineal groups. In dis-
613 cussing the local disposition of clans, we have already taken 'clan branch' to denote the representatives of the clan living in one village. We retain the term not only for the Timmu group but also for the members of the 4 Jegase lineages living at Sivepe, even though these villagers do not constitute a group of co-resident agnates with functions to mark it as a distinctive unit within the

[1] Thus the figures do not differentiate between adults and children (see McArthur 1956:324-36).

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 [622] The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[1] Cf. kiti jigari (p.30).

[515] [2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

613 Overall the land of Berekipa lineage is more fragmented, though less scattered than the holdings of the Bebehupa, which are larger.

From detailed accounts of completed land transfers between the Berekipa and Arehu, whose present holdings are mostly interspersed[1] near the sites of Simbehata and Pusahambo, and from other historical data we infer that this land previously formed far more continuous tracts belonging to descent groups such as these. To a noticeable extent the spatial relations between the shares of the Bebehupa, Berekipa and Arehu in the extended tract of Jegase land marked by the sites of former settlement can be construed as a teritorial correlate of the pattern of each lineage's ancestors' migrations to or from local groups there. The shifts of residence relevant today are remembered in some detail.

e. Land use and mobility

241 Williams (1928:156) advocated a change from shifting to sedentary agriculture for the Orokaiva on the grounds that the former was wasteful of land and labour, and that the tendency to form small independent settlements resulted from the 'lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site'. He considered shifting agriculture to be 'one of the most potent causes of village and clan disintegration'.

[361] Keesing (1951:8) noted that the mountain Orokaiva had generally resisted the post-war movement to consolidate into larger villages. So long as the 'mobile economic base' persisted, he considered that resettlement into larger permanent villages after the Mt Lamington eruption would be unlikely to succeed. The Orokaiva showed no inclination to adopt more intensive sedentary cultivation and he predicted that a return to shifting agriculture would involve 'seasonal movement' outward from the environs of the settlements to new cultivation areas, and later the resumption of settlement in scattered hamlets. In view of these assertions about the connection between agricultural practice and settlement patterns, upon which Williams and Keesing based their discussion of economic development, it may be useful to examine the relations in Sivepe between mobility and village stability on the one hand, and traditional land use on the other.

● 62 [361] [721] Keesing suggests that the tendency, mentioned by Williams, for the Orokaiva to disperse into smaller residential units since pacification had been particularly marked on these heavily populated slopes. The suppression of intertribal feuding probably

[1] To a lesser extent they are also interspersed with parcels of other lineages' land.

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepe. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepe people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

166 [342] Individual mobility is still high, as we have already noted. Mobility is facilitated by the fact that material for housing - wange timber framework, blackpalm floor, walls and roof-thatch from sago trees[1] - is usually readily available and houses have an average life of only 4 years.

361 [621] The patrol of 1948 which found this area 'literally a mass of small hamlets' alludes to a possibility that the proliferation of these groups had become conspicuous only 'since the Japanese invasion'.[2] The long-term trend after the 1951 eruption, the next catastrophe to cause displacement of population comparable with the wartime upheaval, was towards effective consolidation instead of the proliferation of small groups, such as the scattering of post-invasion days.

361 178 62 [177] When people began to leave the evacuation camp there was a spontaneous trend, which was encouraged by officials, towards building larger villages or, alternatively, clusters of 'hamlets' within sight of each other (Belshaw 1951:5 ff.).

Plant (1951:6) and Belshaw (1951:6) suggested the following reasons for this tendency: that reconstruction would be easier if large numbers of neighbours co-operated; that the renewed interest in co-operatives led to a desire for larger groups; that the example of Ilimo Camp had given people the notion that larger groupings were correlated in some way with higher standards of living; that the Europeans, whose goodwill was now evident, favoured bigger settlements; and finally that their common disastrous experience had reinforced their sense of unity.

62 Although the present-day villages are smaller than those established at the start of the resettlement before the danger area had again been occupied, they are considerably larger than their counterparts of pre-eruption days: Belshaw (1951:2) says that the population of 'hamlets' in the area was of the order of 20 to 80 and the population of the 'hamlet group' under one name ranged from 150 to 400. At present in the Saiho Census Division the average population of the residential unit, in nearly every instance a nucleated village, can be no less than 175.[3]

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[1] Some informants stated that materials (except sago) could be collected from any village members' land but most claimed they sought wood only from lineage land unless invited to use trees by particular kin from other groups.

[2] This report was probably the major source of Belshaw's and Keesing's information on the pre-eruption situation.

[3] We do not know the average size of a group of villages known by a 'hamlet group' name such as Awala, Waseta, etc.

[621] At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[754] [166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [066] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

[171] [241] [361] Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as Williams says, the Orokaiva move their garden sites frequently. Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Wahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

241 With the passage of the cultivation cycle over a Chimbu sub-
171 clan's territory, gardeners move from one men's house to another,
361 either as a persisting group of agnates working contiguous hold-
ings, or as individuals joining more transient groups which are dissolved as gardens near the house revert to fallow (ibid:98; Brown and Brookfield 1959:68). As they extended their cultivation to other areas, 37 per cent of a sample of 193 men had moved from one men's house to another over a period of 16 months (Brookfield and Brown 1963:98) and the men's houses themselves last no longer than 5 years (ibid:12).

241 In Sivepo on the other hand, gardens tend to be scattered and isolated. Father and son often have adjacent plots in one garden area but the son usually has at least 1 other garden elsewhere. A young married man often has 1 garden on the land of his wife's father, whom he will periodically assist in his garden. Older men in general adopt the technique of progressively planting and clearing a single large area while younger and more active men, usually with more obligations to affines, tend to cultivate several scattered smaller plots.

[62] There is no local group or extended kinship group which
[602] commonly combines to make a block of contiguous gardens. Even when all members of the village plant simultaneously for a special feast, the gardens are not adjacent. A man usually takes advantage of the choice of exercising planting rights on the land of a wide range of kinsmen (not necessarily his agnates), both those within the village and to a lesser extent kinsmen from other villages. Several had current gardens on their mother's brother's land, some on the nearby land of their wife's brother, sister's husband or daughter's husband.

613 In other Orokaiva areas (such as Inonda) gardeners of one
614 lineage often have a reciprocal arrangement with another lineage
184 of the same clan in the village to cultivate a parcel of their land with them, but this is not a common practice at Sivepo. In the few cases where several kinsmen have made adjacent gardens the gardeners are mostly cognatic kin from different clans or villages and each will probably make his next garden with different kin or on an isolated parcel.

166 Encroachment on boundaries is feared[1] but does not seem to
17 result in repeated changes of residence as it does among the
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[578] [1] The 3 instances of boundary disputes recorded were between Bebehupa and Usohu people. According to the older men the Usohu were formerly a Jegase group and they share many boundaries with the Bebehupa; the recent split in Binduta between the 2 groups has been accompanied by friction over a number of issues including the definition of boundaries.

171 619 121 (3) the district had a compact territory (unlike the tribe) but its members were not all bound in mutual support in attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

614 171 121 (4) the Orokaiva clans which were scattered, often through several districts, did not have a single territorial focus and were radically different from a Chimbu clan; the latter is much more localized in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

121 171 In the present study an adequate discussion of the hypothesis requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. Much of our earlier discussion has dealt with residence and local organization and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organization between these Orokaiva and the Chimbu (or Enga, etc.).

171 621 121 Over and above these differences there is in the principles of organization of the local communities of the 2 peoples an essential similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

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breaks down between [these] clans with land loans, gifts and membership changes....
(Brookfield and Brown 1963:158)

Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-3).

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Individuality in land control is reinforced in both societies by the absence of formal inherited positions of leadership and a pattern of interpenetrating territories is caused by processes of individual acquisition and retention (see Brookfield and Brown 1963:141, 156).

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

The Orokaiva comprise a number of groups, with mutually intelligible dialects and a high degree of cultural uniformity, extending some sixty miles northwards from the Hydrographers Range and from the coast inland to the foothills of the Owen Stanleys. The overall population density is only 9.1 persons per square mile but the distribution is highly uneven (see Table 1.3) with major concentrations on the fertile northern slopes of Mt Lamington (63.8 persons per square miles in the Saiho census division) and the coastal periphery (62.2 in Gona census division). The grassland and more northerly forest areas are only sparsely populated.

Table 1:3

Popondetta sub-district: demographic characteristics of selected census divisions, 1963

	Crude population density (persons per square mile)	Cultivable acres per head	Mean size of settlement
Saiho	63.8	9	216
Gona	62.2	6	221
Oro Bay	43.6	9	103
Sangara	26.7	9	197
Popondetta	17.2	19	109
Togahau	16.9	25	146
Asigi	9.1	53	87
Buna	8.4	31	94
Huhurindi	6.7	53	69

Source: Population data derived from DDA 1963 census data (1961 Popondetta, 1962 Saiho).

Small villages are the characteristic unit of settlement, with houses disposed in a more or less rectangular form around a central earth or grass 'square'. Their size varies in relation to overall population density, but nowhere exceeds 720 persons,[1] the mean being 144 persons. The social organisation and economy of the Orokaiva contribute to considerable instability in settlements, both in composition and site.

A village normally contains more than one clan branch[2] and consequently is not necessarily a landholding unit. Its members may have closer ties of kinship with residents of other villages than

[1] Kiorota village in Saiho census division.

[2] See p.10.

621 614 [431] [476] with some of their co-residents; nevertheless, common residence implies some community of interest and a degree of group solidarity that is reinforced by Administration and mission policies which recognise villages rather than descent groups as functional entities.[1] Marriages between members of the different clan branches within the village reinforce this solidarity, which is expressed in such ways as daily food gifts, co-operation in certain tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 [611] [613] (i) Descent. Every Orokaiva is recruited by birth into the clan of his or her father. All members of a clan claim, but cannot necessarily trace, common descent from a usually eponymous ancestor. Each clan is subdivided into named sub-groups or lineages which trace their origin to a named ancestor.[3] A lineage comprises, on average, three households. Usually several clans are represented in a single village, members of a single clan (clan branches) being scattered among a number of neighbouring villages. Lineages are much more localised in character, frequently being confined to a single village and tending to occupy one section of it.

[622] [554] (ii) Leadership. The Orokaiva social system incorporates no central authority or hereditary leadership. Instead, it is characterised by 'big men' (embo dombo) and an ascendency of elders who have proved themselves equal to the task. Such men command the respect of the community - based upon observed qualities of generosity, diligence, wealth, ability to make wise decisions and skill in arranging ceremonial activities - but it confers no sanctions.

571 [592] [594] [614] [166] (iii) Residence. Post-marital residence is ideally patrivirilocal, but in practice people have a wide choice between the village of patrilateral or matrilateral kin or of affines, and it may be changed at any time. The composition of individual households within the village likewise varies, although the basis is generally the nuclear family. The distribution of clan branches through a number of villages is closely related to access to the group's land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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MAP 4

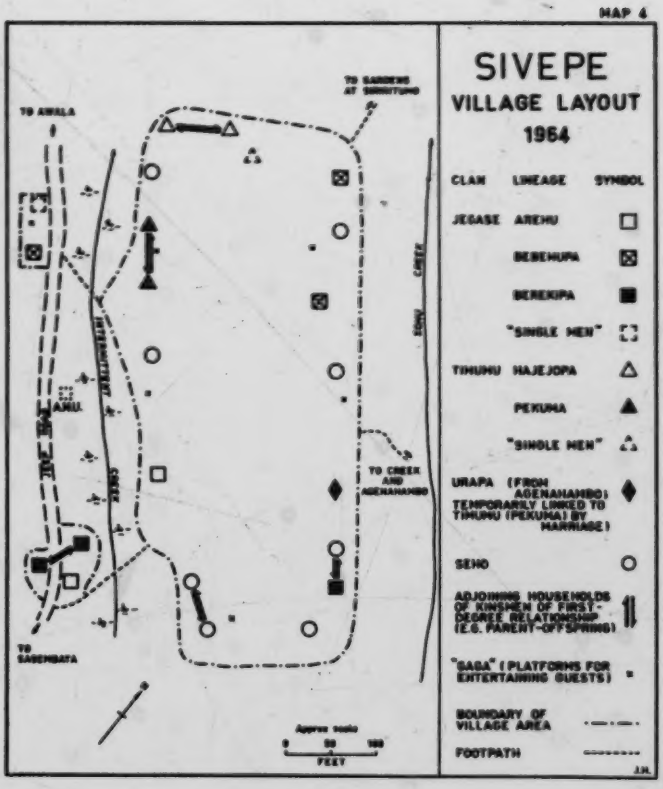

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Table 4:6

Sivaye: non-traditional household property, December 1964
(Figures represent numbers of items)

Household no.	1	2	3	4	5	6	10	11	12	14	15
No. of adults	2	3	2	3	1	2	2	3	2	3	2
Tools and equipment:											
Axe	2	2	2	2	1	2	2	2	1	1	2
Bush knife	3	4	3	4	2	2	2	3	3	3	3
Grass knife	2	1	1	1	-	1	-	3	2	2	2
Shovel/spade	2	-	-	1	-	-	-	2	1	-	1
Saw	-	-	1	-	-	-	-	-	-	-	-
Fork	-	-	1	-	-	-	-	-	-	-	-
Pocket knife	2	4	1	2	2	2	2	3	1	2	1
Saw	-	-	1	-	-	1	-	-	-	-	1
File	-	1	1	1	-	1	-	1	-	-	-
Hammer	-	-	-	-	-	-	2	3	1	-	1
Adze	-	1	-	-	-	-	-	-	-	-	-
Bale	-	-	-	-	1	-	-	-	-	-	-
Spanner	-	-	-	-	-	1 set	-	-	-	-	-
Shotgun	-	1	-	-	-	-	-	-	-	-	1
Sack	2	-	-	3	-	1	-	-	-	2	-
Household:											
Cutlery	21	13	2	11	2	9	2	24	11	4	4
Cooking pot	3	5	1	1	-	4	1	4	4	2	3
Dish/plate	9	20	9	10	-	8	3	12	15	10	13
Mug/glass	2	9	1	5	-	4	-	5	2	5	4
Teapot	-	-	-	-	-	-	-	1	1	-	-
Needle and thread	-	-	-	-	-	Yes	-	-	Yes	Yes	-
Hurricane lamp	2	1	1	1	-	1	-	-	2	1	1
Torch	-	-	-	2	-	-	-	-	-	1	-
Radio	-	1	-	-	-	-	-	-	-	-	-
Personal:											
Blanket	2	3	-	-	1	4	1	3	3	1	1
Sheet	2	4	3	-	1	1	-	2	1	-	1
Pillow	-	1	-	1	-	2	-	1	1	-	-
Mosquito net	-	-	-	-	-	1	-	-	-	-	-
Sleeping-mat	1	3	-	2	-	-	-	1	2	2	-
Towel	3	7	1	1	1	3	-	1	1	1	-
Groundsheet cape	-	-	-	1	-	-	-	1	-	-	-
Suitcase/kitbag/pack	4	4	2	-	-	2	1	5	4	1	3
Laplap	9	2	1	-	-	2	11	3	5	2	1
Shirt/blouse/dress	5	4	3	4	2	2	1	7	6	2	2
Trousers/shorts/shirt	9	11	3	3	1	7	-	13	5	5	4
Underwear	-	2	-	-	-	-	-	1	2	1	1
Sweater/coat	-	-	-	1	-	-	-	-	1	-	1
Footwear	-	2	-	2	-	1	-	-	1	-	-
Belt	-	1	-	-	-	1	-	1	1	1	2
Handkerchief	-	-	-	-	-	-	-	-	-	1	-
Hat	-	1	-	-	-	-	-	-	-	-	-
Hair oil/powder	-	-	-	-	-	1	-	-	-	2	-
Comb/brush	-	-	-	1	-	-	-	4	-	-	-
Toothbrush	-	1*	-	-	-	-	-	-	-	-	-
Mirror	3	2	-	2	-	1	1	2	3	2	1
Scissors	-	1	-	-	-	-	-	-	-	-	-
Biro/pencil	-	2	-	-	-	-	-	3	-	-	-
Purse	-	2	-	-	-	1	-	-	1	-	-
Lighter	-	-	-	-	-	-	-	1	-	-	-
Watch	-	-	-	-	-	-	-	1	-	-	-

* Acquired during the second world war!

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Notes. 1. There is also some communally-held rubber-tapping equipment (tapping tools, spouts and a bucket) in the village, provided by the owner of the local rubber factory.

2. Considerable use is made of discarded metal containers, e.g. large cans for cooking pots, screw-top tobacco tins for lime, and beaten-out drums for hearths.

36 Like Sivepe, both sites of Inonda were laid out as line villages.
[62] Here the tendency for grouping of kin is more marked but still not
[342] rigid (see Map 6). The houses, with a mean size of 282 sq ft, are built largely of local materials, but incorporate some exotic items including nails, and, in certain cases, corrugated iron roofing from nearby wartime dumps. In addition to the residences, there is a rest-house, a copra-drier, a small trade store and a chapel. Brief weekly services are held by a villager who was once a mission teacher and who also owns the store.

162 In January 1964, the resident population of the village was 35, with 16 adults, a drop of seven since the time of Crocombe and Hogbin's survey (1963:58). The nine households had an average of 3.9 individuals or 1.8 labour units. No births or deaths occurred during the survey but there were three arrivals and seven departures giving a total of 31 people, including 16 adults, in January 1965.
166 In addition, several people from other villages stayed temporarily with kinsmen in Inonda. At first, there were two local clan branches in Inonda, the Andirihaha and the Jego'undi, the latter being represented by a single family.[1] When the village moved in 1964 the Jego'undi man, having virtually no rights to land near the new site, decided to move instead to the nearby village of Mosou, which is built on his land. He, his wife and four daughters were from this point (July 1964) excluded from the daily interviews, which explains the most prominent change, namely the loss of female children, in the age-sex structure diagram (Fig.4:2).[2] In contrast with Fig. 4:1 for Sivepe, Fig.4:2 shows neither males nor females in the 15 to 19 years age group; the largest concentration of adult males is in the 20 to 24 years group, where Sivepe has none. The proportion of long-term absentee adult males was 16.6 per cent in January 1964 (i.e. two out of twelve) and 23 per cent in 1965, the rise being due to the departure of the Jego'undi man. One absentee is normally resident in Port Moresby and seems unlikely to return except on retirement; the other, his brother, lives less than three miles from Inonda at Ijika near Hohota, which is his widowed mother's village, and he constantly asserts his intention to return to Inonda.[2]

621 The major agnatic links of the Andirihaha people are with Hohota, but extend to Kakandetta and Hanakiro, ten miles away, while

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[1] A third local clan branch, the Horemba'undi, is represented in Inonda by a single household, which is resident through affinal ties and it has no right to Inonda lands, although it is allowed to make food gardens there.

[2] i.e. two of the three 'absentees' continue to reside in subsistence villages, unlike the Sivepe absentees who are all in, or seeking, full-time wage employment elsewhere.

[TEXT CONTINUED ON PAGE 55]

A,[See Category 162, p. 55--Analyst] B,[See Category 162, p. 30--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

MAP 8

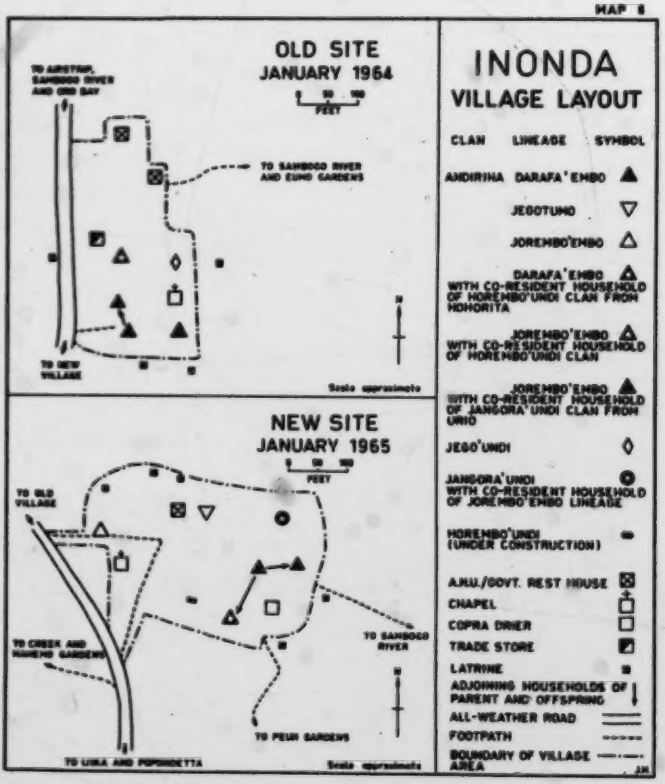
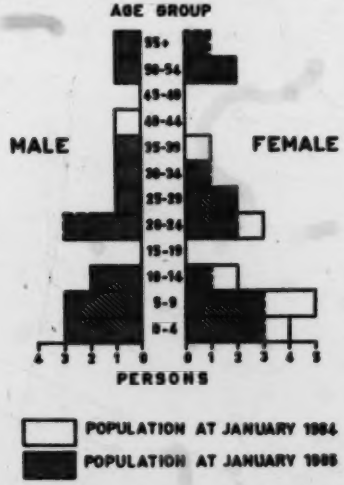


FIGURE 4:2

162 INONDA: AGE-SEX STRUCTURE

SHOWING NET CHANGES
JANUARY 1964-JANUARY 1965



621 non-agnatic ties have led to close relationships with people in Ajoro, Sewa, Mosou, Urio, Jonita and Hohorita.

463 As in Sivepe, most of the men have had labouring jobs and two had also been teachers for the Anglican mission - one for 27 years, the other for 6 years, including 4 in New Britain.

871 Three household heads, all over 40 years of age, have had no education. One household head and one woman reached standard V and the woman's husband completed standard IV. Two young men, one a household head, served as farmer trainees at Popondetta Agricultural Station, and another completed eleven months of the course at the aid post orderly training school at Saiho.

554 In addition to his six years with the Anglican mission, one of the ex-teachers, a man of 35, was for two years local government

When the Japanese landed at Gona Mission in . , 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

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Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

[423] ** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[425]

is still transferred in most marriages, including those which take place in a church.

Polygyny was accepted but probably not frequent in traditional Orokaiva society. In spite of mission opposition there are still instances of polygyny but the great majority of marriages are monogamous. Marriage outside the clan is considered preferable but there are numerous cases of marriage within the clan. The village is not considered an exogamous unit. Marriages are usually patrilocal but this is not a definite rule (cf. Williams 1930:130-3).

III

In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

[1] See map, p.84.A

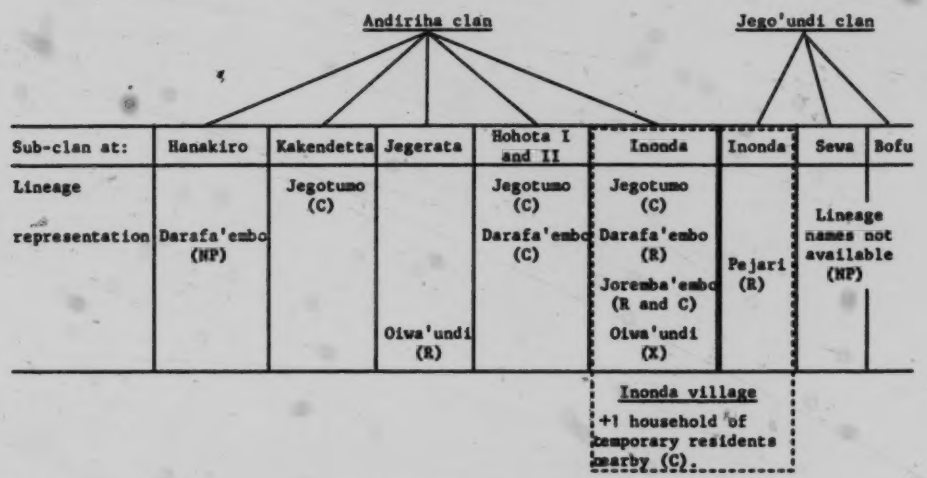
[2] See diagram, p.85.B and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

GH 621 589

Diagram showing locations of Andiriha and Jego'undi clans and social units comprising Inonda



C = contributed to bride-wealth
R = received share of bride-wealth
NP = took no part in the exchange
X = sole male representative was youth adopted into groom's father's household

583 [85] These people were expected to return a feast of similar size for the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 613 The economic consequences of the payment were greatest in four households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 614 This was not an ideal situation in which to investigate the extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 602 The range of genealogical connections between the groom and heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 621 Co-residence in a village may also have some influence. Some people, though not all, from each of Kakendetta, Hohota I, Hohota II and Urio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Mosou, Ajoro, Sewa or Jegerata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

even have been sufficient qualification for admission to a group, but without precise and comprehensive genealogical information this cannot be asserted. It is possible, for example, that some households could trace approximately equivalent but very distant genealogical relationships to both bride and groom, and that place of residence then determined the group with which they were aligned. 583 621

Williams (1930:137) describes a marriage payment typical of the mid-1920s. It included no cash and the traditional valuable would have been worth only $10.00 at 1962 prices. The traditional valuables in the bride-wealth described here were worth about three times as much and in addition $80.00 in cash was included. The people clearly regarded the cash as the most important component. Those genealogically and residentially closest to the groom contributed most cash; there was considerable formality associated with the payment of it; and in discussions of the bride-wealth the dominant topic was the cash component. The bride's father and brother received most of the cash but only a small proportion of the traditional valuables and they showed little interest in the latter. Households with lesser claims generally received items other than cash. The importance of traditional valuables in marriage payments has therefore declined markedly as a result of the introduction of cash to the economy. 583 437 178

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241 about one and a half miles (thirty-five minutes walk) from the village on part of the land known as Inota. They are planted contiguously: partly to keep the amount of clearing and pig fencing to a minimum and partly to ensure companionship while working in the garden (which may be related to the traditional but now unnecessary consideration of mutual protection). Because of this practice and for other reasons enumerated below many people have made their gardens on land in which their lineage has no proprietary rights. Each household has at least one garden which is currently producing and one recently planted but not yet in bearing on the Inota block. Three of the households have gardens (or are in the process of making gardens) on other Inonda lands (Eumo and Sesehauta) while three other households have made or are making gardens on land at Hohota village. Two of the latter are new gardens and they are situated about one mile from Inonda and the other, which is currently producing, lies west of Hohota village about 4½ miles from Inonda. Two other gardens made by Inonda people on Hohota lands in 1960 have now been abandoned.

The people say that in earlier times they made special feast gardens to provide food for taro festivals, death [621] feasts and other occasions. Feast gardens were often cleared on a community basis by all the working members of either the village or a sub-clan within it, but were then subdivided and a section was allotted to each of the households for cultivation. [574] The Administration has discouraged large scale taro festivals and none has been held for several years. However when a man from the village died during the survey, the members of his family decided to make a feast garden on a piece of ground which he had cleared just before his death.

We were shown two feast gardens, one made in 1953, and the other in 1960. The precise boundaries of the one made in 1953 are no longer recognizable, but the garden was apparently [574] a very large one of five acres or more. It was made to provide food for a feast held when refugees (from the Mt. Lamington disaster) from Sewa and Ajoro villages left Inonda to return home. The other feast garden, which is now abandoned, was made at Hohota by a man who has no hereditary rights in land at Inonda. He has three married daughters, two of them married

423 only permissive rights at Inonda or any nearby place. He has
241 been living at Inonda for some years on a temporary basis and
613 is dependent for gardening land on his relatives by marriage at
614 Inonda. He has also been loaned two pieces of gardening land at Hohota, where he used to conduct a church school, and is obliged to accept whatever land is made available to him. One of his gardens in Hohota is planted on land held by his mother's sister's husband's brother's son, and the other on the land of a senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

423 - Informants claimed that a man in need has the right
241 to make gardens on the land of the mother's brother though this
604 is exercised only if it is within walking distance of the planter's village. The only instance noted was that of a man who began preparing a new garden on his mother's brother's land at Urio just after our survey was completed.

423 Hunting and foraging rights: Any primary member
614 of the Andiriha and Jego'undi sub-clans in Inonda can hunt or
621 forage on any portion of the Inonda land which is covered with
224 virgin bush, kunai grass, or second growth. Likewise any
[319] villager may take such timber or firewood as he needs from the virgin bush, and although it is said that one may also take these

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

423 transfer at a feast shortly after the grandson finished his school-
614 ing. Along with the rights he was given the obligation to look
224 after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

423 All Inonda people, along with all members of the
224 Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the
628 purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

423 Fishing rights: For the purpose of fishing rights,
226 the Girua river is divided into sections, each of which is
621 associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

423 The Inonda portion of the river is held jointly by the
226 Andiriha and Jego'undi sub-clans and any primary member of
614 either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

423 permission, custom does not permit of permission being withheld
226 unless the circumstances are exceptional. On two occasions
614 during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

423 On rare occasions Andiriha people from distant
226 villages have been given the right to fish in the Girua river to
628 obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

226 Rights to that part of the Sambogo river which flows
423 through Inonda are not held jointly by the sub-clans. There are
614 five divisions in the river, each of which is held by one or other
613 of the lineages. One particular pool is held by an individual,
[425] the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not
[621] necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

241 Later again, in line with an agricultural officer's recommendation,
472 he encouraged each son to plant individually. He proposes that his
592 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.
428

B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with its clear-cut subordination, has no traditional precedent and is [571] incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

463 472 Seniority of birth. This seemed to be of positive significance for entrepreneurs who based their operations on cash-cropping (Crocombe 1967:5). It may possibly be of negative significance for traders. Three of the four first-born sons fall into the least successful category and the fourth into the middle category.

[462] Sex. All those in the sample are men with the exception of L, who is the most successful of all. Her elder brothers were killed in the Mt Lamington eruption and she says she is regarded by her father as a son in many respects.

[614] [571] Traditional leadership roles. The only position of traditional leadership recognised today is that of sub-clan head. Only one of the entrepreneurs in the sample (E) was a sub-clan head, one was the son of a sub-clan head and in other cases the relationship was more distant. As most sub-clans contain only about two to ten men, sub-clan leadership seems clearly to give no advantage in trading. It may possibly be an inhibiting factor but we have no evidence on this point.

463 472 571 621 Non-traditional leadership roles. It is to be expected that Orokaiva entrepreneurs will hold responsible and respected positions in their community. The table below shows a positive correlation between entrepreneurial activity and elective community leadership roles. Seven of the twelve subjects hold such leadership roles. A local government councillor represents over 200 people (and one is president of a council serving about 10,000 people). The co-operative chairmen are elected by some hundreds of people and a church councillor represents about a hundred people.

Table 6

Elected positions of responsibility in the community

Elected position of responsibility	A	B	C	D	E	F	G	H	I	J*	K	L
Local government councillor	'	'			'		'		'			'
Church councillor					'	'						
Chairman of Co-operative					'		'					
President of Women's Club												'
Total	1	1	-	-	3	1	2	-	1	-	-	2

* J has been invited to become chairman of the local co-operative store which he helped to establish.

Subject E, the only clan head in the sample, holds important elective posts as local government councillor, church president, and chairman of a co-operative society. He had also previously held paid positions carrying responsibility and authority and requiring initiative.

463 An examination of whether elective positions of responsibility
472 were held before or after entrepreneurial activities commenced
571 suggests that persons with leadership qualities already recognised
621 by the community are more likely to engage in such activities.

Table 7

Time relation between entrepreneurial activity and elected position

Time elected	A	B	E	F	G	I	J	L
Before trade store opened	'	'	'	?	'	?		'
After trade store opened							'*	

* J has been invited to become chairman of the local co-operative store which he helped to establish.

The holding of an elective position of responsibility concomitantly with carrying on entrepreneurial activities is not necessarily an advantage to the entrepreneur. Several of the subjects had found that their community duties were time-consuming and interfered with their trading activities.

463 Household composition. It is impossible to say whether a large
472 household tends to inhibit trading success but the data suggest that it may.

592 Group I subjects averaged 6.5 persons per household, group II, 5.75 persons and group III, 5.25 persons.

Many entrepreneurs complained that relatives, particularly older ones, took food and other items from the stores without payment but we have no measured data on this point.

Table 8

Size of household

A	8	E	5	I	10
B	3	F	4	J	3
C	10	G	5	K	6
D	5	H	9	L	2
Average	6.5		5.75		5.25

463 Residence in or out of village. In traditional Orokaiva society
472 members of a village or clan were bound together by a complex system
602 of kinship ties and obligations (Williams 1930:335). Subsistence derives from the land and social security from the fulfilment of
[366] obligatory ties which bring reciprocal returns in times of sickness,

Table 18

Loans received

A	$1,500 (land board)	E -	I $200 (from brother-in-law for store)
B	$178 (from younger brother for store)	F -	J -
C	-	G -	K $390 (from brother and share money for store)
D	$1,500 (land board)	H $1,500 (land board)	L -
	75%	25%	50%

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual
[621] protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621] [614] Ombi and Tara contain two clans, Mumu and Kuei. The Mumu clan is concentrated in Ombi village and the Kuei in Tara. However, Ombi has three Kuei households and Tara has one Mumu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1934:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 40ff.--Analyst]

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber processing unit, and by joint discussions on the nature of the
621 new tenure system. Interclan co-operation is seen in the leader
182 of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Musu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Musu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Musu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to consider-
[556] ably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being esthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Boiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

main road, or even facing each other on opposite sides of it. Although this is clearly the wish of the majority of the people, it does not suit all of them. There is some talk that it increases the danger of sorcery, and certain individuals fear that it will mean an increase in the burden of responsibility of the village maintenance type. Thus some hamlets have not joined in the general move, and others have split on the question. Another question that cannot be answered at the moment is, how far was the earlier hamlet system a result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

The inheritance of land is mainly patrilineal; but a man may work his wife's land, and even, with the assent of her relatives, inherit a share in his mother's land. This means that individual members of a clan, instead of inheriting land jointly from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

At the time of my visit to the area in April, it was confidently expected that once the people started building homes on the new sites, all would be well. In fact the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

121 January, 1951 and 1967), both in Sivepa and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

628 The concept of a "closely allied" village is a difficult one: it is not often, in these days of peace, that a village [621] really acts as a corporate unit, so that contacts between villages [571] tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved [764] village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Hohorita, with 400 inhabitants, when an old man died at Sombou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepa, Inonda,

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
[797] It was characteristic of both the church and the government council organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[A] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoga, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
578 village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepa where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepa men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepa and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepa in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated
[731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practices what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of
[582] residence. Within this area, marriages are contracted, cannibalistic
[721] raids do not occur and fights tend to involve comparatively little
[266] bloodshed. The circle of "intra-group morality" varies for every

177 The clearest example of this was in the computation of bride price.
436 As I mentioned, the Sivepe people, in calculating the value of bride
583 price, translated all gifts of trade goods (clothes, kitchen utensils, etc.) into money terms, speaking of a bride price of 72 pounds when the actual cash component was only $28. (The word "dollar" is well-known to Orokaiva but as yet imperfectly accepted in discourse as a unit of value.) Inonda, however, in calculating the value of bride price, went further and converted also the pigs, valuables and tapa cloths into money terms, as was described in Hogbin, 1966. Upon inquiring specifically whether the Inonda people calculated bride-wealth in this way, I found that Hogbin's presentation corresponded with the Inonda method of estimating. In other words, Inonda people spoke of a 100-pound brideprice, when the actual gifts were as follows:

Cash	$ 80.00
Household goods	13.00
Pig	60.00
Bark-cloth	9.75
Food	10.60
Traditional valuables	28.20
Total	$201.55

Sivepe people expressed some horror at the thought that this should be referred to as a $200 bride price; to them the gifts of pig, bark-cloth, food and traditional valuables were gifts of a special type that could not be equated with money. I asked one informant whether this was perhaps a modern trend; "not modern but silly," he replied.

177 This reply reminds us how hazardous it is to place a number of
184 phenomena, found in different villages, on a unilinear kind of acculturation continuum. Nonetheless, I believe that the facts show some tendency for Sivepe to be more "acculturated" than Inonda, even though the differences are slight, and apply only to part of the Inonda population.

Section 12: Impact of External Influences on Community Organisation

184 One of the difficulties of our research design is that Sivepe
●621 and Inonda are of different population size, Sivepe having exactly three times the population of Inonda (135: 45). Hence, the community organisation of the two villages would naturally differ for that
[614] reason alone. A second difference lies in the clan composition of the two villages and the changes in clan composition over the period under consideration. Pamba contained three clans: Sebo, Jegase and Timusu and modern Sivepe still contains roughly the same family alignment except that the members of the Timusu clan are now calling themselves

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garoubi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, [554 dancing expert and some others. One of these experts, the feasting [622 expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility [614 for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari ombo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

manageable size. Jovareka was definitely not a hereditary leader in Sivepe; in fact, he was not even born there. On the other hand, the two men he saved belonged to the leading family of the Seho clan, which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

The evacuation camp seems to have placed a heavy burden on the village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

471 well as cash crops. The clan or village has overriding rights to the
product only when a feast is being held; at such a time, people are
encouraged to make extra plantings and are expected to donate what
has been grown in excess to their own requirements. Such donations
are represented as "voluntary" by informants.

471 The second type of organisation is that brought about by the
241 Australian government's insistence on the planting of village quota's
621 of rubber and coconut. Here, as I explained, an undivided area was
planted by "all" members of the community, and the product appropriated
by individuals on a sort of roster system. The land remains owned
by the individual who made it available and it will revert to him
when the trees die off. It is only the trees that are "communally"
owned. There is no traditional precedent for this kind of arrangement.

471 The third type is that described on the preceding page. For
241 this system, the selected plot of land is divided into sections called
tane. This is common procedure also when subsistence crops are planted.
427 Each tane is then lent to a person who will plant coffee or rubber
there. This lending of tane is likewise traditional; a man described
how his sister, after a quarrel, came back to Sivepa (she had married
out) and he at once gave her a tane from his new garden to look after.
The only difference, in the case of tree crops, is that the tane
is lent out for a longer period, in fact as long as the borrower
continues to harvest the trees (regularly). No new "communal" coffee
plots of this sort have been established in Sivepa for many years;
there was, however, such a plot allocated to rubber around 1964, as
I have described. It was called a "company" and the agricultural
officer told me that the government did not like supporting these
"companies," preferring development of "individual holdings."

479 In the neighbouring village of Sasembata, where a rubber coopera-
245 tive was set up, a new variant developed in 1967. This was also called
a "company;" its main asset was a small factory for processing the
rubber. The "company" was also allocated a plot of land, owned by
a village man, where trees were planted by a work group, with the
intention of tapping and selling the rubber for the benefit of the
company--there was some talk of saving up for a truck to cart the
rubber and other village products. In addition, villagers planted
trees on their individual land and rubber harvested from that land
would be processed at the factory and proceeds would go to the grower.
This scheme met with some sturdy opposition from the agricultural
officer. The fear of the administration was always: cargo cults,
communism, fraudulent accounting. Four Sivepa men were actively
occupied for some weeks on helping to build the rubber factory. They
also contributed $10 membership fee. Members were drawn from all
villages closely related to Sasembata.

479 Cooperative principles were also not infrequently followed
443 in the setting up of trade stores. Rimoldi (1963) reported one such
venture, involving 11 villages and centred on the Sasembata mission
station. The savings seem to have totalled $60 from each of 12 clans,

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepa clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepa and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Tisumu clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Ambi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affina.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepa, as well as Hoborita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.
The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
[578] group has solid land rights close to the village. Thus, the resettle-
[628] ment of a group of Garumbi people in Sivepa in 1966 may well be stable because these people own land within a one-mile radius from Sivepa. But the resettlement of Dapari people in Mumuni was unstable because the Dapari land was more than one mile away. In fact, the distance between Mumuni and the Dapari lands could not have been much above two miles, but this is still too far for subsistence gardeners. It is therefore clear why Sivepa people did not agree to stay at Awala after 1951: their land was between two and four miles away from Awala, and this was regarded as an excessive distance. In the light of the events at Mumuni, we would be wrong to regard this attitude as "traditional" and "opposed to modernisation;" it was a shrewd assessment of the drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to agree to resettlement in one of a number of villages which were to be developed according to modern principles. The government took pains, however, to work out the details of resettlement in consultation with local Orokaiva leaders. Nonetheless, arrangements such as the sending of the Jegase of Isivita to Kongohambo, in the hope that they would be helped by local Jegase clan groups, were not based on a realistic assessment of the possibilities. This agreement was easy to get as it was seen to be a necessary condition for leaving Ilimo camp. Resettlement plans were thus imperfectly adapted to the traditional relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
657 of their own. This process started almost at once and continued for more than five years. I have already stated that in Sivepa this phase--the withdrawal from Awala--took place in the years 1951-1952, while at Hohorita, Bagevaturu, Kiorota, Seve, Dapari it happened a good deal later. In this second phase, the participation of the government was much less active. In Sivepa, a patrol officer made a decision as to the site of the village and the groups to be contained in it but this was only after half the people had already lived in Pamba for some time and a quarrel with neighbouring Kongohambo had broken out, and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may be traced from a file of the Department of District Administration, Popondetta (12-3-2A). As already mentioned, the Isivita evacuees, numbering 1,869, were "re-established" in the resettlement villages of Kongohambo and Koipa. Soon disputes began to arise owing to the insufficiency of land--villages such as Sivepa could give only limited help in the way of lending gardening lands and marauding pigs were

621 another source of annoyance. Some village groups requested permission
657 to move from Koipa and this was granted. A report on the file refers
731 to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bagevaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict than it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

657 This second phase of resettlement became possible because the
731 first phase was not accompanied by any renunciation of land rights,
423 or foreclosure of the possibility of return. At no time did the
245 resettled groups give to anyone else a permission to occupy vacated lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dapari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dapari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise
[428] be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepe, most men have some land of which they are indisputably the owners, but at the same time most of them also have useholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepe showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

CHAPTER VIII: Selection of Emigrants

731 At the time of the eruption, the whole of the population fled from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

621 657 Recruitment to these villages was therefore non-selective and by government order. The amount of land available at the new location and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Kaad that they wished to form a village together, Mr. Kaad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

361 [628] When self-selection of resettlement sites occurred, the following were among the reasons for choice, as is demonstrated from evidence at Sivepe and Hoborita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hoborita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepe, we witnessed the exodus from Awala, because of land problems; the exodus from Pambe, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garombi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garombi, the links are far more complex and will be discussed under the heading of "Internal Influences."

621 The village group was the organisational unit of settlement. No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

621 657 Groups smaller than a village were rarely resettled because the government placed almost total reliance on village constables for leadership roles. Piecemeal removal would have left some people without the leadership of a village constable. While the people would probably have managed quite well without him, the government could not have controlled such a group. In any case, the close cohesion of Orokaiva village groups was almost the one element of stability that was left immediately after the eruption and evacuation. The simplest administrative policy was the one actually followed, namely to leave the village groups undivided.

The factual data on emigrant allocation have been given in previous chapters.

PART II: INTERNAL INFLUENCES

CHAPTER I: Size and Distribution of Relocated Community

Section 1: Statement of the Problem

121 This report is intended to answer one general problem: what has been the effect of collective evacuation and resettlement upon one Orokaiva community ((Sivepa) directly affected by the eruption of Mount Lamington. In order to establish this effect, we are studying Sivepa as well as a control community (Inonda) that was not evacuated and resettled. In the first part we have made one assumption which obviously can never be accepted without question and which, in fact, we shall find to be partly false: namely, that the two communities can be regarded as homogeneous. We have tended to speak of "Sivepa" and "Inonda" as though internal variability could be ignored. At the same time, I did stress at various points that I thought one of the differences between Sivepa and Inonda might be that in Sivepa acculturation had proceeded relatively homogeneously whereas in Inonda the range of variation was wider.

A hypothesis of this sort can be tested only by a systematic study of internal variation in the two communities. In this and the following chapters I shall introduce a number of classificatory principles, commonly used in social anthropology. After classifying individuals in Sivepa and Inonda by these principles, I shall be able to compare the two communities in respect of internal patterns. The first principle to be chosen is that of spatial arrangement. Closely associated with this are the principles by which the Orokaiva themselves view their communities as subdivided into bounded social groupings. My procedure will be, first, to state what are the Orokaiva principles of classification, which apply to both communities alike. Secondly, I shall set out how the two communities under consideration can be classified according to these principles and in what respects they exhibit similar or dissimilar patterns. Where patterns are dissimilar, an explanation for the differences will be attempted and I shall consider whether the post-eruption experiences may have been a factor.

Section 2: Spatial Arrangement

121 361 The Orokaiva concepts connoting residence units that may be found in a village are mainly three: da--village, banda--house and

361 bende--"side" of a village. The term da is applied to the total set
of houses built in a single jungle clearing. The layout of a da
621 usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bande, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called atara in Sivepa, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[177] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, with a slight
decline in population (to 45 in 1962 and 41 in 1967) and a decline in
628 the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
628 abandoned now. Although these two da were less than a hundred yeards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohovita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sewa people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
361 further than about 1948 when the village Pamba was built, combining an older Sive and a now defunct village Pusahambo. The census list
[162] current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Caroubi were considering moving in and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

361 Comparing Inonda and Sivepa, we notice that Inonda follows more closely the spatial arrangements that are considered ideal for modern villages, but that Inonda has remained static in size for a number of decades. Sivepa shows irregularities in spatial arrangement, but has rapidly increased in size in accordance with Australian ideas of village development. The fusion of 1948 doubled its traditional size, while a lineage and a local clan group were added since. These increments have as yet been imperfectly absorbed.

Section 3: Social Groups

621 592 616 614 Within a village, two kinds of kinship group larger than the elementary family may be distinguished, namely the javo wahai (clan) and the hae (lineage or plant emblem group). We may also distinguish two kinds of residential group, the occupants of a bande or side and of a bande or house. On the nature of the clan I shall be brief here, reserving detailed documentation for my doctoral dissertation. It seems to me mainly a political unit, held together by--in some but not all cases--belief in common descent from a single patrilineal ancestor, by the common name (javo) by which they call themselves and which they call out when slaying an enemy or a pig or in other moments of great stress, by the recognition of obligations towards and claims upon others who bear the same clan name. Rimoldi (1966: 33) is right when he calls the Orokaiva clan "only a social category."

613 The word hae means "plant emblem," but the word is also used to denote collectively all persons sharing the same plant emblem. The clan name (javo wahai) is transmitted only patrilineally, but the transmission of the hae is more complex. A person regards his hae, which may be any plant or part of a plant, or another natural substance, as a part of his own identity. He may respect it in the manner of a totem but such avoidances seem always to have been to some extent a matter of personal choice. (Williams, 1930: 127-218) The hae is used in a number of social contexts as a mark of identity. Williams seemed to believe that a hae was the distinguishing mark of a clan, but later investigators (Crocombe and Hogbin, Rimoldi) take it to be the distinguishing mark of a lineage.

It is indeed true that when a man has a certain hae his children will also use it. The children will also, on occasion, use the hae of their mother, especially when they are on the land of their maternal kinsfolk. There are other, more idiosyncratic forms of inheritance: one man uses the hae of a hereditary friend when he is on the land which passed into the possession of his family through that friend. Normally, maternal hae are not inherited further; no person uses the hae of his mother's mother, or of his father's mother. In these circumstances it is reasonable to assume that a man who has the same hae as oneself is of the same blood. This is not to be understood

613 in terms of a rigorous genealogical model, which is unfamiliar to Orokaiva, but in the sense that both are identified with the same plant or substance and thus very closely akin.

While clan affiliation is, in practise, determined by political [614] considerations, and a person may decide, upon calculations of family advantage, to assume a new clan name, the hae is utterly unpolitical and hae affiliation is a better indication of true blood relationship than membership of the same clan. In the hae, but not the clan, a kind of hierarchical classificatory principle may be found. To explain this, I should first point out that most informants I interviewed had at least four hae, two paternal and two maternal ones, and not infrequently I recorded as many as three paternal hae, and a total of five. Many people, when using a hae as a mark of identity, for instance on the road, to show they had been there, would actually use two hae plants. For instance, almost everyone in the district used the hae called sasaha (a grass), but if another hae, tandere, was added, a person finding these signs would be able to identify the owner as one of a quite limited group of people. For the purpose of this discussion, I shall use the word hae as meaning such a combination of emblems which sufficiently define identity. Such a combination of hae never defines an individual or even an extended family as usually several extended families share the same combination. But the patrilineal units thus defined are always smaller than a clan. To this extent, earlier authors are thus justified in calling them "lineages." It would be wrong to suppose, however, that the same combination of hae cannot be shared by fellow villagers belonging to different clans, for this is often found. Thus, those translating the word hae as "lineage" should be careful to avoid the implication that such "lineages" are segments of clans.

The population of Sivepe is very hard to classify into hae because I noted 42 hae in use, only 11 of which were shared by at least four adults. Nonetheless, the fact that two persons share a hae is often a valuable clue pointing to a close relationship that is of considerable social significance, but that might otherwise be [621] ignored as idiosyncratic. By far the closest bond that can exist [582] between the members of different extended families is that they share both a clan name and common hae. When such a bond exists, rules of exogamy are stringently enforced. These rules also apply, but less stringently, if two persons share the same clan name, but no hae, or if they share a hae but no clan name.

614 For our present purposes, it will be most convenient if we 621 classify Sivepe households according to the clanname of that person in the household who is what Fischer (1958) has called the "sponsor," i.e., the person by whose presence in the household the residence of the family in Sivepe can be explained. On that basis, 13 households and the bachelors' house may be classified as Jegase, eight households as Seho and six as Sorovi, as is the first half of 1967. It is desirable, however, to observe how rapidly this pattern of clan

614 affiliations has changed. In 1962, when Rimoldi did his survey of the
621 community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had [731] been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

361 One striking characteristic of the village layout of New Sivepe
614 is that all the Seho houses are grouped together on the same bende while the other bende of the main village is entirely made up of
616 Jegase houses. Sorovi, the clan which migrated to Sivepe from Garoubi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garoubi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss [582] under the term "dimetric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two [601] sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the aroha to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

361 villages (Garombi, Soroputa, Hohorita). When New Sivepa was built it
619 had become a familiar procedure and was simply copied from other villages.
616 It is an interesting adaptive institution, and the Orokaiva answer to Australian pressure towards the building of multi-clan villages.

Belshaw clearly stated the problem that was involved: "How far
[177] was the earlier hamlet system the result of tendencies towards violence and strife in the society, and to what extent will such tendencies be overcome or intensified by the new arrangements?" (1951: 246) It can now be seen that diametric structure was the Orokaiva answer to this danger of violence and strife. While affines were separated by the araha, the araha was widened so it could be used as a playing field, as happened at Sivepa but by no means in all the villages.

614 Rimoldi classified the Jegase clan into four lineages (Berekipa,
613 Seseupa, Arehu, Bebahupa) and one extinct lineage (Hambai). He further distinguished two Timunu lineages (Hajejopa, Pekuna), which should now be added to the Jegase list. Certainly, each of these six groups have common plant emblems not shared by the others; the lineages are therefore each part of a distinctive plant emblem group. Families of the same plant emblem group make no particular efforts to reside close together; the social functions of "lineage" are mutual assistance and close solidarity. The importance of the concept of "lineage" varies from clan to clan; while Jegase has this relatively long list of lineage names, Seho has no such list. Conversely, while Jegase has no common ancestor upon which all members of the clan are agreed, Seho has a human eponymous ancestor about whom a myth is told. Seho also has a totem animal (Caro = wallaby) while Jegase is actually the name of the totem animal recognised by all its members. It is a small flying insect present in great numbers around the taro leaves. It is possible, however, to classify Seho according to groups which share plant emblems and investigation shows that both clans equally are the result of fairly recent fusions; the lineages or plant emblem groups, however, are of somewhat greater antiquity. I saw evidence of the creation of new plant emblems and of the dying off of old plant emblems, so that even the plant emblems do not survive indefinitely. But Orokaiva rightly regard the plant emblem as sign of a relationship of greater antiquity, for clan allegiance can be changed in a day whereas the plant emblem group can always be traced back beyond human memory, i.e., beyond 50 years or so.

621 Inonda, in the same period, has developed in the direction of
614 a one-clan village. In 1951, out of 12 households, eight were of the Andiriha clan and three of Jego'undi. In 1966, the wife in this remaining household had died and the widower, with his four children, moved into an Andiriha household. As in Sivepa, many of the people now calling themselves Andiriha were not born with that clan name, but took it after settling in Inonda. Crocombe and Hogbin divided the Andiriha local clan group of Inonda into four "lineages," for which they quoted, in each case, a single plant emblem (1963: 17). They

621 also reported that there is one plant emblem which all Inonda members
614 of the Andiriha clan have in common, a feature not found in Sivepe.

In discussing household composition patterns, I shall simplify
the picture somewhat, as for the purpose of this study it is irrelevant
592 whether children are natural or adopted, legitimate or not, children
of both parents or one and whether clan membership is "primary" or
"permissive." All these questions would be highly relevant, of course,
if we were dealing with a village such as Hohorita, where many people
died during the eruption so that many remarriages and adoptions can
[114] be traced to that cause. One of the strange gaps in Williams'
ethnography is that he omits any reference as to household composition;
in his notebooks, he records household composition for two villages,
Burugata and Wasida, showing that in every case in those villages, a
household was made up by a husband, wife and children. In one case of
a polygamous family, the man had two houses, one for the family of one
of his wives and one for the families of the other two.

Informants told me of one rule regarding household composition
592 which is likely to be quite ancient. This is that a man and his wife
606 may not quarrel in the presence of the husband's father (and, needless
to say, in the presence of the wife's father). For this reason, the
people of Sivepe certainly do n.t like three-generation households when
the middle generation is represented by a married couple. It is normal
for a married woman to stay with her parents or her husband's parents
while her own husband is *away* working for wages--as is frequent among
younger couples. In that case, the household will have three generations,
but the middle generation is represented by a woman only, with the
husband only an infrequent guest. When I came to Sivepe, and the
village was still only half-built, I found three households in which
the middle generation was represented by a husband and wife plus,
sometimes, a few others. In all these three cases, a change had
occurred before I left: the husband and wife had built themselves one
house, leaving another for the old people and perhaps some other adults,
not including couples. This rule seems to be regarded as less important
in Inonda. (See Table 15.)A

592 My own impression is that the normal household is composed of
a nuclear family, as appears from the Sivepe (but not the Inonda)
[594] statistics. Widowers and sometimes also widows live in houses by
themselves, even if they have no young children living with them and
[589] do not like staying with their children after they are married. A
widower usually has his meals cooked for him by a daughter or other
close relative who brings the food to this house. Though occasionally,
two married brothers (or other close relatives) live in the same
house, this is likely to be a temporary arrangement. I do not think
that useful sociological conclusions can be drawn from comparison
between Inonda and Sivepe in respect of household compositions, as
there are in Inonda only two households of the type I have known to be
highly untypical and these may well be accounted for by idiosyncratic
circumstances.

A [See Cat. 116, p. 220--Analyst]

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepa: out of 28 male adults actually resident in Sivepa, 26 were born within two miles of the present village site; the other two were born in Soroputa, which is hardly more than four miles away. Both the Soroputa men had married Sivepa women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepa females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 582 The traditional pattern was for a man to marry a woman from a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepa. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 169 In Inonda, two of the nine adult male inhabitants were born outside the district: one came from Arafa, in the Managalasi district and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 628 [582] Of the ten adult women living at Inonda, four came from the Sangara tribe, one from Kendata in the Sasembata district and the others from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepa. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

621 social distance also. Relations between Inonda and Ureo or Hohota, 628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity 563 of Inonda, we find two historical causes in this sample: a war and 621 a disaster. The link with Kendata came through the Managalasi man; 167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even only one generation beyond the present residents, we find much the [727] same pattern as still survives in Inonda. The capturing of young orphans was a commonplace event among the Orokaiva, as were also [423] migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and [723] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple 167 loyalties. As these loyalties are kept alive over the generations 563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

already pointed out the usefulness to a village of such men of multiple loyalties because they were the natural ambassadors if something needed to be negotiated between the two groups.

It will be seen that the effect of the eruption on the homogeneity of Sivepe has been minimal: one stranger came into the community through marriage. The ideology engendered by the resettlement villages did lead to some accretions in Sivepe population over the last decade before my visit, but these accretions (from Binduta and Garombi) would hardly make the population heterogeneous. These migrations were over a very short distance, short enough to allow migrants to maintain gardens on their own land, and were facilitated by existing agnatic and cognatic links.

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garambi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation into Sivepe and Binduta. This project was favoured by Sivepe which was keen to enlarge its size. Sivepe could see that under the modern
166 dispensation, the greatest favours always went to the largest villages.
167 The large villages had shops, water supplies, a club house; the coffee truck stopped there, and so on. There was also a prize for the most improved village; here, too, size was thought an asset. In council elections and many other contemporary situations, size meant power. Sivepe was therefore eager to absorb these families, hoping that more would follow. During the year of my visit, there were several meetings about this with Garambi people; rumours of further migration were hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period under consideration. There was the same rise in the number of children;
[464] there was little loss through labour migration (only one man in 1962; as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
[621] shifted to neighbouring Ureo and Hohota. Perhaps this decline may be explained by the strong leadership exercised by one family--socially, economically and ritually--so that anyone who fell out with that family more or less had to leave. In contrast, Sivepe has several strong personalities who had to make compromises with one another. Sivepe's post-eruption development was shaped not by one dominant figure but by several, each making a specific kind of contribution. Certainly, there was factionism, but there was also balance between the rivals. In the next two chapters, I shall deal with these two kinds of internal pressure: the character of the key personalities and of their rivalry.

CHAPTER VIII: Factionalism

121 In the preceding chapters I have invoked a number of principles
621 of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), acculturational categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 In Sivepo we found political membership groups (clans) which
665 showed marked differences in certain acculturational indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepo, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepo, though perhaps it was easier to challenge in Inonda, where there is a "big man" as
665 leader. Another classification, namely between male and female,
562 should also perhaps be briefly considered as, under the impact of the women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

867 Children were trained by their parents in the prevalent system
869 of custom and belief, as modified by recent changes; they maintained
177 their traditional regard for their elders, not regarding their school knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly
602 expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

CHAPTER X: Esprit de Corps

621 731 The problem of developing group consciousness in a new village, created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepe in 1966, though on a much smaller scale. Sivepe, as I mentioned before, consisted of a core of people who lived in Pambe before the eruption and two groups who arrived since, one from Binduta in 1955 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial [361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 [431] In the daily presentations of food between residences, these families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange [578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 684 On the other hand, the hazards were obvious when one looked at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

621 Naturally he was angry that his wife had been molested; his younger
681 brother who was rather fiery and quick to fight, was angrier still.
They both found themselves isolated as the kinsmen of the assaulter
took the opportunity of expressing their heart-felt views about the
two brothers, especially the pugnacious one who had successfully raped
a young Soho woman earlier that year. Both brothers said they would
go back to Binduta and the younger man actually did so. This shows that
their position in Sivepe was still somewhat unstable.

659 One of the objectives Sivepe had during the year 1966-7 was
621 to win a prize for the most improved village. This prize was awarded
361 by a committee of councillors and paid out of government funds. The
eagerness to align all the houses in two rows was partly due to this
desire to win the prize, though this was not the only motive. In
these circumstances, it was certainly evidence of esprit de corps to
fit in with the village plan and the objective of winning the prize;
it was also evidence of a lack of esprit de corps to ignore the village
plan altogether and build houses of inferior design in places where
they were extremely conspicuous. Yet this is what the immigrants from
Carombi and Binduta did. Lawrence, and the others who were keen about
village improvement, accepted this situation with much tolerance,
though Lawrence did go up to the Carombi houses one morning to talk it
over. No doubt he received assurances that something would be done;
the discussion was amicable enough. Yet this instance shows that the
amalgamating of villages poses organisational problems which place a
burden upon everybody: upon the old residents who must be tactful
and upon the new arrivals who will long continue to feel insecure.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepa and Hohorita

My subject of study obliged me, both in Sivepa and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepa, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pajetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[9] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. It was the people who chose the site for the village; the Bishop hoped that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepa) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepa, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepa. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
161 350 live in Hohorita and the rest in the three other villages. The total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepa, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[A] developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission

A [See Cat. 116, p. End Map 13--Analyst]

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepa: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Soubou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they [769] who filled the gap between the rows. The councillor had long been at [775] pains to close down the small villages of Soubou and Kakita and Soubou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Soubou and Kakita still had a normal complement of pigs. Coffee was [231] a somewhat bigger enterprise in Hohorita than at Sivepa. The trees [245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate. [166] Compared to Sivepa, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepa, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepa ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

Section 3: Social Environment

619 In discussing the Wasata "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [199] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hohorita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern [659] District immediately after the war, patrols were active in the Sangara district to amalgamate villages. A number of the people now living in Hohorita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hohorita is more diverse. I was at first told that it was composed of households of four clans (Horsopa, Oripa, Bosupa and Sahopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Soubou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Soubou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hohorita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since 628 the eruption form a rather tight cluster, quite different from the intersecting circle pattern I described for the Sasembata district. When a person in Soubou died, the whole of Hohorita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hohorita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hohorita while Soubou, with the assistance of Kakita, entertained the Uhuru'undi

521 of them made frequent visits to Popondetta and there met urbanised Sangara. A group used to meet in the hotel for what were often political discussions arising out of current events and rumours. This emphasis on the political and ideological reminded me of what I had seen among the Maori, the Indonesians and what is reflected in recent African studies: the kinship universe is crosscut by other ideas presupposing a political centre, centralised power, fundamental social and economic changes. The presence of Papuan public servants made [474] much difference here. For instance, nobody in Sivepa, discussing savings accounts, would have thought of telling me that there are 54 cooperative societies in the district only four of which are Savings and Loan Societies. This group knew the pulse of the Northern District in concrete factual terms while Sivepa relied on disconnected phenomena that happened to drift into their ken and from which their suspicions and hopes shaped an image sustained by the stories of their councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hoborita is a more densely
621 concentrated settlement, with 348 inhabitants in 41 houses. When I
[161] was there, there were still two clearly separated aruha; the dominant clans of the front village section were Horopa and Oripa; in the back, Beoupa and Sehopa. But within each section, there was no striking separation of the clans into "sides" as in villages in the Sasembata district. House distances were as at Sivepa.

614 In contrast to Sivepa, there is no tendency for clan groups to
621 fuse, 12 independent names being given to me. This number can be somewhat reduced if we ignore those clan names represented by a single family where the wife belongs to one of the major Hoborita clans--the wife is then the "sponsor," in Fischer's sense, of the household. Thus, two of the clan names given to me belonged to immigrants from the Sasembata district who had married into Sangara. For all practical purposes their allegiance lay with the clan of their wives. The other clan names were all Sangara, representing survivors from numerous pre-eruption villages.

592 In household composition, the smaller settlements of Soubou and Kakita rather resembled Sivepa, but in Hoborita three-generation households were more common and bachelor's houses were not found.
[597] Furthermore, many children were left parentless through the eruption and these were adopted by Hoborita households, especially by childless ones. As a result, childless households in Hoborita are far rarer than in Sivepa. A considerable number of marriages and remarriages
[423] occurred immediately after the eruption. The sharp drop in population, furthermore, left Sangara with plenty of land for the survivors, so that 25-35 year age group is far better represented in Horotia than in Sivepa.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepa, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepa (about $100 per annum).

891 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add [illegible] to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent kambo for the kere

A (See Cat. 116, p. 228--Analyst)

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepa are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepa were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepa. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepa has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepa.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepa, the fusion of Jegase and Timumu had established a fairly equal balance with Saho; as both clan groups were about equal in strength if the greater resources of Saho are taken into account. In Hohorita, however, the supremacy of Horoopa (and Sahopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overlapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

Map III

Source: Rinaldi 1966: 82

22: Schwimmer E-4,5 (1966-1967) 1969 QQ23 Orokaiva QQ23 Mount Lamington

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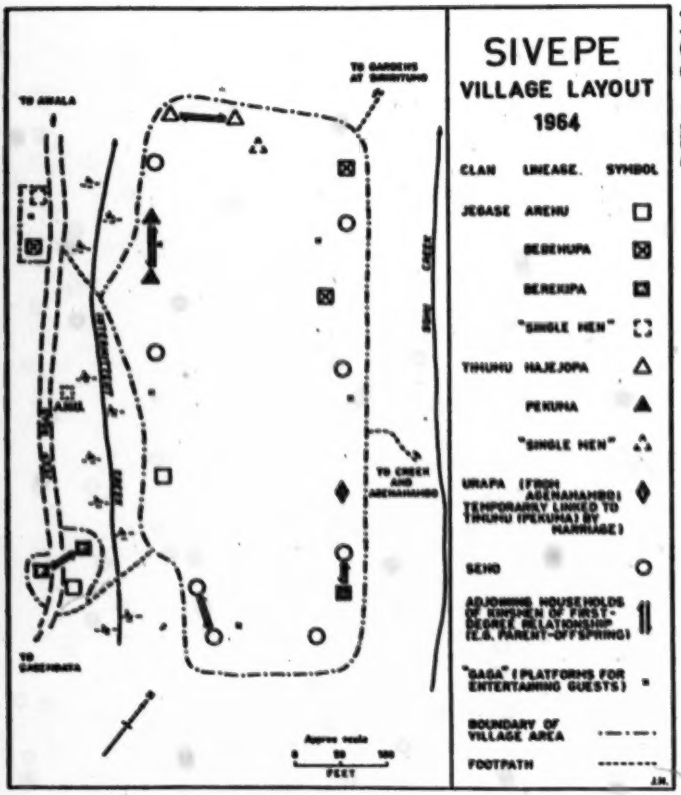
Map V



361
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Source: Waddell & Krinks 1968: 38

[End Map 5]

Map VI
Plan of New Sivepa

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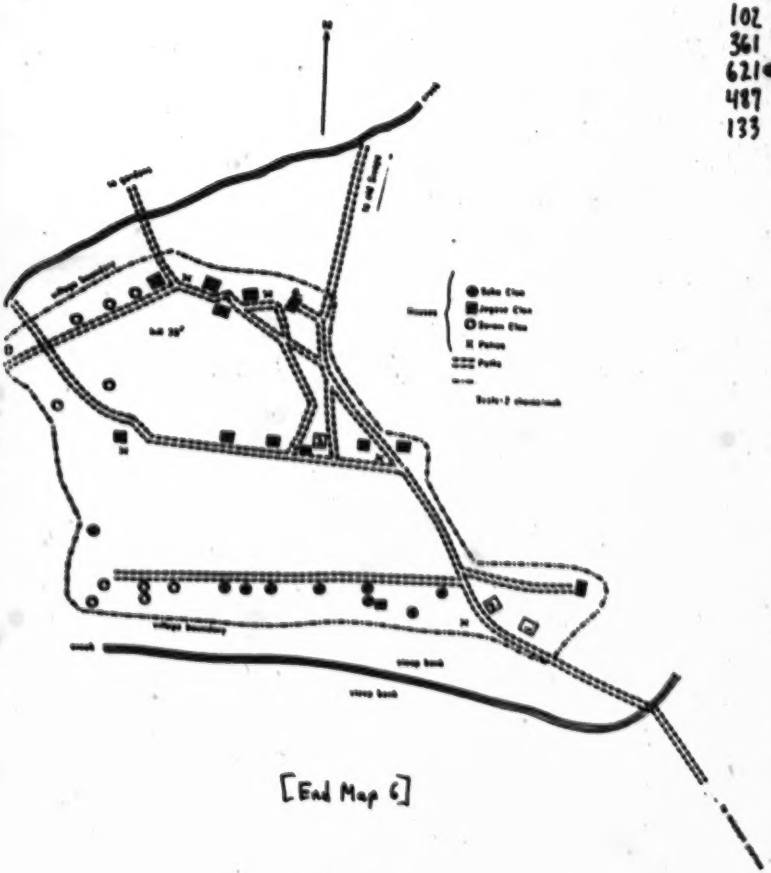

[End Map 6]

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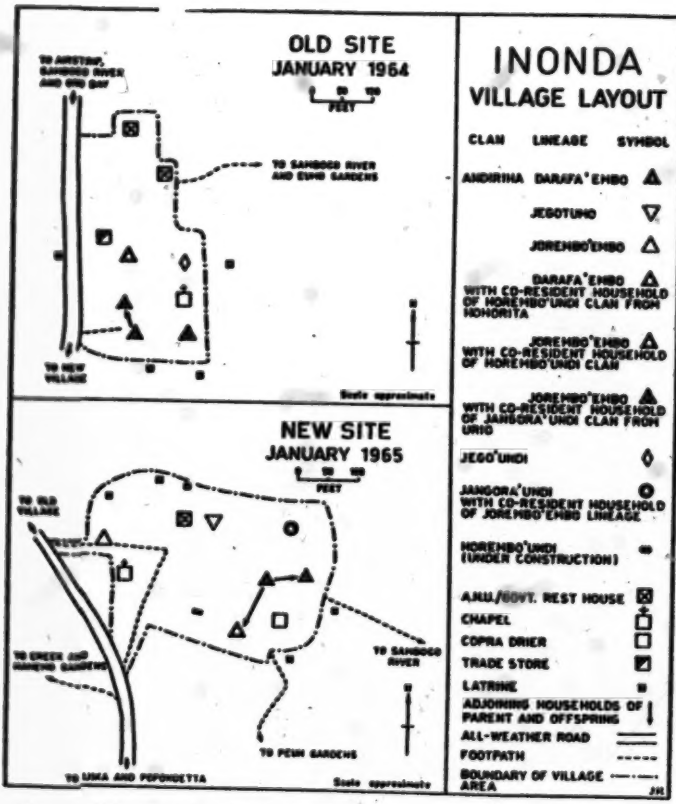
Maps VII and VIII



Source: Waddell & Krinks 1968: 54

[End Map 7]

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organisation, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The generally monogamous family units are under the "immediate authority of the father," while the affairs of the local living units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually hostile and resistant to whites. Women were often seen accompanying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes as the result of a "quarrel and the fear of retaliatory magic," but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

Williams and others judge that with the modern pacification, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influence. Over against this greater dispersal, the people have

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

If the Orokaiva case, of which a description now follows, seems more complex than the preceding ones, this may be attributed, at least to some extent, to my method of presentation. While most Oceanic sources are too brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of affines. The Orokaiva marriage system, reported elsewhere (Schwimmer, 1970a), seems more highly structured. These factors are probably related to higher population density, larger social networks, higher soil fertility, and more pervasive warfare.

The Orokaiva (population 25,000) live on the fertile volcanic loam of the Mount Lamington foothills. Their main crop of taro once supported villages of six to twelve families, although now, the villages are often larger mainly because of pressure from the Australian administration. Williams (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

5 Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otaro* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

6 Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 less diffuse term than *apa/eambo*; *jao* (Sangara and Sasembata) designating a *namei* type of relationship between women, used commonly between unrelated married women living in the same village.

Friends as a Distinctive Set

601 The Orokaiva employ certain collective terms to designate the *philia* universe
572 or distinctive parts of it. Thus, the term *mamahane* (father's people) designates the agnatic group, *epehane* (mother's brother's people) the maternal relatives, *aerihane* (wife's people) the affines, and *japehane* (literally, grandmother's people) the father's mother's group. There is, in addition, a term *nameikamei* which comprises the total *philia* universe including an undefined residue of non-kin as well as all the groups listed above. Although Sasembata do not use the term *namei* (friend), *nameikamei* is heard regularly. In neither locality was a collective term found which exclusively comprised the non-kin in the *philia* universe.

The term *nameikamei* certainly covered, apart from the kinsmen, the (Sangara) *namei* category and the *jao*, terms which are both regularly inherited bilaterally. I cannot say for certain whether the *otavo* and (fictive) *simbo* categories would be included in the *nameikamei* group. These terms may be employed in fairly casual relationships, but in time, persons calling one another *otavo* may decide to use a sibling term, thus making the relationship hereditary.

Statistically, non-kin make up only a small part of the *philia* universe. A man might be able to list several dozen *nameikamei* in villages more than three miles from his home, and non-kin would make up only 20 to 25 percent of such a list. (It should be noted that my statistics are somewhat cursory, as I could never be sure that any informant's list was complete.) Visits from non-kin tend to be made at greater intervals than visits from kin and they last a shorter time. One could safely say that non-kin are, on the whole, on the periphery of the *philia* network, as is the case among the Tangu.

An interesting difference between the two systems is that the hereditary relationship which is between fictive brothers-in-law among the Tangu, is between brothers (*apa/eambo*) among the (Sasembata) Orokaiva. It would be considered not only chilly but frightening for an Orokaiva to call his guest friend *dambo* – affine avoidance being stronger than among the Tangu.

Orokaiva Cooperative Alliances and Reciprocating Partnerships

571 Cooperative alliances tend to vary in size according to the purpose of the
●[621] alliance. In pre-contact times, the village was a cooperative alliance in war-
[614] fare and in large feasts, comprising between six to twelve households. For bridewealth and death payments, the alliance comprises the plant emblem group (Williams, 1925; 1930; Schwimmer, 1970a), the nucleus of which approximates a four-generation lineage, although it also has other members.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 bond is respected by both sides and utilized for purposes of mediation. The
628 friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted
621 to affinal bonds or lead to co-residence, in which case an entirely new pat-
572 tern arises. It is possible for migrants into a village to have no bonds other
[166] than those of hereditary friendship with their chosen hosts. But once co-residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

572 *Apa/eambo* and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds -- for two generations senior to ego -- but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

572 (a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs
931 in some ritual features from the hospitality shown to affines and to con-
574 sanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

either by the housewife who has cooked it or by one of her children. The quantity is usually about two kilograms, which constitutes a very hearty meal for one person. Thus taro gifts become, for the anthropologist, an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges invariably follow. The same cannot be said for any other object of mediation, not even pig meat (which is exchanged only in specific circumstances) or coconut and areca (which may be given to very casual acquaintances). The exchange network of cooked taro therefore coincides with the network of intimate association.

I have made a somewhat detailed, statistically oriented study of taro-exchange networks which, for lack of time, cannot be reported here. During twenty-eight days, between 31 January and 10 March 1967, I recorded taro gifts made by all households of Sivepe village. The number of gifts made and received averaged 2.5 daily per household, ranging from a minimum average of 1.3 to a maximum average of 4.1. At the same time notes were kept of social relations between the households involved: work relations, common journeys, different types of visits between households, conversational groups in various parts of the village. The social interaction records were compared with statistics showing the households to which each household had given taro during the period, and the frequency of those gifts. There was a close correspondence between frequency of taro gifts and intimacy of social relations. There were also a set of types of formal occasions when such gifts were thought especially appropriate, e.g., when the recipient household was entertaining outsiders, had a new baby, a death, had performed some specific service; or if the recipient was old, incapacitated, ill. Nobody made taro gifts to everyone in the village: in the twenty-eight days for which I kept tally, the number of such partnerships varied from three to fourteen out of twenty-two households surveyed, with an average of 8.5.

The taro-exchange partners were always the persons on whom one was most dependent in sentiment, in economic tasks, in political support. They would tend to take one's side in intravillage disputes. Taro gifts thus were a ritual statement in

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

which one household would express its desire for close association with another. I inquired to what extent the gifts were balanced. I found, as Sahlins already suggested in 1965, that little importance is attached to precise balance in food gifts. In more than half the households the total imbalance exceeded the proportion 60:40. On the other hand, I also found that extreme imbalance usually has a special explanation, often old age, or special burdens which might be only temporary. Informants, when asked, deny there is any obligation to make return gifts. Yet the statistics show a strong tendency toward the sending of taro gifts on the same day or the day after one has received them. The recipient will explain that he is under no obligation but likes to reciprocate.

Certainly this attitude is in accordance with the explanation I have given of this custom. The return gift should not be considered principally as an obligation but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of the gifts is closely connected with the question of how intimate each side wants the association to be. An increase in the frequency of the gifts means a desire for a more intimate association. If the recipient wishes to keep the association within certain limits, he may be slow in making a return gift. Unbalanced exchange occurred, for instance, with migrants from a neighboring village (Garombi) who gave more than they received and seemed to be constantly trying to build up new alliances. They were welcomed more warmly by some old residents than by others. If recipients, though fully capable of making equally frequent return gifts, reciprocate halfheartedly, the donor household tends to reduce the gifts to the level acceptable to its partner.

There are, therefore, limits which households set for the extensiveness of their taro-exchange network. These limits are determined less by economic considerations than by sociopolitical ones. There is a limit to the number of intimate social relationships that any individual can maintain. A choice exists, within any culture, between allocating relatively little time to a relatively large number of associates or maintaining a small number of privileged associates with whom contact is very fre-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

5: Schwimmer E-4,5 (1966-1967) 1973
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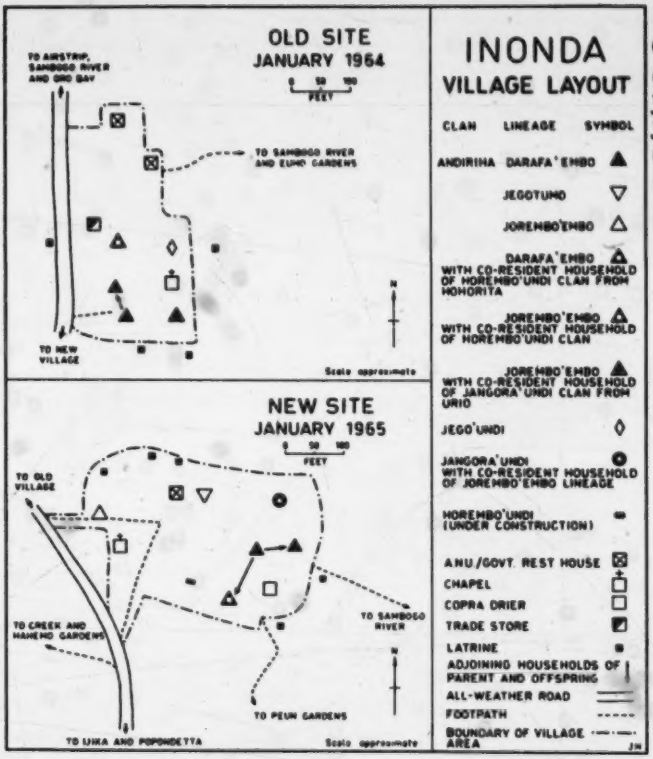

Fig. 4. Inonda village layout.

The leader, a government driver, earned about 65 per cent of the total cash income of the whole village, not only in wages but also through various enterprises on the side. He was the lay preacher as well. The only limit to his influence was the unwillingness of the pagan faction to become involved in 'modern' activities of which he was the champion. 105 622 177

Ecologically, Inonda is characteristic of the alluvial plains region to the east of the mountain. It lies between 200 and 300 feet above sea level, and has a comparatively low rain-fall and long dry periods. Its population density is low: 42 people on a village domain of 2850 acres (less than 10 per square mile). The best Inonda land is 580 acres of coarse-textured recent riverine deposits, covered with forest or regrowth and lying beside the Sambogo and Girua rivers. 133 132 161 162 134 137

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

613 the father's father of the oldest members of the dispersed clan
614 branch but the specific kinship relationships between these ancestors are forgotten.

The Jegase people do not name a putative founder of the dispersed clan branch. Nor do they assume that the eponymous ancestors of its subgroups were brothers. The single site of settlement of the ancestors of Jegase men in this neighbourhood is their only recognized evidence of common origin. But this focus of their common identity still offsets the more recent attenuation of intra-group relationships owing to dispersal. The lineages emerge as contrasted co-ordinate group-segments because their histories have diverged since they jointly occupied one territorial centre. There is no fiction of opposition between segments in genealogical terms.

Informants sometimes indicated a sense in which certain lineages are considered closer to each other than to the rest of the dispersed clan branch. This type of alignment seemed to be associated with a joint historical identification of these lineages with a part of their group's territory. It is possible that this in turn is due to a closer patrilineal connection now forgotten, but the people do not venture on this type of explanation.

(iii) Authority and land control in the descent group. Anthropologists have remarked on the indeterminate system of leadership in Orokaiva villages and descent groups and the lack of formal sanctions for authority, and government officials have found that continued lack of emerging leaders impedes the planning [622] of local government and village reforms. Williams discusses the 'absence of central authority' (1930:325) and the 'entire lack of any ceremony of chieftainship' (W.23): he points out (1930:104) that the titles for 'big men' (embo pani, embo dombo) imply only that they are 'men of importance who cannot claim to be leaders'.

[888] There was however, a recognized ascendancy of old men. The 'leader and ruler of any clan' was said to be the eldest of its men provided he was equal to the minimal requirements of the position and 'only in the larger clans, where there are well-defined family groups, does the question of hereditary succession appear, and then it is a somewhat faint appearance' (1928:125) - but only if the large clans are localized, for he says that where 'the clan is scattered, there is no single leadership' (1925:407). [622] On the other hand Reay (1953:115) says that 'the embo kiti, whom F.E. Williams called a "clan headman", but who is really more of a village headman whose position is hereditary within a certain lineage of the clan, has a limited authority which is backed by no sanctions' (embo kiti: first man).

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations [622] of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[1] Cf. kiti ligari (p.30). [515]

[2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
clan of his or her father. All members of a clan claim, but cannot
[611] necessarily trace, common descent from a usually eponymous ancestor.
Each clan is subdivided into named sub-groups or lineages which
[613] trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[592] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

592 The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual [249] holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

464 Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). 871 The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

622 Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] [241] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

433 Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[1] For the purposes of this survey, a household is a group of people [594] gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[128] [2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4 [4] See Rimoldi 1966:55-6.

[554] [5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A, [See Category 871, p. 307--Analyst]

512 more time than others, during the survey at least, on house building. During period I, while still living in the old village, he erected a temporary house on the new site. During period II he lived in this structure while building his permanent house, and this was completed during period III. As was pointed out above,[1] the amount of time spent in building during 1964 was much higher than in most years.

Only 17 per cent of his time is spent in activities related to the external agencies and the monetary sector. Of the comparatively small amount of time devoted to activities not directly productive, Paulus spent most on minor activities and social obligations. As with the leading man, little time is spent on visiting.

Mamoko. A widower aged about 56, Mamoko was captured in an inter-tribal raid on the Managalase people in the Hydrographers Range and adopted by his captor from Inonda. He married an Inonda woman and had several children. His two surviving sons are still resident and several daughters are married to men in other villages. He received no education but spent six years as a plantation labourer. Unlike many of his generation he was baptised as a Christian and regularly attends the village services. It is said that Mamoko would be the 'embo dombo' (big man) of the village if his wife were alive, since he knows most about the land and social relationships (which are of primary importance when organising feasts). However, as he has no wife to assist him and to lead the other women, he is unable to fulfil the role effectively. Instead, he gives advice to Lawrence, the accepted leader. In 1965, he and two other men, both rather younger than himself, made small coffee plantations on the north side of the Girua River. Some years later he gave his trees to his eldest son and staked out a harvested food garden near the present village site preparatory to planting cocoa, but he did not complete the scheme. During the survey, he spent a little time assisting the other men build the copra-drier and a little in collecting and splitting coconuts to make copra. His only cash income during the survey was from gifts, but immediately prior to the survey he had worked for some weeks on road-building.

The widower has the shortest working week of all the villagers, but 88 per cent of his time is devoted to directly productive activities. Over half is spent on the clearing, fencing and cultivation of subsistence gardens. Taro receives most attention, followed by yams,

[1] See p.138.

613 divided into sub-lineages.

614 There is no unitary leadership of a dispersed clan. The highest level of unitary leadership is usually that of the sub-clan or of linked co-resident sub-clans (as at Inonda), though we have heard of instances elsewhere in the Orokaiva area of leaders of senior sub-clans having some authority in respect of junior (i.e. more recently formed) branches of the same clan which are located in separate villages in the vicinity. The [622] leader of a sub-clan is referred to as the embo kiti or embo kiti jigari (first-born man or first-born leader), and of a village as the embo dombo (big man). The embo dombo of a village seems always to be embo kiti of his own sub-clan within it. These are descriptions of particular statuses and are not formal rank titles.

614 622 Leadership of the Andiriha sub-clan was shared between three individuals in a delicate balance. They were also in practice the leaders of the village as a whole for the Jego'undi are in a subordinate position. The first of the leaders was the eldest surviving son (by adoption) of the previous sub-clan leader. He does not now live in the village, but about two miles away on the Girua resettlement scheme. He pays frequent visits to the village and exercises considerable influence, particularly in land matters. He speaks of himself as the embo dombo of the village and embo kiti of his sub-clan. The second was a man descended from the Hohota branch of the Andiriha clan (which claims exclusive rights to a tract of land there, whereas the Inonda section of the clan does not claim exclusive rights to its land). He was a forthright, assertive man and was recognized as sub-clan leader for some years during the absence of the first man mentioned. He lived in the village and still claimed to be embo dombo and embo kiti (until his death during our stay) on the ground that the former leader had "left the village". The third leading citizen is the eldest surviving child of the first-born son of a former sub-clan leader (now deceased). He is at present the elected councillor for Inonda and neighbouring villages in the Higaturu Local Government Council. Being a young man he does not claim to be leader of the sub-clan but generally defers to his elders, though he often acts as their spokesman.

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance
[556] in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

Jagase, thus making Sivepe basically into a two-clan village, into which some recent Garoubi immigrants remain to be integrated. Inonda, in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (ohose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert, dancing expert and some others. One of these experts, the feasting expert, is in fact the man of highest status in the clan or village and may be called its leader. A clan leader may take responsibility for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari ambo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hoborita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

Australian domination added at once the role of village constable to this somewhat acephalous pattern. One gathers from Monckton that the village constable was chosen on the assumption that he had been the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepa; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
619 which is the dominant clan of Sivepa. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies [384] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. [751] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepa to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepa men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepa informants told me that the village constable made little difference to the way of life of the people and this must, I [627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the
731 village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepa, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepa was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepa, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepa. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepa. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

622 growing in the village and these were consumed in a big feast 18 months or so after his death. There was much discussion, during these 18 months, as to who should follow Amos as leader; when I left, no decision had been made. He had himself designated the son of his elder brother who died during the eruption, but this man is a government driver, living in Popondetta. The people would prefer a local man for leader, but there is no suitable resident member of Amos' own hag. and in practise it seems that the question of leadership was debated not so much by the people at large but by the men of Amos' hag and Amos' wife's hag--the latter also coming from a prominent Horeopa family. Some leadership roles were meanwhile being carried on by an adoptive half-brother of Amos' wife. This man, a mission teacher who was head of the Hohorita school, and one of my best informants (Harold Heru), was in charge of the preparations for the coconut feast commemorating Amos' death, but he deferred to Amos' brother's son (Michael) on the day of the feast itself, when Michael came over from Popondetta.

622 While these problems over ceremonial leadership were being
623 pondered, it was obvious that for most ordinary day-to-day decisions, the most powerful man in the village was the councillor (Brian Aruha). Brian, though without any formal schooling, was employed by the government as an interpreter in the fifties. His employers formed a high opinion of him and it was probably not without their encouragement that he stood as a candidate for the Higaturu Council and was subsequently chosen by councillors as their chairman. In the view of senior government officials in Popondetta, Brian's knowledge of the history, activities and purposes of the council was unequalled in the district. He did not earn this reputation by craven conformity; indeed, I observed him at council meetings as a doughty opponent of the views of the government's advisory officer, even though he sometimes found himself arguing a strong case in a minority of one, for the other councillors tended to be rather deferential to the advisory officer.

622 Brian's power in Hohorita was much less absolute than Stephen's
554 at Inonda because Hohorita has a far greater number of leading figures. On the other hand, in the judging of disputes and in arranging the land conversion scheme described in earlier chapters, he wielded more power than any single person in Sivepa. In contrast with the Inonda and Sivepa leaders, Brian did not belong to the leading clan (Horeopa) nor to either of the other three well-represented clan groups. His real home was Sombou; at Amos' coconut feast he appeared as the leader of the dominant Sombou clan and in that capacity received gifts in recognition of services which this village had rendered after Amos' death--the traditional services expected from a neighbouring, closely-related village. Thus the power he wielded at Hohorita had the effect of spreading power beyond the dominant Horeopa clan, thus helping in the integration of the different clan groups.

622 Brian was assisted by a "committee" man who also came from one
624 of the smaller clan groups and who had at one time been a medical

622 624 orderly. This man, like the "committee" in Sivepa, was responsible for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 474 454 952 Two other formal organisations in Hohorita pursued ends likewise related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck. By the time I left, this committee had accumulated almost $1,000, and the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 452 The composition of this committee was interesting: it did not include the councillor, but consisted of the head teacher at Hohorita, and a priest and a public servant both resident in Popondetta. All three belonged to the Hvreopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmowers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The generally monogamous family units are under the "immediate authority of the father," while the affairs of the local living units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually hostile and resistant to whites. Women were often seen accompanying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes as the result of a "quarrel and the fear of retaliatory magic," but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

Williams and others judge that with the modern pacification, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influence. Over against this greater dispersal, the people have

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a rationale, satisfying to themselves, for the behaviour patterns they are now adopting in response to the impact of the white man's power? This is the question to be explored in the next section of this chapter. I shall put foward the suggestion that the Orokaiva actually developed an interesting and satisfactory explanation of recent cultural changes, using the concept of a new *deme* who set new exchange cycles into motion. In demonstrating this point, I shall quote at length from informants' statements so as to indicate clearly the nature of the primary evidence on which I have drawn.

2. *A New Starting Mechanism*

I shall begin by quoting a tape-recorded speech made by a member of the Higaturu local government council at a meeting held at Torogota village, Sasembata valley.[2] The reader may well doubt the sincerity of this speech, as I did myself when I first heard it. I discovered, however, that councillors frequently address meetings in similar terms. Trusted Sivepe informants told me that the recorded speech is typical of what that councillor usually said. It was elicited when I asked the men of Torogota for tales about olden times (*iji matu*).

The councillor started with a sketch of the wars of his forebears. His 'grandfather' Bohuka, with a group of migrants from Waseta, and other villages, drove off the inhabitants of a village called Hingo Kakasita and settled on the land of that village:

> Today his grandchildren call this our land, but they are weak grandchildren of strong ancestors. . . . All this is communal land (*company enda*) conquered by our forebears. As a new day has now arrived, I tell you to be united. Therefore you must follow my instructions. The councillor for Sasembata is speaking. Everybody who speaks north, east, south or west should now stop.
>
> Now I am speaking about this old village here. I am Councillor Ase. I am saying: follow this word and hear it. I shall therefore tell you how they (i.e. the Europeans, the *taupa*) talk: 'Those men were all felling the tree. The man whose name I mentioned was a fighting man. His enemies killed the wayfarer like a dog. The Waseta people beat and chased them, came here and stayed.'
>
> I am councillor Ase. Here we live, people, in this very old village. We are the descendants of fighting ancestors, therefore we live here. We say that we live in the land where the *seha* grows (a useless bush tree) or where the *inota* grows (a useless cane looking like a sugar cane) or on *gindiri* (i.e. sandy, infertile) soil. We stay in an old village, but people are saying we are living on communal land; we are staying on a place we took during a raid. They are saying: 'The Waseta men had weak descendants. They stayed here because they were defeated.'

A little later during the same recording session, Councillor Ase spoke again. This time he started with a description of various magical powers traditionally possessed by the Orokaiva. He continued:

> In those days people did these things. They did not take jobs for only Jesus Christ gave jobs that people could take. The village constable bound people (with handcuffs) and took them if he believed they were telling lies. He took them to Kokoda and Court was held; then they would start work . . .

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .

In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *bo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 657 177 working out a development policy, but rather of obeying a sacred formula that came to the Australian authorities from a *dema*-like source and was then passed on as a gift to the Orokaiva.

829 [123] Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus Christ, or are there other *dema* figures as well to whom these gifts are ascribed? Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 466 829 437 177 An employer of Papuan labour is interested chiefly in obtaining the compliance of his workers by the payment of money. Usually he is not at all interested in social exchange, but in a contract whereby he acquires the total work output of the worker for the period he is on the job. The Orokaiva, however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 437 177 The basic significance of the *baksheesh* has already been pointed out by Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de l'individualité du donateur.*' It rests on a notion that both worker and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

657 constables, instructed them to report any trouble, visited the villages, looked for
177 evidence of non-compliance with instructions, punished delinquents, left further
625 instructions with the village constable and threatened further punishment. The trouble with this procedure was that the changes it could produce were of rather limited scope. All the Orokaiva needed to do to keep the patrol officer satisfied was to attend to things that could be seen on a visit (the state of the roads, houses, latrines, the grass in the villages, the quota of obligatory rubber trees, etc.) and to avoid the kind of trouble the village constable could not help reporting (murders, serious dissensions).

657 Social and economic development, however, depends on the communication
177 of ideas, on encouraging regular schooling, use of medical facilities, cash-
623 cropping, the development of markets, participation in local government, preparing the young for careers outside the district, encouraging capital formation and entrepreneurship, improvement of agricultural techniques, land titles, and so on. In the 1950s, when the government became deeply interested in these objectives, it created local government councils, abolished village constables, and rather forcefully changed its emphasis from the enforcement of compliance to the inducement of collaboration. Some of the Australian officers told me they found this shift rather frightening: if there was no jail for non-compliance, how could one be sure that the Orokaiva would take any notice? On the other hand, Orokaiva conservatives found the shift in policy frightening for the opposite reason: as they told me, the village constables left Orokaiva social life virtually intact, except that occasionally someone would be sent to jail for a while – a mere ripple on the surface of community affairs. But since the government councils were established, and the councillors came round regularly making long speeches, and since the new institutions listed above had actually been demonstrated to be useful, the foundations of the old way of life were beginning to be undermined.

With the help of the councillors, the government's ideas were certainly being communicated, but hardly ever by the government's own officers.[4] The only white officers who regularly visit villagers are young, inexperienced patrol officers, dependent on interpreters. Speech-making is only a minor part of their role and not the most successful. All the councillors I have heard, however, are master propagandists. As the government's aim is clearly the communication of ideas, it would be hard to find a more efficient method than the present one, where the government communicates to the councillors and leaves the latter to do the rest.

An interesting and somewhat unusual exchange cycle results from these transactions. The exchange partners are the government and groups of Orokaiva villagers. The objects of exchange are information (emanating from the government) and respectful attention (on the part of the villagers). I use this term 'respectful attention' as the nearest translation of Orokaiva *ingari* which means 'to hear', 'to understand', 'to follow advice' – and comes closer than any other word in the Orokaiva vocabulary to the notion of obedience and compliance. The exchange cycle may be expressed in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 7

657 177 623

The elements of mediation are entirely indispensable in this relationship. Unless there is development activity, the government will feel that the relationship has broken down. Unless the councillors intervene, the government's information cannot be communicated.

Both the villagers and the government find this exchange cycle highly precarious. It is precarious for the villagers because social exchange, for the Orokaiva, implies a state of competition between the partners. It is unprofitable to engage in social exchange with a partner unless one can hope to equal him (and even better him) in wealth and power. This desire to equal (and defeat) the Europeans competitively is an ambition of which informants spoke to me occasionally when I came to know them well. It was quite clear to the Orokaiva that they could never achieve this objective by growing coffee on small village plots. Hence, they could not regard the activity advocated by the government as being worth engaging in for its own sake. The question facing them was: will this activity serve our ultimate end of achieving equivalence or victory? The term 'development activity', as used in model 7 implies that it is thought to serve this ultimate end. 657 177

I demonstrated in the previous chapter that all elements of mediation are essentially magical. The Orokaiva similarly regard development activity as magical. In response to this notion, government officers sometimes evolve rules of behaviour that look remarkably like magical formulae. One officer in the Northern District invented a regular weekly calendar which he thought the Orokaiva should follow. Certain days of the week should be set aside for coffee growing, others for growing and marketing extra garden crops, others for cleaning and improving the village, and so on. I heard the officer proclaim this calendar; later, I heard a councillor proclaim it in Sivepe village. It was listened to with respectful attention, but afterwards ridiculed by the village men. The formula was rejected because it was thought to be useless. There was, of course, a plethora of such formulae circulating as many officers thought up their own, and most officers were rapidly transferred from one job to another. It was natural, therefore, for the Orokaiva to become selective in the formulae they adopted. Also, experience showed them that the formulae did not always work. 657 177 241 789

The difference between this modern magic and the traditional varieties lies in the greater uncertainty of the prescription. The Orokaiva habitually use an experimental approach to magic: if one medicine does not work, then try another. But all traditional medicine has at least an impeccable source: it was given by the ancestors. The magic of 'development' (money, Western technology, Western power) was, in Orokaiva belief, ultimately derived from Jesus 177 657 789

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 Christ and perhaps other supreme sources of which they have no knowledge, but
657 these ultimate sources mostly seem inaccessible to the Orokaiva; the people
[789] know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidentally, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 It may thus be said without hyperbole that community development among
657 the Orokaiva has a mythological charter – namely, the Christian religion as the
797 Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 But the second mediating element in this relationship is the councillors,
657 through whom the government's information must pass to reach the people.
623 They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is
[191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some
[554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[5] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8

Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organisation on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

24 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [12] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (K. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva parishioners.[2] [65] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw, 1951.. [2] See Crocombe, 1964:31.

249 recent agricultural census listed 55 stands with 13,700 trees in
433 the Saiho Census Division (which coincides roughly with the 'Periho'
311 area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 The agreement between the lessee and the villagers was modified
657 in 2 ways after the war. When the scheme was resumed in 1943 the
[434] Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 Until 1946 local villagers were employed by the lessee to tap
[464] their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] The Village Constables had been responsible for seeing that
[623] the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [651] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCCS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [771] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timmy clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Imbi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepe, as well as Hohorita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepa, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garoubi, a neighbour-village to Sivepa. Here traditional and modern authority were vested in different persons, whereas in Sivepa both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepa and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepa were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepa; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepa was wholly Christian. The most senior man in

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early 794 converts belong to the Jegase clan. Plant emblem groups (or lineages) are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepa, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the hands of the 184 transport driver and one-time councillor, who played the role of lay-preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepa were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepa by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepa.

653 a council responsibility. While the rebuilding of the arterial road
[491] from Popondetta and Kokoda was an expensive (and seemingly interminable) responsibility of the government, the side roads became the council's responsibility. Similarly, the government built the major hospitals while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of $8 for men and $1 for women. This is the only personal tax directly
[687] levied among Orokaiva village people and has replaced the government head tax. Its collection was not a government but a council responsibility, although defaulters could, of course, be brought before a magistrate and sentenced to a term in a government jail. Councillors explained to the villagers that the taxes they paid went to pay for their roads, aid posts, water supplies, etc. The government hoped that villagers would be more ready to pay their taxes if they could see tangible local benefits to justify them. One effect of the system was that villagers became very interested to see that as much as possible of the tax money should be spent in their own locality. They rapidly developed a strong propensity for parish-pump politics. When I visited Sasembata district first, there was little evidence of any council projects in the Sasembata wards. People objected to paying
[664] their taxes: they were not getting anything for them. Pressure resulted in roading improvements and plans for a comprehensive water supply for the area. Councillors who did not fight successfully for such causes were liable to miss re-election.

The head tax manifestly acted as a significant economic incentive.
[961] A man who grew no coffee and earned no money could not pay his tax. Even if a man could not be bothered harvesting all his coffee, he would certainly harvest enough to pay his tax. Some men who had no coffee took plantation jobs a month or two before the tax was due. I noticed this in two cases at Inonda; most of the Sivepe men had coffee
[687] gardens and did not need to work outside. For the first time, tax defaulters in 1966 were actually jailed for two months. In one village, Kendata, there were as many as 50 defaulters who fought the police and ran into the bush; in Sivepe there were four, all without coffee gardens.

In spite of this tension, people generally supported the ideology
[77] of the council: they wanted the "new age" and they wanted the kind
●623 of services that were supplied by the council. At the same time it was never forgotten that behind the tax-gathering councillors stood the government police, armed and ready to make arrests if the councillors were resisted or attached, as sometimes happened. Those who did not pay and tried to escape arrests were judged by the conformists to be ignorant men, unwisely looking for trouble. On the other hand, people deeply sympathised with them. People wanted the "new age," but they did not like the element of compulsion that went with it. They re-elected the councillors who compelled them because they held the Australian authorities, not the councillors, to be directly responsible.

Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
that must be carefully distinguished: attitudes to individual government
servants, to the power structure and to the values represented by the
563 government. As for attitudes to individual public servants, I have
no evidence for any change in attitudes. In a subtle way every white
man with whom Orokaiva come into contact is tested according to various
criteria: fairness, courtesy, willingness to reciprocate gifts and
services, willingness to eat with the people (a rare phenomenon,
this) and above all, his behaviour in the constant battle of wits
and inner strength in which Orokaiva delight. A man such as Mr. Kaad
who was a good man by all these tests, was remembered with much affection;
others, though excellent by the criteria of the Australian public
service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
177 a rather harsh history of earlier contacts, beginning with the murderous
régime of Monckton and culminating in the 1940's in the Japanese
conquest, the Allied re-conquest and the public execution of a small
band of Orokaiva who had sided with the Japanese. The welfare
orientation of the Australian government was perhaps never massively
demonstrated before the eruption of Mount Lamington. At the present
time this welfare orientation is well understood but the Orokaiva fear
the Australian power to compel their compliance. They use what
resources they have to keep this power within limits. They have found
that it is usually fruitless to disobey Australian commands openly,
but power can often be made ineffective if orders are misunderstood
or forgotten or evaded. Furthermore, it is a general rule among
Orokaiva to withhold information systematically from the taupa. It
took me some months to learn that even the simplest information I
had about the Orokaiva was often unknown to Europeans, not because
they were not interested but because nobody would tell them. On a
few occasions when an official asked me a question I would say that
any of his "driver-boys" (that was how they referred to their drivers)
could answer it and the official would answer: "Nobody will tell me.
They all say they don't know." This is indeed a potent weapon against
colonial administrators.

657 It would be wrong to assume that this attitude is directed
against Europeans in general, because there was great variation in
177 the treatment of individuals, and also, it is not directed against
the values Australians are trying to introduce. The avoidance of
communication is largely, I think, a device in the power struggle
between the colonial government and its subjects. The Orokaiva do
what they can to avoid being dominated. In this context, the setting
●[623] up of local government councils was a great step forwards. The councillors
do not meet with the same communication bar because the people know
that they can control them through the electoral machinery. Hence it

657 623 177 is the councillors who are most effective at communicating whatever they understand of European values and the Australians have been happy to reduce direct contact with the people to formal dealings in which intermediaries can definitely not be used. The Orokaiva say that it is only since the council was set up that their thinking began to change. While this is not to be believed, it would be correct to say that an ideology of change developed only through the mediation of the councillors. The humanitarian work done immediately after the eruption did not lead to ideological change because it did not set up effective mediating institutions.

his powers of black magic would be undermined by the church if he joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

One of his sons, however, did leave the village to join the A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

This son, baptised under the name of Lawrence in 1963, is now about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepe. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepe to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepe, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepe. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

Lawrence was comparatively well off, largely because he was a good coffee producer, but also because he received bridewealth from three daughters, continuing gifts from his sons in law and from the

177 husbands of his sisters' daughters, as is customary. Most of all, he
623 was a careful man who put whatever he accumulated to the most prudent
471 use. In his capacity of clan leader and village leader, he controlled two corporate savings accounts, one of $158, the other smaller and secret; people had full confidence that deposits were entirely safe in his care. Though he would never express himself in such terms, he was actually leading his people into a state of solid and (hopefully) economically viable peasantry.

177 I asked him what he thought were the qualifications of a leader.
623 A leader, he said, must be very smart and understanding, have a lot of garden and make a feast; then the people will join him. They don't appoint him but he stands out by his farming, gardening, feasts. He
[159] is usually an elderly man.

Not only Lawrence, but also all other informants insisted that leadership was not hereditary, even though a leader may desire a certain son to succeed him. After the old leader is dead, the living are free to make their own decision. Lawrence rejected the idea that the councillors are the present leaders of the community. The ancestors, he said, decided what people ought to do. They had talked all this over. Then the "two-bob councillors" came; all they care about is to carry out the government's orders. They don't really direct the people. All the same, Lawrence was well aware of the influence of the councillors. It was when they were established, he said, that the old way of thinking was upset. The village constable did not make important changes, though sometimes people went to jail for some trouble. In spite of these views, Lawrence went to no particular trouble to keep old customs alive; when he entertained Togabou village, there were far fewer ceremonial features than I saw at a feast at Inonda.

115 As an informant I found him entertaining but of limited usefulness. He was at first very reluctant, and later allowed himself to be interviewed, using the occasion as a battle of wits. Never once did he tell a direct lie, but his answers were cunningly planned with the intent to mislead. My part of the game was to get at the truth and in this game he was a most ingenious opponent. Sometimes he tried to conceal what seemed to me a most innocuous piece of information; thus, he alerted me to institutions I might otherwise have overlooked. No statement he made could be accepted on its face value. In this he differed from other informants less in intent than in ingenuity.

123 The other key personalities at the time of my visit were all
159 Jegase. As I had been apportioned to my clan, they were much more helpful with information. They adopted me as a sort of fictional clansman whereas to Lawrence I must have been a fictional affine. My closest associate in the village was actually the son-in-law Lawrence
[55] disliked, Robert, my neighbour. He was a man of about 32 who had most of the qualities admired by the Orokaiva: a fine dancer, with charm, modest bearing, wisdom and foresight in handling social situations and conflicts; he was generous with his possessions and did not importune others for gifts; he was a good gardener, builder and worker, ready

665 out of acculturation, such conflict falls outside the charter of the corporation, so that I think one may still speak of a Christian and a pagan faction, even though the membership of these factions happens, for the time being, to coincide with the membership of lineages. Another problem is whether factions can exist only where there is leadership. One of the interests expressed in Dr. Barnett's list of variables is in "latent factions"--and these may exist where one side (or perhaps even both sides) have no leader. Thus, I think one can speak of factions in Inonda, even though the pagan faction had no leader; this deficiency did, however, stop factionalism in that village from becoming more manifest. Nonetheless, even though the pagans had no leadership comparable to that of the ruling family, they had their own informal ranking system and were able to formulate common opposition, e.g., against the women's club. This informal leader was an elderly woman who terrified my wife but whom I later found to be an intelligent informant. Even in Inonda, factionalism did not go nearly as deep as among the modern Maori: the feast at Inonda rallied all the families and the factions became submerged, in a cause with which everyone agreed.

Perhaps, the main reason why Orokaiva conflict groups do not qualify as "factions" by Nicholas' definition is that they are not structurally diverse. I mean by this that conflict groups tend to rally on one particular issue, but that on any other issue the personnel are bound to be different. An interesting example is furnished by [623] [660] the elections for the Local Government Council. A respectable Sivepe man entered as candidate and collected six votes. These were from his own extended family who felt bound to vote for him. The others did not support him on that occasion, but on another occasion, when he attempted to rape the wife of a clansman when drunk, he had a great number of supporters and the family who had almost suffered this grievous misfortune had hardly any supporters at all.

622 growing in the village and these were consumed in a big feast 18 months or so after his death. There was much discussion, during these 18 months, as to who should follow Amos as leader; when I left, no decision had been made. He had himself designated the son of his elder brother who died during the eruption, but this man is a government driver, living in Popondetta. The people would prefer a local man for leader, but there is no suitable resident member of Amos' own hae. and in practise it seems that the question of leadership was debated not so much by the people at large but by the men of Amos' hae and Amos' wife's hae--the latter also coming from a prominent Horeopa family. Some leadership roles were meanwhile being carried on by an adoptive half-brother of Amos' wife. This man, a mission teacher who was head of the Hohorita school, and one of my best informants (Harold Heru), was in charge of the preparations for the coconut feast commemorating Amos' death, but he deferred to Amos' brother's son (Michael) on the day of the feast itself, when Michael came over from Popondetta.

622 While these problems over ceremonial leadership were being pondered, it was obvious that for most ordinary day-to-day decisions, ●623 the most powerful man in the village was the councillor (Brian Aruha). Brian, though without any formal schooling, was employed by the government as an interpreter in the fifties. His employers formed a high opinion of him and it was probably not without their encouragement that he stood as a candidate for the Higaturu Council and was subsequently chosen by councillors as their chairman. In the view of senior government officials in Popondetta, Brian's knowledge of the history, activities and purposes of the council was unequalled in the district. He did not earn this reputation by craven conformity; indeed, I observed him at council meetings as a doughty opponent of the views of the government's advisory officer, even though he sometimes found himself arguing a strong case in a minority of one, for the other councillors tended to be rather deferential to the advisory officer.

622 Brian's power in Hohorita was much less absolute than Stephen's at Inonda because Hohorita has a far greater number of leading figures. 554 On the other hand, in the judging of disputes and in arranging the land conversion scheme described in earlier chapters, he wielded more power than any single person in Sivepe. In contrast with the Inonda and Sivepe leaders, Brian did not belong to the leading clan (Horeopa) nor to either of the other three well-represented clan groups. His real home was Sombou; at Amos' coconut feast he appeared as the leader of the dominant Sombou clan and in that capacity received gifts in recognition of services which this village had rendered after Amos' death--the traditional services expected from a neighbouring, closely-related village. Thus the power he wielded at Hohorita had the effect of spreading power beyond the dominant Horeopa clan, thus helping in the integration of the different clan groups.

622 Brian was assisted by a "committee" man who also came from one 624 of the smaller clan groups and who had at one time been a medical

624 Residential units created for administrative purposes seldom had a single focus of allegiance. In the case of Sivepe, the officials appointed by the government in separate villages were thrown together in one village and were later replaced by the local government councillor.

In the mixed post-eruption settlements too, Keesing (1951:9-11) noted conflicting authority between men of different descent groups. Leadership had to be bureaucratically imposed and 'there were no signs of a self-motivated [political] superstructure taking form other than the strengthening of scattered clan ties'.

613 554 Varying definitions have been given of corporate descent groups whose representatives might be said to have legitimate control of land among the mountain Orokaiva: Norton (1962:2-7) describes the embo dombo as a man 'who by virtue of being the senior member of a lineage and by having a superior knowledge of land matters, is regarded as the chief authority in the lineage', and says that the composition of the land controlling group varies from 1 or a number of lineages within the clan to the entire clan. [614] There are said to be as many embo/dombo in a landholding group as there are lineages yet he later maintains that

> in each 'clan' a male member, by virtue of his age, his seniority in a descent group and knowledge of the land, has a recognised authority over any matters affecting the activities of the clan of which he is a member and particularly on land affairs. There may be one such man in a 'clan' or a number and he is known as the Embo Dombo.

Norton suggests that every male member of the controlling group is an enda mano (master of the land), and that the term has sometimes been incorrectly identified with a 'chief land holder'.

Belshaw (1951:2-3) states that the 'minor lineage', constituting all or part of a 'hamlet', shares land and works it together. But particular members 'through their slightly different relationship connections sometimes have senior claims to different areas of land' and a member is enda mano only insofar as the group is currently cultivating the land to which he has senior claim.

624 614 Plant (1951: Appendix 2) diverges more from Norton's definition of enda mano saying that there is one man with this title who is guardian and administrator of land, which is vested in the clan. Although these powers in land matters are more continuous and wider in scope than Belshaw maintains, Plant explicitly distinguishes them from the status of embo (peni) dombo (clan headman). He narrows them further to residual rights to make decisions, in council with clan members, on important matters concerning any of the areas which sections (or segments) of the clan in different

624 614 villages and individual members of these groups have come to regard as their own, since 'usage tacitly becomes ownership'.[1]

Norton's use of enda mano seems the most accurate whereas we would accept as valid for groups of any order Plant's separation of the status of embo dombo from that of a 'chief land controller' (or of any man with an authoritative local and historical knowledge of land). But we found no evidence to indicate that any person at Sivepa exercises rights to the land associated with either of the 3 clan branches, such as the landrights Plant and Belshaw attribute to the enda mano or Norton attributes to the embo dombo.

[425 428] Among our recorded cases of land falling without direct lineal heirs, none seems to show that a person such as an embo dombo acquires it by exercising reversionary rights on behalf of the wider agnatic group.

Just as the function of a descent group of given dimension or local organisation is specific to a time and place, the way control over land has devolved among its constituent units closely defines the role of the member (or members) with most influence in issues concerning land, whatever powers he happens to exercise in other connections. The nominal leader of the dispersed branch of Jegase clan is the local government councillor: an assertive middle-aged man, he is senior by any reckoning to other active members of Bebehupa lineage. He has more land than any other Jegase man in the neighbourhood. Nevertheless the scope of his authority in land matters affecting other Jegase men is severely restricted in that the interdependent Arehu and Berekipa lineages have been completely independent of others in the control of their land for the past 50 years.

613 624 [554 614] He retains prestige and influence in many matters of concern to his own lineage. He can claim prominence among more close agnates than a leading man of any other lineage in our sample, even though the Bebehupa have now dispersed from Binduta to Garombi, Mahihita, Kakita, Awala and Sivepa. They now say it is their responsibility as embo bajari (protector or sometimes a co-parcener, especially one responsible for controlling holdings of other heirs) to look after particular parcels of lineage land near these villages.

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[1] Ibid., quoting Williams (1928:125), who is referring to 'sections' (alternatively 'branches' and 'families'). See Norton (1962:8): the tacit permission of the clan for individuals and their descendants to use a vaguely demarcated area is not a 'permanent or ultimate authority vested in the individual by the passage of time.... This in no way grants the man or his successors ownership rights in it' (ibid.:9).

613 Actually no power has been delegated by the leader of their
624 lineage. They are de facto custodians to the extent that circumstances had forced them to leave their original village and each selected a place to settle convenient to one of the areas where he could exercise individual rights to patrimonial or other land. They could at the same time protect the interests of other members with landholdings nearby. Although they refer to this trust as Bebehupa land, the reciprocal obligations seem to have followed on a mutual agreement reached by particular individuals.

It is however in this group that the councillor still expects to exert most influence in the discussion of general affairs. Within it he has a recognized standing as the largest landholder. On this account his opinion and knowledge of the locality are respected also by Jegase men of other lineages. Besides, they share many boundaries with other Bebehupa men and with members of Binduta and Awala villages among whom he could conveniently serve as a representative of their interests, having closer ties with these villages than they.

Otherwise his powers outside the affairs of the dispersed Jegase lineage are related to his position as councillor. He and another councillor were elected by Sivepo, Binduta and Awala villagers before he left Binduta and attached himself to Sivepo. In this capacity he receives no more support from other Jegase men in Sivepo than from the rest of the village. In 1963 a young man of another Jegase lineage there, with considerable support from voters within Sivepo, was a rival candidate for councillor for the 3 villages but was unsuccessful.

613 We have so far discussed only the powers of Bebehupa men,
614 either in their lineage or in the clan branch. The other Jegase
423 men enjoy rights of land control which are even more limited. The proprietary rights now held by each householder of the Berekipa-Arehu part of the clan branch were acquired by him independently of the others. Although there is frequent interchange of planting rights and consequent discussion among them as to the allocation of their resources none of the 4 could claim of right an equal voice in the control of the others' land. Again, each of the 2 Timumu lineages had settled independently in the neighbourhood of Sivepo by acquiring land from sources inaccessible to the other.

Associated with the weakness of central control over land of smaller groups on clan branch territory is the complete freedom each landholder has in granting usufructuary rights, provided due consideration is given to the anticipated physical needs of any joint heir (i.e., a sibling) or of any dependents for whom he is responsible. Each thus maintains relationships with other

622 growing in the village and these were consumed in a big feast 18 months or so after his death. There was much discussion, during these 18 months, as to who should follow Amos as leader; when I left, no decision had been made. He had himself designated the son of his elder brother who died during the eruption, but this man is a government driver, living in Popondetta. The people would prefer a local man for leader, but there is no suitable resident member of Amos' own hae. and in practise it seems that the question of leadership was debated not so much by the people at large but by the men of Amos' hae and Amos' wife's hae--the latter also coming from a prominent Horeopa family. Some leadership roles were meanwhile being carried on by an adoptive half-brother of Amos' wife. This man, a mission teacher who was head of the Hoborita school, and one of my best informants (Harold Heru), was in charge of the preparations for the coconut feast commemorating Amos' death, but he deferred to Amos' brother's son (Michael) on the day of the feast itself, when Michael came over from Popondetta.

622 While these problems over ceremonial leadership were being pondered, it was obvious that for most ordinary day-to-day decisions, 623 the most powerful man in the village was the councillor (Brian Aruha). Brian, though without any formal schooling, was employed by the government as an interpreter in the fifties. His employers formed a high opinion of him and it was probably not without their encouragement that he stood as a candidate for the Higaturu Council and was subsequently chosen by councillors as their chairman. In the view of senior government officials in Popondetta, Brian's knowledge of the history, activities and purposes of the council was unequalled in the district. He did not earn this reputation by craven conformity; indeed, I observed him at council meetings as a doughty opponent of the views of the government's advisory officer, even though he sometimes found himself arguing a strong case in a minority of one, for the other councillors tended to be rather deferential to the advisory officer.

622 Brian's power in Hoborita was much less absolute than Stephen's at Inonda because Hoborita has a far greater number of leading figures. 554 On the other hand, in the judging of disputes and in arranging the land conversion scheme described in earlier chapters, he wielded more power than any single person in Sivepe. In contrast with the Inonda and Sivepe leaders, Brian did not belong to the leading clan (Horeopa) nor to either of the other three well-represented clan groups. His real home was Sombou; at Amos' coconut feast he appeared as the leader of the dominant Sombou clan and in that capacity received gifts in recognition of services which this village had rendered after Amos' death--the traditional services expected from a neighbouring, closely-related village. Thus the power he wielded at Hoborita had the effect of spreading power beyond the dominant Horeopa clan, thus helping in the integration of the different clan groups.

622 Brian was assisted by a "committee" man who also came from one of the smaller clan groups and who had at one time been a medical
624

622 orderly. This man, like the "committee" in Sivepe, was responsible
624 for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 Two other formal organisations in Hohorita pursued ends likewise
474 related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck.
454 By the time I left, this committee had accumulated almost $1,000, and
452 the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

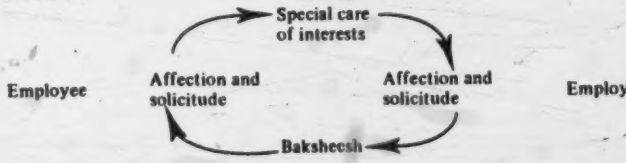
474 The composition of this committee was interesting: it did not
452 include the councillor, but consisted of the head teacher at Hohorita, and a priest and a public servant both resident in Popondetta. All three belonged to the Hvreopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for this scheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmowers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

employer give something in excess of their contractual obligation. These services and gifts over and above the formal contract are a form of social exchange. Both parties seem to be expressing affection and solicitude for the other. The worker does this by special care for his employer's interests; the employer does it by 'baksheesh'. The latter are never just extra handouts or cast-offs, though these may also be given. They are usually responses to appeals by the worker who describes an emergency that has arisen for which he requires some object of usually quite limited value: old batteries, a little kerosene, etc. It is the employer's solicitude in response to a claim which gives these objects their special value (though, of course, they have some monetary value as well). This social exchange can be expressed in the following diagram:

MODEL 6



This model represents the ideal norm of the relationship, as seen by the Orokaiva. He is well aware that the reality often falls far short of the ideal norm: not all employers show affection and solicitude. It is, however, a more serious flaw of the model that the white employer would totally reject it; his ideal norm of the employer-employee relationship is a very different one that does not involve social exchange (or baksheesh) at all. There is, in fact, a conflict of ideal norms between employer and employee. The actual arrangements on the plantations, which I have briefly sketched, are a sort of compromise or accommodation between the two conflicting concepts of employment: the employee accepts the fact that baksheesh is usually rather unwillingly and rudely handed over, as being a regrettable white man's custom; and the employer somehow makes room for a minimum of baksheesh on his balance sheet.

The fact that the conflict of values remains unresolved in this relationship does not vitally threaten plantation development, but similar conflicts are not so easily sidestepped in the Orokaiva's relationship with government and the mission. Neither community development nor religious conversion will be successful without some ideological commitment on the part of the receivers of the message. Obvious though this statement is, it is worth while to spell out its implications here, as it applies to the implementation of government policy.

Policy is formulated in Port Moresby and promulgated by the Administrator in the form of ordinances and regulations. Instructions on the enforcement of these are prepared by the Department of District Administration in Port Moresby and interpreted, in the light of local conditions, by the Department's officers in Popondetta, the administrative centre of the Northern District. But how can these ordinances and regulations be enforced in the jungle by a very limited number of patrol officers? Until 1956, a rather simple procedure was used. The patrol officers appointed a large number of suitable Orokaiva as village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

constables, instructed them to report any trouble, visited the villages, looked for evidence of non-compliance with instructions, punished delinquents, left further instructions with the village constable and threatened further punishment. The trouble with this procedure was that the changes it could produce were of rather limited scope. All the Orokaiva needed to do to keep the patrol officer satisfied was to attend to things that could be seen on a visit (the state of the roads, houses, latrines, the grass in the villages, the quota of obligatory rubber trees, etc.) and to avoid the kind of trouble the village constable could not help reporting (murders, serious dissensions).

Social and economic development, however, depends on the communication of ideas, on encouraging regular schooling, use of medical facilities, cash-cropping, the development of markets, participation in local government, preparing the young for careers outside the district, encouraging capital formation and entrepreneurship, improvement of agricultural techniques, land titles, and so on. In the 1950s, when the government became deeply interested in these objectives, it created local government councils, abolished village constables, and rather forcefully changed its emphasis from the enforcement of compliance to the inducement of collaboration. Some of the Australian officers told me they found this shift rather frightening: if there was no jail for non-compliance, how could one be sure that the Orokaiva would take any notice? On the other hand, Orokaiva conservatives found the shift in policy frightening for the opposite reason: as they told me, the village constables left Orokaiva social life virtually intact, except that occasionally someone would be sent to jail for a while – a mere ripple on the surface of community affairs. But since the government councils were established, and the councillors came round regularly making long speeches, and since the new institutions listed above had actually been demonstrated to be useful, the foundations of the old way of life were beginning to be undermined.

With the help of the councillors, the government's ideas were certainly being communicated, but hardly ever by the government's own officers.[4] The only white officers who regularly visit villagers are young, inexperienced patrol officers, dependent on interpreters. Speech-making is only a minor part of their role and not the most successful. All the councillors I have heard, however, are master propagandists. As the government's aim is clearly the communication of ideas, it would be hard to find a more efficient method than the present one, where the government communicates to the councillors and leaves the latter to do the rest.

An interesting and somewhat unusual exchange cycle results from these transactions. The exchange partners are the government and groups of Orokaiva villagers. The objects of exchange are information (emanating from the government) and respectful attention (on the part of the villagers). I use this term 'respectful attention' as the nearest translation of Orokaiva *ingari* which means 'to hear', 'to understand', 'to follow advice' – and comes closer than any other word in the Orokaiva vocabulary to the notion of obedience and compliance. The exchange cycle may be expressed in the following diagram:

scheme to Ioma and other areas. At Ioma "it was only when faced with the alternative of going to gaol for failure to pay tax that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

The standard penalty for failure to work was three months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

Daily work on the community coffee gardens was supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

Such was the difficulty of getting labour to carry the produce from the factory at Higaturu to the port of Sanananda (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

extension staff left, the internal tensions re-asserted themselves.

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots.

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)[1] was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.[2] People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system

(1) When the council was formed all village constables were compulsorily retired.

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning.

As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Hamburata Communal Garden

Before the war there were four cash crops planted at Hamburata: rice, coconut, palm oil and coffee. The rice was planted on Atupa clan's land. Five villages took part in the work .... There were 29 clans .... The villagers worked for the rice for one year without any pay. The rice was harvested in bags .... The people brought the bags of rice to Buna but the government did not pay them for the work they did on the rice. They worked for the rice for one year only ....

The second crop planted at Hamburata was coconut. The coconut was planted on land of Atupa clan .... The coconut plants were still young when the villagers were told by the government to plant another crop. The crop was palm oil .... The palms were planted on Haumepa clan's land. The villagers planted the oil palm and looked after them for one year and the government told the people to plant another crop. The other crop was coffee.

The coffee was planted on Seharipa clan's land .... They worked every day .... They got pay once in every year. The government officers used to come to the village. The government used to send police to the village to look after the people to work on the coffee .... When the war was near the government did not send the police to the village for this work. After that all the people in the village stopped work .... After the war they did not work on the plantation until the Mt Lamington eruption. The coffee was near the Ambogo river so the river was flooded and washed the plantation away ....

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
By 1908 members of the various tribes were peaceably trading with
625 the carriers along the road (Territory of Papua 1907-8:22).

166 In about 50 years preceding the establishment of their present
361 village the groups now represented in Sivepe had between them
177 been involved in shifts of residence between a series of 14
village sites within an area of about 2 square miles adjoining
the Sohu River. Informants claimed that they or their ancestors
moved from 11 of these under instructions from government officers
to amalgamate into larger units. During this period members of
several other descent groups have either accompanied them or
[G21] established independent villages and worked land of their own in
the same area. Intermarriage among contemporary villages there
was common and individuals frequently moved from one to join kin
in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata,
both on what is now Jegase land hardly a mile from the present
site of Sivepe.[1]

(1) Migration 1900-50: The Bebehupa moved from Simbehata to
Korogombata[2] and were joined by some members of Usohu living
nearby.[3] Except for 3 families which moved out to form Kisisita,
Aurija and Andakahambo villages, they remained there until about
1937 when they were asked by the Administration to reunite with
these 3 to establish Korinasusu. One of the 2 major pre-war
tracks from the coast to Kokoda lay nearby and when Japanese and
Australian troops moved along this in 1942 the people abandoned
the village and moved into isolated garden huts. Most villagers
returned to Korinasusu after the war but 1 group founded Nahihita
nearby.

[G57] In 1950 the Administration instructed the Bebehupa of
Korinasusu and Nahihita to join the Usohu people living in
Gogovosusu and Binduta to form one large village. Up to that
time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

A, [See Category 102, p. 40--Analyst]

556 [898] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 [622] The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

C25 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[1] Cf. kiti iigari (p.30).

[515] [2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

249 recent agricultural census listed 55 stands with 13,700 trees in
433 the Saiho Census Division (which coincides roughly with the 'Periho'
311 area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 b. The agreement between the lessee and the villagers was modified
657 in 2 ways after the war. When the scheme was resumed in 1943 the
[434] Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 c. Until 1946 local villagers were employed by the lessee to tap
[464] their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] The Village Constables had been responsible for seeing that
[623] the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

d. The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

249 the money from latex sales fell this time to the tappers. Either because tappers, village officials and 'owners' had not reached agreement on a method of sharing the money or because they expected that any distribution needed to be supervised as before, tappers from some villages asked the planter to advise them on the distribution of the income. On one occasion many villagers retained their income pending the planter's return after an absence of 18 months (during which time the rate of latex-buying fell to a very low level). The cases where arbitration was sought often involved £20 or £30 and sometimes £80; in most cases an agreement was reached to share the proceeds equally between the tapper and the owners, who in turn took equal shares. One sanction confronting a number of tappers who were reluctant to divide the money was the prospect that the latex they produced would not be bought if they failed to co-operate.

[625] When the new village of Sivepe was established after the eruption the Village Constable who had worked on rubber estates at Sogeri in the Central District before the war organized the resumption of work on the Pusahambo stand and taught some of the younger men the rudiments of tapping. A roster system which is still in operation was introduced at about that time. Except for residents not descended from the original planters and of 2 former residents of Binduta, who continue to share the income from the Korinasusu stand with Binduta tappers,[1] each villager in Sivepe with any knowledge of tapping is given exclusive rights to the produce from the Pusahambo stand for 1 or 2 months.

No one has power to direct the long-term operation of the scheme and there are no formal arrangements governing the exact period for which each man may tap the trees or determining the sequence of tappers more than 2 or 3 months ahead. Periodic discussion seems to ensure that each tapper has satisfactory access to the trees.

The present system is not conducive to the adoption of measures for field maintenance of the rubber stand or for the preservation of tapping panels. Each man works to produce as much as possible in a short time. After that he has no further interest in the stand for perhaps 18 months when he resumes tapping. Accordingly nobody is inclined to accept responsibility for the maintenance of the stand.

Few tappers work systematically; many trees on the periphery of the stand are bypassed for long periods while those towards the

[1] Like many other stands in the subdistrict Korinasusu has not been tapped regularly in recent years. The planter finds that production from stands still being tapped reaches the peak about the time annual council taxes are due.

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepa came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepa; the sanitary inspector appointed by the council, who lived at Garombi, came even more frequently, while many Sivepa people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[199] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in favour of the new and opposed to the old way. He was not actually
[625] criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

184 Jegase, thus making Sivepe basically into a two-clan village, into
621 which some recent Garombi immigrants remain to be integrated. Inonda,
614 in 1951, consisted of 13 houses of which nine were inhabited by Andiriha, three by Jego-undi and one bachelor's house. In 1966, there were only seven houses, only one of which was occupied by Jego-undi. Hence, Inonda has almost ceased to be a two-clan village today.

571 I have written at length about modern Orokaiva leadership elsewhere (Schwimmer, 1967) and shall do little more here than summarise the conclusions already published. The scope and range of Orokaiva leadership has always been small, except for the heads of extended families (okose) who had a very wide scope of authority. Each village had a set of experts who had unquestioned authority in their sphere of expertise. Examples are the medicine man, the hunting expert,
[554 dancing expert and some others. One of these experts, the feasting
[622 expert, is in fact the man of highest status in the clan or village
[614 and may be called its leader. A clan leader may take responsibility for such corporate actions as a modern clan performs, e.g., raise bride price for one of its members. Except in these circumscribed situations, he is esteemed and respected rather than obeyed. The village leader, in a multi-clan village, is usually the leader of the largest clan. In dealings with other villages, he is the man to whom most respect must be paid; it is here, and when acting as a feasting leader, that he most closely approaches the role of power-bearer. Even so, the Orokaiva word for "feasting leader" is pondo kiari embo, i.e., feasting expert, and in explanation of his role informants always stress that it is based on expertise rather than on a more diffuse concept of status. I also found, after inquiring in Inonda, Hohorita and seven villages in the Sasembata district, that in fact the fathers of all these feasting leaders had occupied the same positions. Nonetheless, informants always denied that the office was inherited; rather, the fact of succession was explained by the transmission of the necessary knowledge from father to son.

621 Australian domination added at once the role of village constable
622 to this somewhat acephalous pattern. One gathers from Monckton that
625 the village constable was chosen on the assumption that he had been
614 the traditional leader. How often that assumption was justified I do not know. In Inonda, he certainly was the Andiriha clan leader. In Sivepe, the situation was more complex. Until about 1939, Sivepe had no village constable of its own, but an Awala man was village constable for a wide area centred on Awala and including Sivepe. The first and only Sivepe village constable was a man now baptised under the name of Samuel but then called Jovareka. Jovareka appeared as witness to prove the innocence of two Sivepe men (from the Seho clan) who had been accused of murdering a small boy from Awala. He showed successfully that the village constable had trumped up a charge against the two Sivepe men and the government appointed Jovareka village constable in his place. Later, Jovareka's area was reduced to a more

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepe; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
614 which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies [384] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. [754] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I [627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the
731 village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

625 731 excursions. This was, however, an experience of short duration and, once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] [571] With regard to interpersonal relations, the evacuation set up a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 571 The Orokaiva are not often observed to work in groups; from the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to [342] [177] describe this pattern as Individualistic. After all, every house was in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 654 571 Unwittingly, the Australian government has tended to make the Orokaiva more oriented towards group work than he was before. Road work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

361 mingled more freely as a result of travel on the government
571 roads and trails (which they have to keep in order), trading,
Mission and official gatherings, and other new opportunities
224 for interpersonal relations. One special feature of Orokaiva
life in modern times is the annual burning-off of grasslands
by hunting parties in order to get wild game. This has
[628] probably involved the assembly of larger groups and is one
of the few activities which could induce intersettlement co-
311 operation. The writer sensed the parallel of the crude local
fires set for garden clearing and the general burning-off
of grasslands to the major burning and blackening in the
wake of the volcano—doubtless a mighty job of clearing to
the Orokaiva eye.

157 Within the limits that brief characterizations of personality
norms can be valid, observers seem to agree that the Oro-
kaiva as individuals have traits congruent with the social
structure that favor individuality and mobility. Even the
casual visitor gets a sense of independence, alertness, self-
reliance, "strong talking," dignity, restraint, imperturbability
at meeting the unexpected event, and high-tension inter-
personal behavior in general. This is in particularly striking
contrast to such an elaborately structured society as that
of Samoa, where the writer had been working shortly before.
In informal groups seen around the camps and waiting at
airfields for transport, women and children, far from being
in the background, kept up a busy verbal exchange with the
[657] men. The Administration has considered the Orokaiva ter-
ritory as perhaps the best recruiting ground for its Royal
[625] Papuan Constabulary on the basis of these personality char-
acteristics, including ability to meet crisis conditions such
as patrols may encounter.

791 The Orokaiva religious history is also particularly inter-
esting here. Their traditional faith, Williams says, though
in many respects vague and locally variable, concerned itself
"primarily with the spirits of the dead" and their influence
on the welfare of the living. Death was appraised with
[761] particular realism, although it was considered ultimately as
[789] the result of supernatural causes. Magic had a consistent
794 place. Orokaiva country, however, has been swept in modern
times by a series of new cults indicative of religious adap-
tability in the face of fresh experience. First to come into
prominence was the *Baigona*, or "snake cult" of 1911-12,
succeeded from 1914 on by the so-called "Taro cult" which
in turn had undergone a series of local reformulations by
the time Williams reported on it in 1924.[7] Central features
of the Taro cult were association of successful taro cultiva-
tion with the ancestral spirits, approached by way of a
"shaking-fit" technique of revelation, together with some-
what new types of public ritual and symbols, including frag-
mentary elements from Christianity. Later Belshaw and
others reported that "Christian Co-operative Evangelist"
societies, which were developed by the Anglican Mission
among some Orokaiva converts for the cooperative growing
of rice and other crops, tended to assume a somewhat parallel
404 and absorbing mystical agriculture context. Rumors spread
668 of "an order from the King (of England) that co-operatives
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7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.
[113]

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

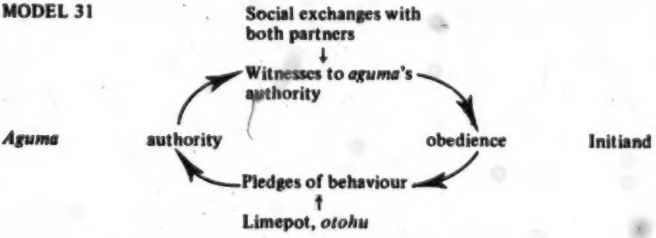
It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20), we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

A [See p. 135, Cat. 431--Analyst]

729 881 [537] they would always add credibility to the words of the *aguma*, as their authority would not be questioned by the initiand.

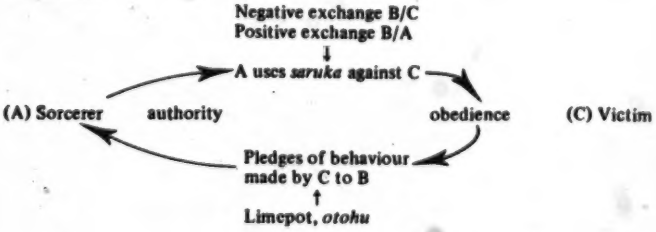
The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



754 626 [628] If the initiate should later break a pledge, the wronged person may call upon a sorcerer whose position I have suggested to be symbolically equivalent to that of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1)

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it.

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2)

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group.

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951.

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed oeiea - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

Visoare are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A,(See Category 574, p.26--Analyst)

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

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212 C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

(592) Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income[2] for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

(626)

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among the Orokaiva, though the women do certainly at times act as a solidary group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

wife, effectively shaming the husband. Today's organisations are sponsored by the government as well as the mission. The government employs a female "welfare officer," attached to the Department of District Administration at Popondetta, who is charged with the organising and supervising of what are cal'ed women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc., make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on theirknowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club, built a club house in 1967 and had the use of a sewing machine. Kiorota had a club house, used not only by the women but also by the men when there were important visitors.

In the Sasembata district, the women's clubs became fused with their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too faraway to attend regularly at the mission station, several branches were formed, in places such as Kendata and Puri, while the villages within easy reach (Sasembata, Sivepe, Garombi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepe and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepe women. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepe at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

867 Children were trained by their parents in the prevalent system
869 of custom and belief, as modified by recent changes; they maintained
177 their traditional regard for their elders, not regarding their school knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly expected to help their kinsfolk, especially if their knowledge had
602 yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed awy from home would soon have to be shared out if they returned to Sivepe. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro [illegible] sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

693 The councillor, the court and the police are only a last resort in serious quarrels. I saw a councillor enter a dispute once, playing a
627 mediating role between disputants from two villages, but without playing more than an advisory role. One quarrel was taken to court, but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the new Garoubi arrivals. She and the husband fought and had to be
626 separated as the lady had an axe; the domestic dispute soon died down but the Garoubi woman laid a complaint for slander with the police. Before this came to court, the wife had been roundly condemned by almost everyone in the village; she had repented, had gone round the village to signify her regrets, and been as contrite as her pride could possibly allow her to be. The court let her off with a reprimand. The episode, far from suggesting a flagging of Orokaiva traditional social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
627 Western civilisation, have been quick to see the advantages of a judicial system providing an impartial arbiter in disputes, to whose decisions both parties will defer. At the moment, this western judicial system is an additional resource of Orokaiva law, without undermining its existing institutions.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

571 But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

571 604 881 Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

602 572 171 How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

431 437 572 Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would [576] be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and [626] if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

[558] In considering the manner in which these gifts are given, Sahlins'

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems. 431

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive. 431 436

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility. 431 436 829

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law. 581 586 627

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all [769] these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His [627] father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

villager it is said that the aggrieved party will place his erahu on the path leading to the land concerned as a warning to the offender. If he does not take heed the aggrieved will have recourse to sorcery or physical violence, or he may (less commonly) bring it before the assembled men of the village. If all are agreed on a course of action but the offender refuses to comply, he may be evicted. Two men of the subordinate subclan were threatened with eviction for alleged theft of produce shortly before our arrival. No further thefts occurred.

At present the only body with effective power to settle disputes is the Department of Native Affairs to which the people frequently have recourse. Just prior to our arrival one man had reported another villager for animal trespass and damage to his crops. The matter was settled by an informal payment of damages arranged in the presence of a member of the official patrol staff.

Current problems in relation to the enforcement of rights are discussed on pages 76-77.

assistance. The system of investigation followed by the Commission is very detailed, and accordingly in the period of three years since the Commissioner was posted to the district only about five disputes have been settled. Already 34 other cases are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

In the meantime the area is left without adequate machinery for the definition of rights and the settlement of disputes. Indigenous leaders, whether councillors, clan heads or other elders have no legal right to determine disputes, and although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1)- Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to consider-
[556] ably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

353 *tapa* cloths, also worn on ceremonial occa-
[415] sions; often nowadays mother's best dress and father's best shorts and shirt are also kept in this box. Everyday tools—fishing spears, pig spear, bush knife, and axe—are stored between the floor joists under the floor platform. A
[372] bundle of dry firewood may be stored under the house in case of a prolonged spell of wet
[227] weather. The dwelling of each clan fishing-leader is easily recognized by the large seine net hung to dry under the eaves or rolled in a corner of the verandah.

342 The Yega build one other form of dwelling, a garden shelter (*dobo*) usually roughly constructed with leaf walls, frequently open at one end and often so low from floor to roof that a person cannot stand erect in it. A *dobo* is a temporary dwelling, built near the swidden in current use, and used by a man and his family for up to a week at a time while they are working in their gardens, which may be three or four miles from the village. The *dobo* is also used to shelter from rain or to take a siesta during shorter, one-day visits to the garden.

343 A *gaga* is simply a talking platform where
[461] men sit for a chat, a chew (of betelnut) or a
[614] smoke during siesta time, or after the day's work is done. There is usually at least one *gaga* for each clan in a village. The *gaga* per-
[627] forms an important social function for it is here that quarrels are settled, marriages arran-
[584] ged, and the everyday problems and business of the village discussed and finalised.

291 Everyday clothing is a pair of shorts and maybe a shirt or a singlet for boys and men, and a cotton dress or skirt for girls and women.
[287] The traditional body covering for both men and women was beaten out bark-cloth of the paper mulberry tree. This is used throughout
[171] the Pacific and is known as *tapa*. *Tapa* skirts and loin cloths are still worn on special occasions, such as weddings and New Year sing-sings, while many older people wear *tapa* to
323 church on Sundays. The Yega and their neigh-
[289] bours are expert tapa-makers but they did not have either the suitable clay or the art of pot-
439 making. They used to trade their *tapa* for pots from Ambasi, thirty miles to the north, and
[178] from Wanigela, 100 miles to the south. This trade has now declined because everybody can

[P.11-A) [TEXT CONTINUED ON PAGE 12-A]

621 622 625 614 manageable size. Jovareka was definitely not a hereditary leader in Sivepe; in fact, he was not even born there. On the other hand, the two men he saved belonged to the leading family of the Seho clan, which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies [364] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. [754] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I think, be conceded. Nonetheless, Samuel was evidently called in as [627] a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 731 The evacuation camp seems to have placed a heavy burden on the village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

693 The councillor, the court and the police are only a last resort in serious quarrels. I saw a councillor enter a dispute once, playing a
● 627 mediating role between disputants from two villages, but without playing more than an advisory role. One quarrel was taken to court, but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the
626 new Garombi arrivals. She and the husband fought and had to be separated as the lady had an axe; the domestic dispute soon died down but the Garombi woman laid a complaint for slander with the police. Before this came to court, the wife had been roundly condemned by almost everyone in the village; she had repented, had gone round the village to signify her regrets, and been as contrite as her pride could possibly allow her to be. The court let her off with a reprimand. The episode, far from suggesting a flagging of Orokaiva traditional social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
627 Western civilisation, have been quick to see the advantages of a judicial system providing an impartial arbiter in disputes, to whose decisions both parties will defer. At the moment, this western judicial system is an additional resource of Orokaiva law, without undermining its existing institutions.

felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and th[illegible]aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

462
464

TABLE II/5 (*continued*)

Activity	*Total hours*	*Percentage contrib.**
Both		*Men*
Paid work	1,128.8	56
Other crops – harvest	1,109.0	54
Sick – personal	442.6	53
Yam – harvest	412.6	53
Coffee – process	398.4	53
Collecting firewood	234.1	52
Social obligations – mourning	783.9	51
Other crops – market	66.9	51
Church services	1,946.2	46
Meetings	898.7	44
Fishing	165.0	44
Council work	824.2	42
Taro – maintain	2,551.6	37

* Where one sex carries out more than two-thirds of the work and where the total amount exceeds .01 per cent (29.0 hours) of the total hours active for the whole sample.

there is a ritual prohibition, for which I shall later quote the mythological charter, to hold a feast at all. 433 437

In any case, there seem to be two basic limitations to the size of a feast. First, the custom of restricting the number of guests to the inhabitants of *one* village, usually of about the same size as the inviting village. There are of course many variations to this custom but the principle of limitation is usually present. Secondly, the generosity shown to the guests, though outwardly most impressive, is restricted by the amount the guests can physically carry away. Though the food lying on the feasting platform looks inexhaustible to the observer, and the guests are capable of carrying away a heroic amount of food after a feast, the overall economic impact is minor. 527 527 574 628

Waddell remarks most interestingly that, in comparison with the main crops (taro, bananas and sugar-cane), a far higher proportion of dry season crops enter the exchange network. This applies especially to sago, breadfruit, sweet potatoes and yams. Waddell does not discuss nuts, but these are often given to friends and function as the small change of sociability. Both *tauga* and *puga* are stored for the season of shortage; betelnut is a traditional trade item. All vegetable produce is nowadays considered suitable for marketing. Villages near Popondetta have far more opportunity to sell or barter produce than the villages on the Mount Lamington foothills. 439 437 438

It is customary for animal food to enter the exchange network, either as a gift or as part of a festive meal to which guests are invited. Meat is ceremonial food, eaten for instance to mark the settlement of a quarrel. It is considered somewhat [261]

[TEXT CONTINUED ON PAGE 31]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

improper to eat meat without introducing some element of gift exchange, very much like 'party food' in our own society.

In general, people take any wood they need from their own land. The only record I have of transactions involving wood concerns the obtaining of less common building materials for houses. My informants made a clear distinction between gifts of bush trees and gifts of sago. The former kind create no specific debt but whenever sago is taken a return gift is expected, because, I was told, sago is a cultivated plant.

With regard to feathers and *hambo*, attitudes differ as between areas where raw materials are plentiful and areas where they are rare. On the Mount Lamington foothills they seldom enter the exchange network – perhaps once a generarion, during a ceremony of uncommon importance. On the alluvial plains, they are a frequent trade item.[8] Of other items of traditional trade, betelnuts and lime are the most important. Betelnut grows only on the foothills; lime is made of shells collected on the seashore. It was, and is, therefore common to exchange one for the other, as betelnut can be chewed only together with lime and betelnut chewing is as popular a social activity among the Orokaiva as it is throughout New Guinea and Indonesia. A peppery plant called *hingi* (piper betel) is always chewed with the other two ingredients. This again grows best on the hills, so that it is often exchanged with the betelnuts. The alluvial plains are in a poor bargaining position with regard to the betelnut complex as they produce none of the ingredients from their own land. It may be partly for this reason that they are accustomed to accumulating animal products and to using these as objects of trade.

By far the largest number of exchanges take place within a village, only a minority of transactions occurring between members of different village

TABLE II/7

ACQUISITION OF 'HAMBO' AND 'DI'
(*Source*: Crocombe and Hogbin 1963: 51; Rimoldi 1966: 80)

	Sivepe		*Inonda*	
	Hambo	*Di*	*Hambo*	*Di*
Inheritance, cash value ($)	48.40	17.60	18.60	5.70
Percentage	53%	40%	17%	12%
Cash Purchase, value ($)	9.30	4.50	36.10	2.00
Percentage	10%	10%	33%	4%
Bride price or other exchanges, value ($)	17.70	6.50	48.30	17.90
Percentage	19%	14%	44%	38%
Made or caught, value ($)	16.60	15.40	5.90	21.10
Percentage	18%	35%	5%	45%
Total, value: ($)	92.00	44.00	108.90	46.70

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

communities. When these do occur they are usually between neighbouring communities, as Waddell and Krinks have clearly demonstrated.[9] Intertribal trade, though small in volume, was politically important in that it provided a motive for terminating, or at least interrupting, warlike disputes. Intertribal trade was mainly in animal products, betelnut ingredients, feathers, *hambo*, and certain artifacts which were known to be of high quality in particular districts, e.g. Binandere pots were exchanged for Yega loincloths; only mountain people could supply cassowary feathers, and so on. Such exchanges may, under modern conditions, take the form of gift exchange, barter or sale but it may be doubted whether barter was ever as clearly institutionalised and differentiated from gift exchange among the Orokaiva as is the case in many other parts of Melanesia.

Money. With a few reservations, one could describe the role of money in the modern Orokaiva economy in much the same terms as Salisbury used for the Siane (1962). Salisbury distinguishes between three nexuses of activity. One is concerned with the production, distribution and consumption of subsistence goods, another with luxury goods and a third with ceremonial goods. The three nexuses involve not only categories of goods but also different types of social groups. Among the Orokaiva as among the Siane, money mainly enters the luxury and ceremonial nexuses. As with the Siane, the Orokaiva tend to store pound notes in treasure boxes, with *di* and *hambo*, and to keep them for special purposes which are often ceremonial (payment of brideprice, giving of feasts and church donations), but sometimes utilitarian (payment of taxes). Purchases in trade stores are mostly for luxury items, i.e. objects which the Orokaiva use only when there are guests to be entertained (tinned meat and fish, sugar, tea, batteries, cartridges, kerosene and tobacco, for example). Foods like rice, bread and flour are classifiable as luxuries among the hill people, as here they are used exclusively as guest foods. It is clear, however, from Waddell and Krinks' statistics that on the alluvial plains near Popondetta, rice and flour is bought in far greater quantity in months when taro is in short supply. These products are thus taking the place of subsidiary crops. People in this area prefer to make money from cash crops and services and to spend some of their cash on supplementary staples. The Siane, at the time of Salisbury's research, did not depend on cash as a source of staple food.

The use of money for capital goods merits some attention. Salisbury defines capital as a stock of goods, present before a productive act is performed, used in production and 'immobilised' from direct consumption while the act is in progress. Tools and implements are classed as 'durable instruments of production.' Houses and clothing, etc., are called consumer's capital because they 'produce' services for their owners while they exist. It is interesting to compare, in respect of monetary input, everyday consumer goods and the types of capital just mentioned. While the former have generally remained outside the cash economy, it is precisely in the sphere of capital goods that the traditional industries have been largely or wholly replaced by cash-purchased innovations such as trade, store clothing, agricultural, hunting and cooking implements. Totally new items – radios, flashlights, wrist watches, pressure lamps, sewing machines and guitars have been added. Locked suitcases, for the storage of valuables, are very popular, indicating that safe storage used to be a vexing problem.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 phase would last about two days. Villages where I made very brief visits never
123 passed beyond that stage, thus remaining in my memory as exceptionally endearing in their generosity. Before I understood the system, I harboured romantic notions of going to live in these villages. In the second phase there would be frantic *hoija*. Everyone brought gifts, asked for tobacco, salt, kerosene, and rides in the car. People appeared to be most hurt when I would not drive into Popondetta every day, and take the whole village with me. Whenever I was offered any gifts or service during this period there would be an immediate demand for some desired benefit.

436 After some weeks, this rather aggressive barrage diminished. I found myself
123 with a number of regular exchange partners who brought me what it was presumed I needed and who asked me for more or less standard return benefits.
431 Two sorts of partnership developed: one type of partner expected a return gift immediately upon bringing me his own; the second type made gifts for which he asked nothing – they were represented as gestures of pure affection. Yet in the future an occasion would arise when I would be asked for, or would spontaneously offer, something in return. But this second type of partnership was far more similar to the kind of gift exchange the village people had among their fellow villagers or close associates. As more and more people shifted from the first to the second type of partnership, I could see something like a genuine exchange network building up. People trusted me enough to allow me to be in their debt for a while. I was thus approaching the stage when I would be regarded as a desirable exhange partner, or, to put it in Orokaiva terms, as a man of some moral virtue. It seemed to me that it was on my behaviour as an exchange partner that my status would ultimately depend.

431 Most of the significant events in which the village was involved were also concerned with exchange. While marriages, deaths, feasts and initiations were all occasions for ritual and magic, the gifts always loomed largest in everyone's interests. It would usually take at least a year, but often far longer, to accumulate the gifts needed for such occasions. During this period members of the family, local clan branch or village (whichever was the donating group) would be constantly on the lookout for money or gift objects that could be stored up. People would go looking for jobs. They would keep unused some
● [628] clothing they had been given by a relative. Whenever a visit outside the village
[594] was contemplated, an essential part of the preparations was the getting together of the gifts that would have to be taken. Or when a visitor arrived, there was stealthy activity in the background to prepare the gifts without which he would not be allowed to leave. The size of the gifts would always be carefully planned, in accordance with the importance of the visit, the extent to which it was thought politic to do homage, and the availability of supplies. But the making of the gift would always be done in so casual a manner that one might easily believe it was totally spontaneous.

This manner must be affectionate and humble. But the wise man, in making a gift, puts his partner in his debt as much as possible without suffering undue expense, while at the same time enhancing his own status. At a later time, he will use his status as creditor to the best advantage. His concern is to foster a social relationship while at the same time seeking the acquisition of some scarce resource. Social and economic ends are pursued simultaneously. Thus Melanesian

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

628 In dealings between different villages, the use of a chain of mediators is extremely common. A will approach a fellow-villager B, who has connections in the other village; B will go to the other village and see C, his closest contact. C will then most likely go to D, one of the intimates of the person E with whom A desires to deal, and D will look for E. During the ensuing conversation, A and E will say very little, and it is the intermediaries who do most of the talking.

824 431 621 571 The intimate associate, often a neighbour, is thus extremely valuable, as he opens up a vista of alliances to which his partner has no easy access. A man's effective social network is therefore much wider than any network he could personally maintain by direct exchanges. Most of his effective alliances are vicarious and can be reached only through intermediaries.

The social network maintained by a sizeable circuit is therefore very considerable. It is greater than any solidarity group the Orokaiva could build up by maintaining their patrilineage bonds or by exclusively exploiting any other principle of kin group solidarity. The significance of gifts of cooked taro is that they maintain the intimate bonds needed to retain vicarious access to this network. Cooked taro mediates not only the exchange of intimate attachment, but also the exchange access to *alter's* private network of alliances.

If a village formed a perfect cluster, this kind of exchange could not happen, as all members share exclusively each other's most intimate alliances. Where a circuit structure prevails, a man's partner always has an intimate relationship he does not share, so that the man is dependent on his partner for access to that partner's distinctive exchange network. A society whose solidarity depends heavily on direct immediate exchange may have a rather wide network of alliances as long as it has strong institutional patterns of mediation. The importance of these patterns in Orokaiva society cannot, of course, be gauged by reference to taro exchanges alone, but it is now possible to inquire to what extent the model I have constructed on the basis of taro exchange applies in other areas of Orokaiva culture.

Clearly this model, if transposed to the level of marriage exchange, would include elements of both direct and generalised exchange. The cluster resembles direct exchange: the maintenance of relationships within the system depends entirely on benefits received from all households included in the system. On the other hand the chain has the circular form characteristic of generalised exchange. It includes households who receive no direct benefits from one another except the vicarious one of joint membership in the system. In some respects the chain, of course, differs fundamentally from a system of generalised exchange: the taro travels in both directions around the circle. But I have emphasised that taro is not strictly an object of exchange but of mediation. If there is a need to establish intimate social exchange between remote members of a chain, this will not be, as a general rule, for the exchange of identical benefits. Thus the benefits travelling in each direction along the chain may differ and may not belong to the same sphere of exchange.

While relationships within a cluster are very intimate, those within a large chain may require delicate diplomacy. Yet a chain does not, in my experience, contain members who are actively hostile to one another. The exchange of cooked taro has to to with the maintenance of friendly relations, and collapses if serious conflict arises. The management of serious conflict requires different

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sowai*) may enter its body. A pig inhabited by a *sowai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the 628 husband's sister, etc. to the wife's relatives. Feasts given on the occasion of 728 peace-making, or on other occasions where whole villages are invited can likewise 574 be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

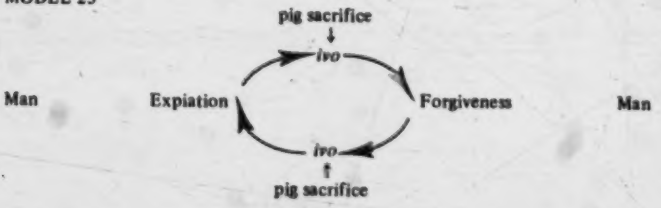
782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the [769 614] sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *two* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 621 [789] [754] crop failure at Hohorita would be explained as resulting from sorcery inflicted upon the people collectively by a sorcerer from one of the traditionally hostile villages near which the Sangara have been forced to live since the eruption. The sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 628 437 572 Yet it is clear, from the evidence presented here, that a feast does not serve to set up warm and affective relationships between collectivities: the host and guest communities, as such, do not actually eat together or converse with each other closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 628 778 While the evidence presented above is consistent with model 25, A that model does not account for all the facts under consideration. If we take a synchronic view of the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

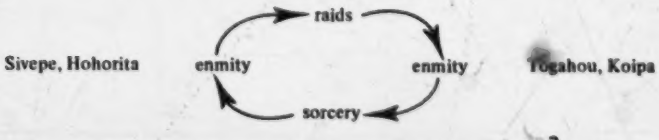
A [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The evidence presented in the previous section shows that we are in fact concerned not with one exchange cycle (i.e. model 25) but with two. The second cycle represents the exchange of sanctions which preceded the feast. Though our data with regard to both the Togahou-Sivepe and the Sangara-Koipa (Isivita) wars are rather fragmentary, we do know that there were a number of raids, the last of which are still known to informants today and date back no more than 60 years. Each side is reported to have raided the other; there were killings; there was cannibalism; women were abducted. Sangara admits having abducted Isivita women but denies that any of its own women were abducted; abductions between Sivepe and Togahou can be shown to have been mutual. The last killings were too long ago for me to be sure which side had made the last raid and which side had, in the finish, a favourable tally of killings. Sivepe and Hohorita both claimed to have come out on the winning side, but I had no opportunity to check the evidence with Togahou and Isivita. If we accept the Sivepe and Hohorita versions, both these villages were in the unpleasant position of having enemies who were still seeking revenge.

Due to the restraints of the *pax Australiana*, this revenge could not take the form of an armed raid, but sorcery was still a possible form of relaliation, as the Australian authorities could not easily detect this. Both Sivepe and Hohorita might therefore justifiably fear sorcery from their old enemies, supposing they wanted to even the scores. There is no evidence, to my knowledge, that either Togahou or Koipa had such ideas in mind, but whenever misfortunes happened to Sivepe people in Togahou, or to gardens in Hohorita, the thought of sorcery used by old enemies seemed reasonable to the Orokaiva. We may represent the exchange of sanctions, prior to the feasts, in the following diagram:

MODEL 26



In order to account for pig sacrifice, we require both model 25 (showing the social exchange achieved by the feast) and model 26 (showing the circumstances which made Hohorita into an 'offender' and Koipa into an 'offended' party). In addition, we need to explain why the groups involved decided to adopt new objects of exchange in their social relationship. Until recently, the two sides exchanged enmity which they mediated by various penalties such as raids and sorcery. At the time of the feast, however, we find the same two parties exchanging expiation and forgiveness. It is possible to invoke a number of historical contingencies to explain this change. Informants liked to tell me that the change was due to the effect of the *iji eha*: the fact that everybody was baptised and moving into a new age when old enmities should be forgotten. I

574 628 721 728 [754] A,B [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 628 721 728 could not help noticing the connection between the reconciliation and the simultaneous fear of sorcery to which I have already referred. But perhaps neither historical explanation is necessary.

It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1). The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 602 578 754 The model applies not only to inter-village relations but to all social relations in general, consanguineal and affinal relations included. Quarrels between consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58--Analyst]

[TEXT CONTINUED ON PAGE 157]

Figs

574
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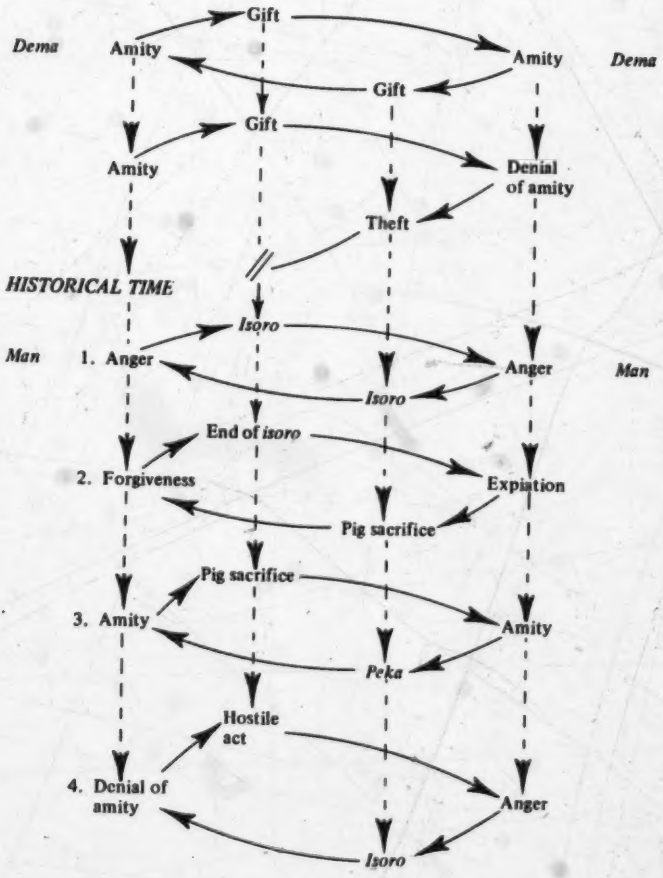
MODEL 27

PRIMAL TIME



604 receives certain essential medicines from his father (e.g. for hunting, for planting
789 taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation
301 to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*.
604 Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 When I asked informants about the significance of *otohu*, their replies were in
301 general very close to what Williams had reported: people respect their *otohu* as
597 the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big.
[778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 The second ritual actor about whom I obtained additional data was the
881 *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out
[266] among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 *Aguma* were usually not from the same village as the initiands. They were
881 generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite
628 an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The
[754] total list of *aguma*-villages as given to me had a striking resemblance to another

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20) we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

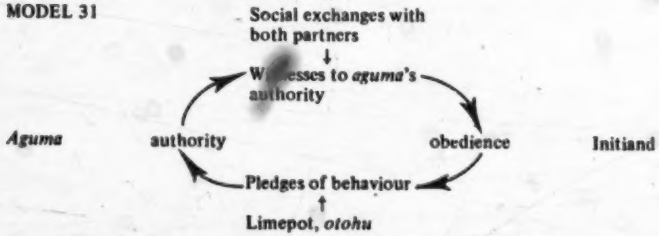
A [See p. 135, Cat. 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

they would always add credibility to the words of the *aguma*, as their authority would not be questioned by the initiand.

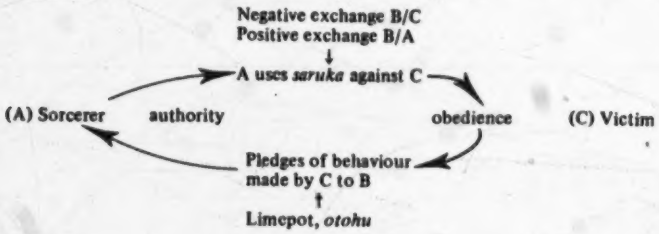
The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



If the initiate should later break a pledge, the wronged person may call upon a sorcerer whose position I have suggested to be symbolically equivalent to that of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



121 that studied at Inonda - was the relationship between localized
125 landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

125 The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close
[614] kinsmen dependent on him (see Genealogy on p.52 for links between households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

121 Our observations at Sivepe were supplemented by less systematic
[124] interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[829] [1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

● 628 [3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

628 701 166 There were ordinarily no persons who could command the allegiance of the tribe as a whole, nor was there any status with authority to effect the settlement of disputes between different subgroups or their individual members. Sometimes persistent intratribal conflicts led to short-term migration or to a splinter-group's secession from the tribe. However, these disturbances were very minor in comparison with the 'flight, dispersal and migration' in general resulting from incessant intertribal[1] feuds (see p.35).[2]

701 Kinship and local affiliation together were the basic principles by which subgroups of the raiding party seem to have been drawn up during attack and on which leaders[2] within the party based their rights to command specific combatants.

721 728 Retaliation was as important a motive for isoro as was individual and group prestige. It was 'rare if not impossible' for tribes to settle hostilities amicably by compensation, exchange of hostages or other means (Williams 1930:166, 170 ff., 311 ff.).

721 Conquering groups operating from within their established territorial frontiers seem seldom to have set out with the express aim of acquiring new land for settlement or even to have used the vacated land when they forced their enemies to withdraw.[3] Nevertheless, the Aiga people (mostly the Timbariundi, i.e., wanderers), for instance, are known to have migrated to their present territory by expelling another tribe and settling on their land.

The high value of the land on the volcanic slopes occupied by the people called 'Periho' and 'Wasida' (by Plant and Williams,

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1 'Intertribal', 'interclan', etc., are terms which we apply to relationships between any - i.e., not necessarily all - representatives of the units in question.

2 In the course of a raid, some of these leaders would assume the role of isoro ambo jigari, a man who should rally the slowest of his company in attack and protect the stragglers during withdrawal; the other class of leader was known as isoro kiti jigari, that is, a warrior who ordinarily directs raiding groups from in front and takes the initiative in tactical decisions. Kiti jigari is sometimes a term for leaders in ordinary village activities (kiti, the first, foremost; jigari, one who directs and controls an enterprise); cf. pp.51-3. See also Williams (W.23) who was told that in pre-contact times a renowned member of Sarahu clan would lead from behind in attacks by men of the Jegasi-Sarahu villages (of the 'Wasida' tribe).

3 As the Sangara did to the Divinikovari, for instance (Williams O.12).

A, [See Category 721, p. 35--Analyst]

721 see p.6) and by the Sangara would have been common knowledge but the neighbouring tribes on the plains were well endowed with land. Land shortage and territorial ambitions were seldom likely to have been sufficient to induce warriors to conquer new lands from traditional enemies.[1]

628 721 Williams (1930:151) says that the Hunjovarehu (including the people of Divinikovari) and the 'Wasida' people to their south are 2 subdivisions of 1 tribe but in other contexts (1930:166) he mentions that these 2 groups carried out organized raids on each other's territory; these were frequent and were characteristic only of intertribal feuds. He refers also to the 'Wasida' as traditional enemies of the Divinikovari 'tribe' (O.9). Monckton too (Territory of Papua 1904-5:36) had reported that the 'Wasida' used frequently to raid ' the low-lying villages of the Kumusi' including the Nimanakwari (or Divinikovari) 'tribe'; indeed, the ancestors of some of the men at Sivepe were killed while fighting the Divinikovari, Togahau and Asigi people to the north. 'The people known as Hunjovarehu' and 'the people of the Periho group', according to Plant, should not be regarded as members of the same tribe (1951: Appendix 4). Informants said that their ancestors were not involved in the isoro which the Wasida villagers fought with the Orokaiva of Sairope - and at times with those at Baropi (Wairope) - and with the people of the Managalas Mountains to the south (see Reay 1953:118; Williams W.23).

Our reason for arguing that all the mountain Orokaiva - the Sangara as well as the Periho (i.e., Wasida) - constituted 1 tribe, is that the basic criterion for identifying a tribe as a distinct unit is its members' joint political activity, as Williams says (1925:406; 1930:156) - the 'almost perpetual state of war with its neighbours'.

619 721 634 In feuds with neighbouring Orokaiva of tribes to the north, members of the Awala District had regular alliances with people as distant as Koropata to the west and the Sangara to the east. However, on no occasion known to us did the mountain Orokaiva as a whole combine in defence or attack en masse. It is even unlikely that the Periho 'welded themselves into a solid group', which Plant (1951:3) claims 'was based on political necessity', defended a recognized common boundary and combined to conduct isoro as a unit.[2] At the time of pacification they alone must

[1] This is true of almost all New Guinea societies, whatever the extent of their political organization: exceptions include Chimbu and the Mae Enga (see Brown and Brookfield 1959:42).

[2] Plant's inclusion of the Wairopi and Sairopi districts in the tribe (see p.6) is hard to reconcile with statements by Williams (W.23) and by Reay (1953:118).

474 241 of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Nixon Kairembora, the Yega 'land custodian', [628] between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

[439] Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were [454] grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[423] [464] [2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[768] [3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

166 people were shifted about two miles eastward to a site adjacent to the wartime Inonda airstrip. People of several other villages (including Ajoro, the home of the Tandai'undi) were also resettled in the same area for safety. We will refer to this as Inonda II. During 1952, when the danger of further eruption was considered to be over, they shifted their village to Inonda III which was approximately a mile closer to their planting lands. In 1956 the people who had been temporarily resettled for safety at Inonda moved back to their respective villages. The local people then moved to their present site, Inonda IV, which is midway between their food gardens and their coffee plots.

Demographic and social structure

614 At the time of our survey, of a total population of 45 living in 8 households, 23 were members of the Andiriha sub-clan and 5 members of the Jego'undi sub-clan. The remaining 17 belonged to other clans. Of these 17, 8 were wives of members of the Inonda sub-clans and another 7 were relatives of these wives. The remaining 2 were the children of the sister of an Andiriha man who had come with their mother on a visit.(1) The number of persons in Inonda households ranged from 3 to 10 with an average of 5.6. There were 4 nuclear, 1 polygamous and 3 extended families.

The term 'clan' will be used to refer to the large patrilineal Orokaiva descent groups, each of which claims descent from a common ancestor but cannot trace it in fact. Each clan has a common name and a common plant emblem or erahu.(2) The clan name (frequently that of the founding ances-

(1) Of the 17 persons who were not members of the Inonda sub-clans, 4 came from the Kongaria clan of Urio village and 7 from the Oremba'undi and other clans of Hoboritu village. This reflects the marriage links with these villages as six of the nine wives came from Urio or Hoboritu. Marriage links with Urio are said to have been maintained for more than two generations, but those with Hoboritu began in the last decade.

[582] [628]

(2) Sometimes known as lavahu or lavatu. For a detailed description of the nature and function of the erahu see Williams, 1925. The erahu of the Andiriha clan is tinari, any plant tied in a particular knot.

things from any area of second growth it appeared from our observations that people seldom took wood from second growth land other than areas which they themselves had previously planted. Permissive members of the sub-clans exercise the same hunting and foraging rights as primary members.

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

On rare occasions, when they have inadequate meat for a forthcoming feast which involves the whole clan, clansmen from other villages come to Inonda and make a formal request for permission to hunt there. They remain for several days and hunt with the help of the local people, smoke the meat and then return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

Only three Inonda men exercise hunting rights outside Inonda land. The first two are the members of the Jego'undi sub-clan. They were given hunting rights to a piece of land which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

423 transfer at a feast shortly after the grandson finished his school-
614 ing. Along with the rights he was given the obligation to look
224 after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

423 All Inonda people, along with all members of the
221 Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the
● 628 purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

423 Fishing rights: For the purpose of fishing rights,
226 the Girua river is divided into sections, each of which is
621 associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

423 The Inonda portion of the river is held jointly by the
226 Andiriha and Jego'undi sub-clans and any primary member of
614 either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Hongi to Agenahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [628] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Wasata, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

121 Under this heading there are three aspects to consider: the
128 participants, the procedure and attitudes towards the necessity of relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this
657 was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relationships and social relationships outside the village. The first of [578] them, in 1952, seems to have been precipitated by a quarrel between [628] the Timuma clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

361 These shifts in village sites are accounted for by almost a 657 superfluity of reasons. Rimoldi was told of almost all the shifts he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths 361 attributed to sorcery and because of quarrels between neighboring villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his ghost. The population of this village shifted to nearby Hohorita, [764] a move which was in any case favoured by the government. A reason [775] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the cooparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

571 The social universe of the different families diverged markedly from one another; the small number of extended families composing a minor patrilineage (marked by the possession of a common plant emblem) would share each other's social network and obligations to a large extent, but the same could not even be said for clansmen of different plant emblem groups. In such a culture, the term "outsider" must be situationally defined. For certain situations, only those who share a clan emblem are insiders; for other situations, only clansmen; for others, only residents of the same village, while I can also think of situations where the group of "insiders" embraces a much larger group. We may list the following set of widening concentric circles, as useful for the present study:

(a) Closely allied villages (especially Sivepa, Carombi, Binduta)
(b) The Sasembata district: defined as comprising Sasembata parish or the three Sasembata local government council wards. This is an area close to the road from Kendata to Boru, and never more than an hour's walking distance away from it.
(c) The wider solidarity group to which Williams and several other earlier authors have referred as the "Waseta tribe" (see map)
(d) The indigenous population of Ilimo camp
(e) The "Orokaiva" people
(f) Papuans and New Guineans other than Orokaiva, without special administrative roles
(g) Papuans and New Guineans with offices in the administration, and the Church
(h) Chinese traders
(i) Persons referred to as "taupa" (white man)
(k) The Americans (a special, and by this time somewhat mythical category)
(l) White men believed to be dead ancestors who have returned

For the purpose of this study, I have avoided systematic reference to social structure and emphasized residence rather than kinship. The Inonda pattern resembles, in general, that of Sivepa, except that the sparseness of the population makes the immediate [628] social environment somewhat simpler. Sivepa has significant relations of one sort or another with dozens of villages; Inonda's social universe hardly comprises more than half a dozen, and small ones at that. On the maps Inonda is shown as part of the Sauaha "tribe," but Crocombe and Hogbin treat Sauaha as simply another clan in the vicinity and it is likely that the larger military grouping of which they formed part were Monckton's dreaded Dobuduru.

121 It is our task to consider changes in the patterns of contact with each of these 11 categories of outsiders (as between

121 January, 1951 and 1967), both in Sivepa and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

626 The concept of a "closely allied" village is a difficult
[621] one: it is not often, in these days of peace, that a village
[571] really acts as a corporate unit, so that contacts between villages tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved
[764] village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Hohorita, with 400 inhabitants, when an old man died at Sombou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepa, Inonda,

628 Hohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepe people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro A and Musou, while Ajoro mentioned Inonda and Hohota (see Map VIII). A

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepe would be: Sasembata, Garombi, Awala, Hamburata, Korogombata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepe. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepe village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepe informants had first or second degree consanguines in Kongohambo, and only one Sivepe girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
[582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 631 731 [794] [797] together, the church council, with representatives from all the villages, deliberated together. This cooperation was a gradual development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions for formal cooperation between villages belonging to the same ward. It was characteristic of both the church and the government council organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries [192] was a novel one (see Map IX).[A] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoge, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

628 423 578 These generalizations will be documented below; my task at present is to consider contacts between Sivepe and closely allied villages arising out of the eruption and relocation. Here inter-village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and [685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

423 613 [621] Crocombe and Hogbin provide an excellent example of the ambiguity of Orokaiva land rights. After wars with the Sangara, both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sembogo. Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda [428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Humuni in a later chapter.

628 423 The closely allied villages, therefore, are not only a source of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

[578] [574] [754]

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepe and Isoge or Kendata than with Garombi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepe are now expected to cooperate in both church and [178] local government council activities. This is definitely a somewhat novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

797 When the Sasembata mission station was built in 1952-1953, 794 all the villages contained in the parish collaborated. Miss White's 628 diaries show how this cooperation was organised. Miss White, who was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garombi and Isoge would finish the hospital ward, Sivepe and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials 628 and in 1966, while I was in the field, the time had come to pull it down and renew it. The Australian teacher in charge of the [759] station was unable to organise this work. There was, however, a Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garombi, Sivepe, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous villages. I collected the kindreds, up to two degrees removed, of 51 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9^A shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; meeting them less than once a year would not be quite right. Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

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Section 4: Other Contacts with the Waseta "Tribe"

While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matriline, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Isivita villages and with Togahou. The links with Soroputa and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Awala (three miles from Sivepe) also has a special explanation beyond common clanship: Sivepe people were dependent upon Awala clay for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

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A [See Cat. 116, p. 214--Analyst]

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are [631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land 423 boundaries with Soroputa and Agenahambo; these boundaries lay North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo [659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, Gorombo, Binduta and Isoge, the delegation that sent to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepe where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepe men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepe and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepe in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting 619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated [731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practices what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of [582] residence. Within this area, marriages are contracted, cannibalistic [721] raids do not occur and fights tend to involve comparatively little [266] bloodshed. The circle of "intra-group morality" varies for every

village. Williams, in marking out his "Waseta tribe," with Waseta at the centre, excluded the Soroputa people from this "tribe" (vide Map X) A but "intra-group morality" definitely prevailed between Soroputa and neighboring Sivepa. There never were cannibalistic raids between these two villages, which included each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more closely together than formerly. I obtained from a number of Sivepa men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepa I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

If "tribal" solidarity was dubious before the Ilimo camp period, (the atmosphere of an evacuation camp was certainly not a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

The government is actively attempting to create among the Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepa and Soroputa or Agenahambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs. Williams' tribal map shows Inonda as Sauahs; Crocombe and Hogbin
[114] describe Sauahs, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepe, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepe man married 40 or more years ago, and the visit was from that man's children. Several Sivepe persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garoubi where they
[424] married; the third woman's son came to live in Sivepe. Descendants of the Sivepe man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[659] When the members of the "Waseta tribe" were accommodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[659] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairope, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new
administrative centre of the Northern District, has about 4,000
[162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

CHAPTER IV: Contacts with Congeners

Section 1: Kind and Frequency of Contact

731 628 Because of the circumstances of relocation of the Orokaiva, one cannot generally study relationships between persons who were resettled and persons who stayed in their old locations; the old locations were in general restricted areas which remained uninhabited. For a short period, the population of Sivepe was split into one half resettled on their old lands and one half resettled at Awala. If Awala had offered a viable alternative to residence at Sivepe, an interesting interrelation between the two groups might have developed. As it was, the Seho people who stayed with their clansmen at Awala, established gardens at Sivepe and soon preferred to return. Likewise the Sewa people who escaped to Inonda chose the return to their own lands, even though there was no shortage of land at Inonda. While the Seho clan group stayed at Awala, they made frequent visits to Sivepe, but their children went to school at Awala. Once Old Sivepe was built and gardens were established, the Sivepe people made a large feast for Awala, to express gratitude for the hospitality received. (1954)

Section 2: Encouragement of Contacts

731 654 From the first week of evacuation, both government officers and village constables and other community leaders were well aware of the homesickness of the people and their desire to return as often as possible to the villages they had left behind. The camp authorities at Ilimo were only too well aware of the profound shock and despondency of the people and were ready to allow brief expeditions to home villages as long as this could be done without creating fresh conflicts. Hence a policy was developed of permitting return for short visits under supervision of village constables and involving only a limited number of people. Men only were allowed to go home, as the authorities were afraid (not without reason) that if families went back to the villages it would be hard to get them to return to camp out of the restricted areas. In case of further eruptions, the administration of the camps would naturally be blamed. It seems very likely that the initiative for the organising of these expeditions came from the community leaders. Village constables would request permission from Mr. Kaad, mostly because people put pressure on the village constables.

654 After resettlement in Awala and other villages, the government
731 made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 In earlier chapters, I have already drawn attention to the
823 widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child [794] is, even now, performed in a family garden. Separation from the family land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 Naturally, in the circumstances, people did not feel any pride
77 or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe [438] was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garembi which still [626] had its pigs. During the bargaining, a Garembi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Garembi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

657 731 423 245 It is a ticklish question whether this rule similarly applies to coffee trees which differ from the traditional kind of trees in two ways: first, in that they occupy the whole of a piece of land and not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 731 423 578 628 After planting their coffee at Mumuni, the Dapari people began to depend for their subsistence gardens on land they owned in their own natal district, which was an hour or so from Mumuni. All the Dapari people, except for the Jegase clan group of Dapari, went back to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.

The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
group has solid land rights close to the village. Thus, the resettle-
[578 ment of a group of Garombi people in Sivepe in 1966 may well be stable
[628 because these people own land within a one-mile radius from Sivepe.
But the resettlement of Dapari people in Mumuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Mumuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepe people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Mumuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to
agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
657 of their own. This process started almost at once and continued for
more than five years. I have already stated that in Sivepe this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepe, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,869, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepe could give only limited
help in the way of lending gardening lands and marauding pigs were

794 and sang hymns and gossiped. Once a week, or at least as many weeks
575 as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

[554] The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

794 The mission women now withdrew from the club and asked for their
575 membership fees back, which they were given. It appeared that their
578 quarrel was not so much with Sivepe but with the Sasembata village
● 628 women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[962] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

535 About three months before our departure from Sivepe, a mission
[123] teacher told me that his wife intended to teach Sivepe women a coastal
[199] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

CHAPTER VIII: Selection of Emigrants

731 At the time of the eruption, the whole of the population fled from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

621 657 Recruitment to these villages was therefore non-selective and by government order. The amount of land available at the new location and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Kaad that they wished to form a village together, Mr. Kaad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

361 [628] When self-selection of resettlement sites occurred, the following were among the reasons for choice, as is demonstrated from evidence at Sivepe and Hohorita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hohorita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepe, we witnessed the exodus from Awala, because of land problems; the exodus from Pemba, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garombi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garombi, the links are far more complex and will be discussed under the heading of "Internal Influences."

621 The village group was the organisational unit of settlement. No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.[A] There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called araha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isapa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bande, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.[B] The long side of the rectangle faces the araha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivepe, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[177] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the araha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
731 was one da with 48 people and the village stayed together, [illegible] a slight
decline in population (to 45 in 1962 and 41 in 1967) and a [illegible]line in
628 the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
abandoned now. Although these two da were less than a hundred yards
628 apart, they were still two socially distinct units. It sometimes
happens, as in the case of Hohovita, to which I shall return, that
two such contiguous villages are later joined together into a single
one, but this is a deliberate act, involving the slashing down of the
intervening brushwood and, ideally, also the removal of houses which
would run through the centre of the combined village. If Sewa people
had taken up permanent residence in Inonda, such fusion would have
occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
361 further than about 1948 when the village Pamba was built, combining
an older Sive and a now defunct village Pusahambo. The census list
[162] current at the time of the eruption still shows the population of the
two villages separately, though in fact they had already fused.
(Sive 58, Pusahambo 41) I do not know how many residential units there
were then, but in Old Sivepe, in 1962, 23 were counted, plus one
belonging to the anthropologist. At that time, the population was
120. When I arrived in Sivepe, the new village was only partly
completed. Some people lived in new houses; some had not yet built
or finished their new houses, but had shifted their old houses from
the old to the new village. Others again were still domiciled in the
old village, but had declared their intention to start building in the
new one "soon." At the time of my arrival, six of the houses in the
old village were still inhabited; nine months later, this number had
dropped to three, two of the houses being inhabited by widows living
alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number
of the village pigs were still being kept in the old village (these
animals being rigorously barred from the new one) but by the end of
my stay, these pigs had all gone to the bush. New Sivepe, at that
time, had 25 dwelling units, plus the one rapidly nearing completion.
The total number of dwelling units included in the study (28) accommodated
137 people. There was occasional discussion of further increments in
the population, as families from Garombi were considering moving in
and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the
village plan that was regarded as ideal. In Old Sivepe 18 out of 23
houses were arranged around the araha in standard fashion, while another
five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The
land on which Old Sivepe was built was lent by three individuals from
different kinship groups; residents chose their house site irrespective
[423] of their possible ownership of land on the village site. On the other
hand, the five houses built outside the village proper were all on
land owned by the residents. Though some of these houses were as
much as four chains away from the village proper, they were still

CHAPTER III: Degree of Homogeneity of the Community

621 To what extent do we find ethnic diversity in this population? The answer to this question depends very much on our concept of homogeneity. If we look merely at the diversity of clans and of places of birth of present community members, as stated by themselves, a remarkably homogeneous picture may be presented for Sivepe: out of 28 male adults actually resident in Sivepe, 26 were born within two miles of the present village site; the other two were born in Soroputa, which [591] is hardly more than four miles away. Both the Soroputa men had married [582] Sivepe women; they were the only two families that were overtly uxorilocal. Although the rest of the families were all overtly virilocal, only seven out of 33 adult Sivepe females came from a village more than two miles away from the present village site. None of these seven were over 45 years of age; all but two were under 35 years old. Furthermore, six of these seven women married into the Jegase clan. Only one of them married into Seho; in this case, the woman had married a Jegase man, become divorced, and then remarried into Seho.

621 The traditional pattern was for a man to marry a woman from
582 a nearby village; the present generation of Seho householders had all followed this tradition. The more modern pattern is to choose women from further afield; this had become a frequent practise for the younger Jegase men who tended to choose wives from villages two to four (but never more) miles from Sivepe. Sorovi had followed the traditional pattern, without one exception. From this viewpoint, homogeneity was extreme.

563 In Inonda, two of the nine adult male inhabitants were born
169 outside the district: one came from Arafa, in the Managalasi district and was captured by Inonda people in war as an infant. This fact was at first concealed from me and only elicited when inconsistencies arose. If one asks his clan name, he answers it is Andiriha. He has two sons living in the village, both married. The other immigrant is a Sangara man who was a mission teacher at Sewa before the eruption, came to Inonda with the other Sewa people, and did not return to Sewa when the others went back to their old village. His two daughters both married Inonda men.

621 Of the ten adult women living at Inonda, four came from the
628 Sangara tribe, one from Kendata in the Sasembata district and the others [582] from villages in the vicinity of Inonda. The term "vicinity" has a slightly different meaning in the Inonda district than in the far more densely populated area around Sivepe. The villages from which Inonda women tended to come were three or four miles away rather than just one mile. To this greater geographical distance corresponded a greater

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepa, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepa, even only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[723] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalties are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [199] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hoborita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [651] district to amalgamate villages. A number of the people now living in Hoborita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hoborita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Soubou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Soubou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hoborita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since the eruption form a rather tight cluster, quite different from the ●628 intersecting circle pattern I described for the Sasembata district. When a person in Soubou died, the whole of Hoborita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hoborita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hoborita while Soubou, with the assistance of Kakita, entertained the Uhuru'undi

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

758 759 [653] During the time I was at Hohorita, there was no local medical service because the officer appointed by the Health Department was a Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

653 In Sivepe, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the [731] culture heroes. When I did, in a very innocent way, express my

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23 Mount Lamington

TABLE 9

CONSANGUINEAL LINKAGES BETWEEN 51
SIVEPE INFORMANTS AND OTHER VILLAGES,
CLASSIFIED BY DEGREE OF NETWORK DENSITY

Principle of Classification: Villages are classified according to the number of informants who have kindred (no more than two degrees removed) originating there. Thus Class A comprises those villages mentioned by one (and no more than one) informant as the birthplace of members of his/her kindred. Class B comprises villages so mentioned by two (and no more than two) informants, Class C between 3 and 5, Class D between 6 and 10. Class E comprises those villages mentioned by more than 10 informants as the birthplace of members of their kindreds. When I speak of "one consanguineal linkage between one informant and another village," I leave out of account how many of my informant's consanguines were born in that other village--it might be one or several dozen.

Density of Network By Classes	Number of Villages In Each Class	Number of Consanguineal Linkages Between Informants and Other Villages
Class A	36	36
Class B	11	22
Class C	19	74
Class D	5	40
Class E	5	61
TOTAL	76	233

629 166

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely 62 more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are (614) reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The 592 generally monogamous family units are under the "immediate 62 authority of the father," while the affairs of the local living 622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, 422 usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in [154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually [569] hostile and resistant to whites. Women were often seen ac- [186] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that [628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were [728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes 361 as the result of a "quarrel and the fear of retaliatory magic," 241 but more often it was "simply the lax method of horticulture [518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." 361 Another factor could have been food scarcities which tend 261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow 731 zone, and people may have to scatter out to live on wild 165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica- 178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly [749] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influ- 361 ence. Over against this greater dispersal, the people have 571

[p 18-B]

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigone*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

(1965) distinction between generalized and balanced reciprocity may be useful. Let us note, however, that the relationship between the fictional *apa/eambo* is one where kin distance is infinite (they are not kinsmen) so that according to Sahlins' model, balanced reciprocity should apply. Instead, the norm is generalized reciprocity, as one gives all one has, be it much or little. The crux of the *apa/eambo* relationship, real or fictional, is that property is pooled and belongs to all members of the group equally. When brothers live together, or when they hold land in common and thus are able to live together, such pooling occurs perpetually. Hereditary friends meet rarely – frequently not even as often as once a year. Thus, their ability to use the pool, or contribute to it, is limited. But the manner of giving emphasizes an ideology that is a pooling relationship. Hence, the return visit is obligatory for the host: the gifts given with the first visit express symbolically a statement by partner A to B: "you are my brother." But for the relationship to persist, B must be able to reply in the same idiom: "you, A, are my brother," and he can make this statement only by presenting gifts in his own village.

The ambiguity is now clear: the hereditary friendship relation is one between partners who act out the role of brothers. It is possible to show this ambiguity on the formal level of kinship terminology by inquiring into the term of reference and address used for the wife of an hereditary friend. By the rules of the kinship system, she should be called *hovatu*, but she is in fact called *du*, as the restraints of the affinal relationship are considered too irksome.

Changes in Group Membership Status

From what has been said above, it is clear that the principle of generalized reciprocity holds with regard to the equivalence of gifts between friends. The mythological charter explicity states that a small gift in times of shortage, is to be deemed equivalent to a large gift in times of abundance. On the other hand, the principle of balanced reciprocity holds concerning the pattern of exchanges, in that every visit is followed by a return visit, at the end of which balance is expected to be achieved.

Let us consider the development of friendship relations. In the course of a lifetime, a person meets many strangers of whom the congenial ones may become *otavo* or fictional *simbo*. He will be especially attracted to a few with whom he establishes a permanent kin-like bond, either on the *apa/eambo* or the *simbo* model. Occasions for such encounters may be feasts between previously hostile groups so that the groups of which the hereditary friends are members may not share the friendly feelings of the individuals who have become *otavo*, *namei*, *jao*, *simbo*, and the like. Thus, inter-community conflicts may come and go and the bond may continue over the generations. Far from this being a betrayal of group loyalties, the friendship

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

bond is respected by both sides and utilized for purposes of mediation. The friend is not an ally in war, but his person is sacrosanct.

Hereditary friendships are more likely to fade naturally and quietly than to die violently in a quarrel. On the other hand, they may become converted to affinal bonds or lead to co-residence, in which case an entirely new pattern arises. It is possible for migrants into a village to have no bonds other than those of hereditary friendship with their chosen hosts. But once co-residence is established, the new arrivals soon become involved in intra-community politics along the lines suggested by Watson (1970): one of the existing factions woos the new arrivals to its side. A strong bond soon develops between the immigrants and the faction into which they are drawn. Intermarriage is likely to follow. A study of the composition of Orokaiva clans (see Schwimmer, 1970a) suggests that they are most often composed of a number of groups differing in local origin. These groups did not generally bear the same clan name prior to settlement, and sometimes they had no relatives at all in the village where they settled. (Still, it would be more usual for at least some members of the migrating group to have connections in the new place.) In the case of the Sorovi people who migrated to Sivepe in 1966, these connections were often of the fictive (friendship) *apa/eambo* type.

Apa/eambo and *jao* relationships are inherited bilaterally; that is, passed on to both the sons and the daughters of the partners. The only restriction is that both members of the partnership must be of one sex; hence if partner A has only sons and partner B has only daughters, the partnership will die. Similarly, it may die if the age differences in any generation are too great. Even so, under bilateral succession, one would expect that people would recognize far more of these partnerships than in fact they do.

We don't know for how many generations they actually last. Friendship bonds are remembered exactly as long as genealogical bonds -- for two generations senior to ego -- but some may in fact be more ancient. Friendship bonds are most likely to be kept up when partner A has no kinsmen in partner B's village. Thus, they fill gaps in the network. They are put under strain when hostility develops between the two villages, although even then the friendship bond often survives.

Friendship Obligations and their Ideological Basis

(a) *Apa/eambo* or *namei*. The ceremony of receiving a guest friend differs in some ritual features from the hospitality shown to affines and to consanguineal competitive exchange partners. When the latter pay formal visits, gifts are made on arrival. Sometimes, the guest does not sit down or allow his string bag to touch the ground until he is satisfied with the gifts offered. This is especially true if the partners are to reconcile a quarrel. Amicability begins after business is concluded. The gifts, in such cases, are made by the

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But recruitment to this status is not restricted to specific categories; any two people can become *namei*. These bonds provide some measure of control over the flow of information, and a prudent man will establish them in places where such control is important. They serve to set up channels of information where they are lacking in the kinship-generated network. Unfortunately, neither my Orokaiva data nor any other Oceanic data provide much specific information on the channels which these relationships open up, although Burridge has referred to Tangu friendship as providing "a form of communication." On this basis, a friend's obligations would be to spread the renown of your friend, speak in his favour if others criticize him, advise him of anything that is being undertaken against him, and so forth. In practice, anthropologists have often overlooked such obligations towards their friends in the field.

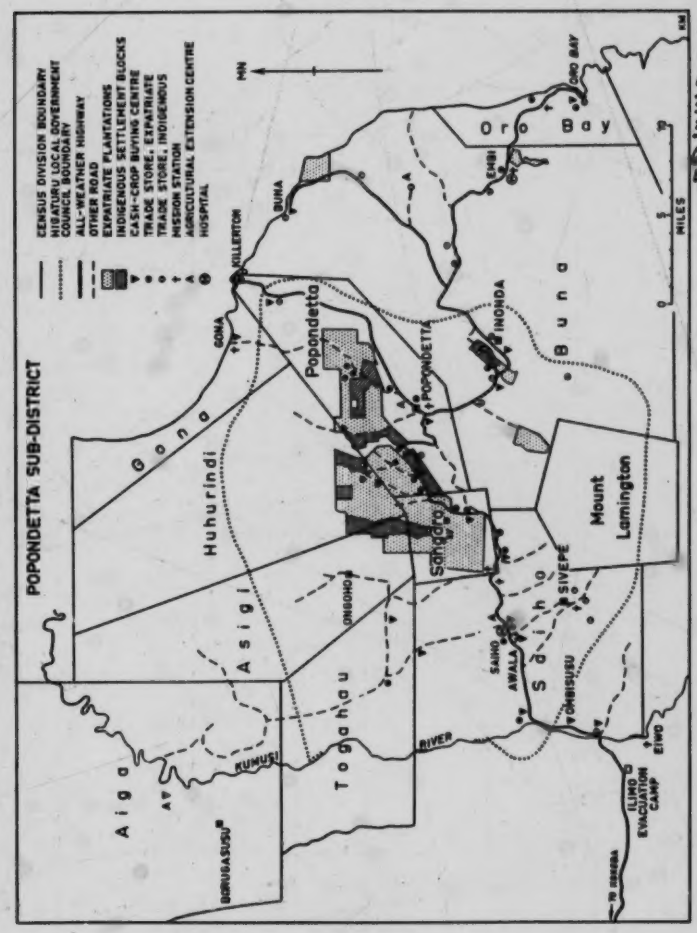
(b) *Jao*. An important source of hereditary friendships, perhaps the most important of all, are *jao* relationships: friendships between unrelated women. A woman uses the term *jao* to address the wife of any *hovatu* (brother-in-law) when these two women are unrelated. A consequence of the rule of virilocal marriage is that the married women in a village tend to be unrelated to each other, having been drawn from a variety of villages in which various families had exchanged relations. When these women become friendly with each other, they call each other *jao*. Similar friendships are also common between women of adjacent villages even when their husbands are unrelated.

As such relationships are hereditary bilaterally, they may lead to a *namei* or *apa/eambo* relation between the sons of these women in the second generation, thus linking families between which no friendship existed previously. Moreover, if the daughters of the *jao* become separated from each other after marriage, they often continue their own *jao* relation, and visit each other's villages. They receive gifts on these visits, though on a more modest scale than the men do (as far as I could see, only vegetable produce was given). At times, they may stay for a few days before they return. It seems to be the Orokaiva wife's way of having a break from the domestic round.

Unfortunately, a male anthropologist cannot plumb the mysteries of this relationship, as informants refuse to discuss it with any male, including their own husbands. A female anthropologist might find fascinating data; my only significant discovery was that women attach great weight to the institution, that it has secret aspects, and that it definitely binds males of the next generation. Married women certainly feel the lack of co-resident consanguines and the establishment of *jao* visits is clearly a substitute.

If two unrelated young women of district A are *jao* and marry in villages B and C, this leads to inter-village links, not only between A and B, and A and C (links directly resulting from the affinal relationships), but also between B and C since the *jao* continue to visit each other, as do their sons. Hence, the *jao* institution is an important source of friendship linkages.

9: Kearney P-5 (1963) 1966 OJ23 Orokaiva OJ23



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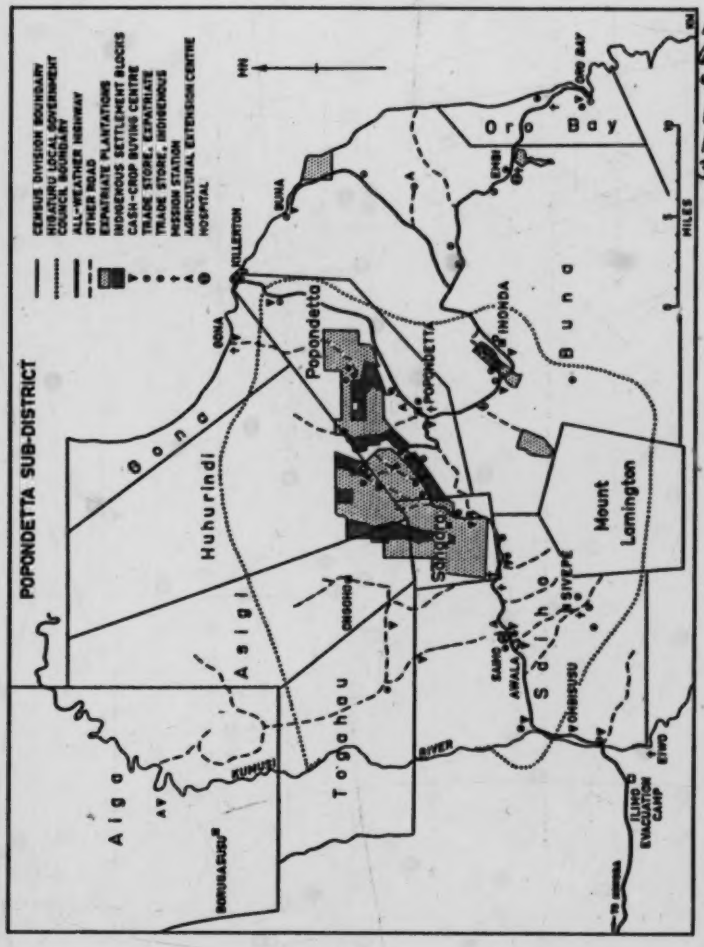
[p.44]

11: Dakeyne K-5 (1962-1964) 1966 QJ23 Orokaiva QJ23
Yega



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Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods.

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621] [614] Ombi and Tara contain two clans, Musu and Kuei. The Musu clan is concentrated in Ombi village and the Kuei in Tara. However, Ombi has three Kuei households and Tara has one Musu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 49ff.--Analyst]

628 Vohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepe people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro[A] and Musou, while Ajoro mentioned Inonda and Hohota (see Map VIII).[A]

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepe would be: Sasembata, Garombi, Awala, Hamburata, Korogombata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepe. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepe village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepe informants had first or second degree consanguines in Kongohambo, and only one Sivepe girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
[582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
● 631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

together, the church council, with representatives from all the villages, deliberated together. This cooperation was a gradual development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions for formal cooperation between villages belonging to the same ward. It was characteristic of both the church and the government council organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries was a novel one (see Map IX).[A] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoga, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

These generalizations will be documented below; my task at present is to consider contacts between Sivepe and closely allied villages arising out of the eruption and relocation. Here inter-village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

Crocombe and Hogbin provide an excellent example of the ambiguity of Orokaiva land rights. After wars with the Sangara, both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo. Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are [631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land 423 boundaries with Soroputa and Agenahambo; these boundaries lay North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo [659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, Gorombo, Binduta and Isoge, the delegation that sent to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garombi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garombi, but was non-committal over the other two, as he saw Isoge and Binduta were [276] insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages. [191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Motu), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled at negotiating the difficult roads of the Northern District, have
177 the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

C2| obscure any important differences in structure and our historical
3C| data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
of Sivepe now has a population of 120 and is linked with Binduta,
●[632] several hundred yards away, and with Mahihita half a mile away, to
form a unit in Administration censuses. The 3 villages, together
with Awala No.2,[1] form a local government council electorate.

13| Sivepe is situated on the western bank of the Sohu River, a
49| tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of
Mt Lamington. It is on a jeep road leading from Kendata, high on
the Mt Lamington slopes, to Awala, which lies 3½ miles north of
Sivepe on the Kokoda-Popondetta road. The minor road was con-
structed in about 1944 following the route of an old track.
Between Awala and Sivepe it is marked by the sites of 9 abandoned
villages, first visible indication of the history of close settle-
ment on the country it traverses.

797| There were very few facilities for formal education in this
871| tribal area until shortly after the second world war when a number
of mission schools, staffed by Papuan teachers, were established
through the area and 'minor elementary education was brought to
over 90% of children of a varied age range' (Belshaw 1951.:2).

An Anglican Mission primary school was established at Sasembata,
1 mile south of Sivepe, in 1945 and a European teacher has been on
the staff since 1951; 9 of the 13 children of approximately school
age in the group we studied now attend.[2] Some children from Sivepe
are pupils at Martyrs' Anglican Mission school several miles away
at Agenahambo. A primary T school[3] was established at Awala in
1961 but no Sivepe children are pupils there.

Several villagers regularly attend the church at Sasembata,
which is in the charge of a Papuan priest, and most make periodic
use of the medical services provided by the mission sister. Some
women consult an infant welfare clinic formerly available at the
mission on alternate Tuesdays and some have joined a women's
sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

602 Kinship groups are of major importance in the functioning of village society in New
[619] Guinea. Every individual is a member not
[614] only of a parish but also of groups of closer
[613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his
602 relatives for heavy work such as the felling of
464 big trees to make a swidden, dragging a canoe
476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides
602 social stability and in practice the pattern of
311 land use is frequently decided by the senior
241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout
[578] the Territory. In the meantime, such measures, by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-
177 fore the coming of Europeans, has forced an even more drastic adaptation than have the
[P.3-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

632 changes in rural areas. For a man to leave his
177 village and go to work in the town means long
632 separation from his family and from his kin,
464 an experience unheard of in the past. Separa-
602 tion from his relatives means that he may be
361 facing dangerous risks from the sorcery of
754 foreigners in an unknown country. This is one
reason why migrant workers tend to live in
kin clusters in the towns. Unemployment, in-
adequate living quarters, low wages, the neces-
sity for paying in cash for all goods and ser-
vices, and the obligation to send cash gifts to
relatives in the villages, all add to the town
dwellers' difficulties.

121 The three areas to be studied in this book
are:

1. The north coast of Papua, near Popon-
detta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, in-
habited by the Nasioi people.
3. Port Moresby — two indigenous com-
munities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

133 *Topography.* Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

614 *Social.* The social structure of the Yega is
613 localised patrilineal clans, sub-clans, and line-
ages, inhabiting a few square miles of land.

[P.3-B]

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no form of organisation, in 1951, through which the
[659] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairope, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepa man resident at Ilimo; thus some Sivepa people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepa or
[178] Ilimo. Here the pattern suggested in the previous pages has hardly changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing attitudes and this is in Popondetta itself. Popondetta, the new
● 633 administrative centre of the Northern District, has about 4,000
[162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepa. The Sivepa people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
examples, but far more so in Hohorita.

633 All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kuamale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

721 see p.6) and by the Sangara would have been common knowledge but the neighbouring tribes on the plains were well endowed with land. Land shortage and territorial ambitions were seldom likely to have been sufficient to induce warriors to conquer new lands from traditional enemies.[1]

628 721 Williams (1930:151) says that the Hunjovarehu (including the people of Divinikovari) and the 'Wasida' people to their south are 2 subdivisions of 1 tribe but in other contexts (1930:166) he mentions that these 2 groups carried out organized raids on each other's territory; these were frequent and were characteristic only of intertribal feuds. He refers also to the 'Wasida' as traditional enemies of the Divinikovari 'tribe' (0.9). Monckton too (Territory of Papua 1904-5:36) had reported that the 'Wasida' used frequently to raid ' the low-lying villages of the Kumusi' including the Nimanakwari (or Divinikovari) 'tribe'; indeed, the ancestors of some of the men at Sivepe were killed while fighting the Divinikovari, Togahau and Asigi people to the north. 'The people known as Hunjovarehu' and 'the people of the Periho group', according to Plant, should not be regarded as members of the same tribe (1951: Appendix 4). Informants said that their ancestors were not involved in the isoro which the Wasida villagers fought with the Orokaiva of Sairope - and at times with those at Naropi (Wairope) - and with the people of the Managalas Mountains to the south (see Reay 1953:118; Williams W.23).

Our reason for arguing that all the mountain Orokaiva - the Sangara as well as the Periho (i.e., Wasida) - constituted 1 tribe, is that the basic criterion for identifying a tribe as a distinct unit is its members' joint political activity, as Williams says (1925:406; 1930:156) - the 'almost perpetual state of war with its neighbours'.

619 721 634 In feuds with neighbouring Orokaiva of tribes to the north, members of the Awala District had regular alliances with people as distant as Koropata to the west and the Sangara to the east. However, on no occasion known to us did the mountain Orokaiva as a whole combine in defence or attack en masse. It is even unlikely that the Periho 'welded themselves into a solid group', which Plant (1951:3) claims 'was based on political necessity', defended a recognized common boundary and combined to conduct isoro as a unit.[2] At the time of pacification they alone must

[1] This is true of almost all New Guinea societies, whatever the extent of their political organization: exceptions include Chimbu and the Mae Enga (see Brown and Brookfield 1959:42).

[2] Plant's inclusion of the Wairopi and Sairopi districts in the tribe (see p.6) is hard to reconcile with statements by Williams (W.23) and by Reay (1953:118).

619 721 634 have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] common patrilineal descent from a usually eponymous ancestor; they do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localized group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

851 611 614

[C21] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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[1] This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

[2] Data from Awala and Wasida villages (see Williams O.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

[3] Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
[614] temporary 'confederacies of clans', which conducted raids upon
[701] the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

● [634] However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

621 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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[721] [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo jawo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

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657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

[177] instituting numerous training programmes for the development of
[657] skills hitherto unknown to Papuans, and by setting up organisations
[647] in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepa came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepa; the sanitary inspector appointed by the council, who lived at Garoubi, came even more frequently, while many Sivepa people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[895] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garombi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garombi, but was non-committal over the other two, as he saw Isoga and Binduta were [276] insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages. [191] The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Moru), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

657 647 177 [499] Employed rather widely over the last decade or so, they have a responsible job, for which the qualifications include a reasonably high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European resources, namely motor transport. They very often have the power to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers came from the Motu-speaking coastal district. One [799] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

Though most of the contacts between village people and the office-bearers arise out of official roles, the local priest, the assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

875 Australia, enough of contemporary thought in literature, art and allied
657 subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

647 Though membership is open to persons of any ethnic group, it
666 seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election
[123] approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority.
[829] The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. It may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

175 177 726 from the three books of memoirs written by Monckton, who was resident magistrate in the district until his immoderate punitive expeditions led to his being eased out of the service in 1907. His most memorable achievement was the building of a road from Buna through Orokaiva country to Kokoda, near the goldfields. This road, slightly modernised, is still the main line of communication in the Northern District today. By the time it was built (1904), the sanguinary battles between Monckton and the Dobodura and others had taken place, so government patrols were treated with much circumspection. Nonetheless the tribes around Mount Lamington were still 'fighting like Kilkenny cats' (Monckton 1922: 142). Monckton's comments on the road are interesting.

> Yodda Road is tabu to the tribes and is traversed in perfect safety by single white men and their unarmed carriers. Never since I broke the Dobudura and Sangara has there ever been a theft upon it. It is a sanctuary for any and everyone; the wildest tribes only visit it in peace to trade food and goods to passing travellers. They rather like it, as small parties of hostile tribes can move freely about on it in safety with their women and children. (1934:41)

While the road was being built 'no hostilities took place between my working parties and the local inhabitants' (*ibid.* 63). It was thus described not only by Monckton, but also by Lieutenant-Governor Murray who wrote:

> The Wasida and Sangara have been particularly active in forming markets along the road which leads from Buna Bay to the Yodda Goldfield, and in supplying carriers with taro and other food in exchange for articles of trade, such as tobacco and glass bottles, which are much prized for the manufacture of razors. (1912:105)

175 ● 648 The Protectorate of British New Guinea became Australian territory by the passing of the Papua Act 1905 by the Commonwealth Government of Australia. The new administration adopted a policy of peaceful penetration and the Monckton type of massacres were not repeated. Nonetheless, these early excesses are now forever part of Orokavia history. In the period that followed Papua presented 'in many ways an example of enlightened rule' (Mair 1948: Ch. III). Many measures of social and economic native development were introduced, though these invariably took the form of 'native regulations', for the breach of which a penalty was attached. The principle of coercion was applied over a remarkably wide and ever widening field.

From the days of McGregor, local control was in the hands of 'village constables, paid servants of the Crown. They were intermediaries between government and people, chosen by European officers.' From 1925 onwards, one or more 'village councillors' were appointed alongside the village constable. These were not paid servants of the Crown but were intended 'to be the representatives of native opinion'. In the Northern District I found they had generally been regarded as constables' assistants or subordinates. No indigenous officials had any judicial powers, as Murray felt such powers would lead to corruption.

In the period of Murray's rule (1907–40), the government's basic objective was to turn the Papuan into a keen and efficient indentured plantation worker. In that role, he was assiduously protected by measures which effectively

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry. Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT
(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages.

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/11

HOHORITA MALE ADULTS IN SKILLED OCCUPATIONS

463
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Occupation	*Resident*	*Non-Resident*	*Total*
Teacher	9	1	10
'Medical'	3	–	3
Driver	2	2	4
Shopkeeper	4	–	4
Other	2	2	4
Total	20	5	25

648 the Australian rulers, although they also know that so far the difference is not great.

177 Finally, broadcasting services and the messages transmitted by councillors have greatly increased their knowledge of the outside world. Through their transistor radios, they become aware of, and discuss, the affairs of the independent nations of Asia and Africa. They are thus beginning to feel part of the modern world.

5. *Field Locations*

101 I spent one year in the Northern District, travelling through it a good deal. My detailed data come mainly from three villages which I shall now describe briefly.[13]

Inonda. This was the first village I visited; I stayed there for eighteen days, returning later for a few brief periods. The village was previously reported on by
105 Crocombe and Hogbin, Krinks and Waddell. It lies eleven miles from Popondetta, on the road to Oro Bay, has seven dwelling houses and a population of forty-two. At the time of my visit, there was only one politically significant clan represented in the village, namely Andiriha, who had been driven from the foothills of Mount Lamington by the Sangara tribe some fifty years earlier. Inonda, like other Orokaiva villages, was laid out in an elongated rectangle, with the dwellings spaced at equal distances. Neat rows of palms, shrubs and floral borders interspersed with trees subdivided the central area between the houses so as to give each family a semi-private space. The village had an Anglican chapel, made out of a corrugated-iron storage shed, where a lay preacher gave services. There was also a corrugated-iron copra-drying plant, no longer in use. Just behind the village was a slab of concrete laid down by the army during the war, and now being utilised as the floor of a women's club house that was being built at the time.

Unlike the other villages I visited, Inonda is only partly Christianised, four of the households being pagan. Coffee gardens have been established only by the Christian families and the women's club, which is one of a number organised by the government for social development purposes, and is supported exclusively by the same families. Inonda was also unusual, at least in my experience, in having one leading family in control of virtually all forms of community organisation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

743 The Public Health Department maintains a large base hospital
366 at Saiho, 5 miles from Sivepe. A vegetable market at Saiho,
originally established to supply the hospital, now serves a wider
[432] range of customers and at present is open every Thursday and
[438] Saturday (E. Waddell: personal communication). A few Sivepe
people in our sample sell vegetables there regularly but seldom
buy anything except lime (for chewing with betel nut). There are
well-stocked trade stores at Saiho and Awala and a Savings Bank
agency at Awala. In 1963 a trade store was established near
Sasombata, by a number of Kongahambo village.

177 We could not complete this introductory sketch of local
• 648 facilities and conditions without noting the traumatic experiences
of the mountain Orokaiva during the life-span of the older men.
Even an abbreviated description of local attitudes towards
introduced economic and social changes such as we attempt later,
would be inadequate unless it alluded to the likely deep impact
of the following events.

First, the early government patrols, which encountered wide-
spread opposition from the Orokaiva, were attacked most
persistently by the 'Wasida' people who include the Sivepe
villagers. Fighting was fierce and many of the old men we talked
to had seen close relatives killed or wounded.

Second, during World War II the paths of advance and retreat
of Australian and Japanese troops crossed this area and the
[121] Orokaiva were 'drawn in as helpers, willingly or unwillingly, on
both sides of the lines'.[1] Some Orokaiva groups also became
involved in intertribal skirmishes at this time - during our stay
an immigrant military exercise occasioned apprehensions among some
Orokaiva about a possible resumption of dormant intertribal
conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns
swept the area, many people in the neighbourhood of Sivepe died
of malnutrition. In addition, there was very thorough recruiting
[101] of local men for subsequent phases of the war elsewhere in the
Territory. In 1948 patrol staff reported that there was cause
for concern in the continued decline in population.[2] At this

[1] Keesing 1951:8. For an account of this episode see McCarthy
1939: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover,
many villagers were employed as labourers on local European
plantations and returned only at weekends; more important, the
percentage of able-bodied males absent elsewhere as indentured
labour had reached 31 and the officer accordingly recommended in
1948 that the area including Isoge, Isivita and Awala villages be
closed to recruiting.

time the process of readjustment and restoration was still a major question demanding attention. A few years later the third misfortune occurred.

The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

After the war, compensation was paid for property of the villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

For our investigations, Sivepe was chosen from the villages in the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

The interest which governed our own selection of a sample of manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

clan distribution can be obtained from the following summary of diverse information from the mountain Orokaiva and the Aiga.

The people grouped under the names Isivita 1 and 2 and Sasembata 1 and 2 numbered more than 1,600 in 1948 and occupied 44 villages. By the time of the eruption in 1951 the number of villages had been reduced to 27 (see Plant 1951: Appendix 3) and 40 clans had branches in one or more of them - there were at least 17 clan branches in villages other than these, representing 6 of the 40 clans. Eleven of the Isivita and Sasembata villages consisted only of members of 1 clan, although only 3 of these villages constituted a whole clan.

Williams (1928:124; 1930:101) suggests that a periodic increase in the 'multiplicity of small clans', caused by subdivision, is only 'in part neutralized by the dying out of older clans'. He says that there is a marked consistency in clan organization throughout the Orokaiva area (1925:406)[1] and in 1923 the generalization that 'local and lineal groups seem to be largely coincident' was true of the Jegasi-Sarahu, i.e., the Wasida group of villages (W.10, 31). In this context he adds that this pattern was altered somewhat by the dispersal caused by a special factor: an attack by the first government patrol on Wasida and neighbouring villages. He does not record the relevant clan branches present in local groups other than the 15 Jegasi-Sarahu villages of the tribe, but 5 of the 7 clans listed are seen to be represented in more than one village. However, only 2 of the 15 villages contained 2 clan branches. The average village consisted of 6 houses (normally nuclear families) and a single-boys' house (W.1), perhaps 25 people in all.

Data collected in 1924 among the Aiga show that there were 37 clans among the 50 villages of the tribe, with an average of about 35 members, or perhaps 'a dozen families', in each clan (Williams 1930:7, 101; 1925:418). Williams says that the 'normal', 'typical' or 'original' residential group was the 'clan-village' - clan and village were coextensive (1925:407; 1928:124; 1930:103, 310; and 107, 131) - but notes that in the larger villages there were 'often two clans or more' (1925:407). In fact, 12 of the 24 clans listed in 36 of the Aiga villages had 2 or more branches there (O.19, 20). Yet Williams might then have argued that in such instances fission would soon be completed and 'the normal conditions restored, viz. the clan locally unified and in

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[1] Cf. Reay 1953:110: Williams' information on the Aiga, Binandele and Tain Daware tribes reveals 'a social organization practically identical with that of the Wasida people'; see also Williams 1930:7.

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepa and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

648 Kokoda. The invasion brought a much higher degree of cultural
177 contact and upheaval by both the occupation of the Japanese and
the counter-occupation by the Australian forces. Another dramatic
731 upheaval took place in 1951 when Mt Lamington erupted, killing some
4,000 Orokaivas and Europeans. This caused a mass evacuation from
the traditional home villages and the temporary settlement in
collective camps outside the declared contaminated area. The
temporary resettlement caused much friction (Keesing 1951).

797 Mission influence is strong in the Northern District. This is
provided almost exclusively by the Anglican church and is of a
fairly orthodox nature. Mission influence is mixed somewhat with
traditional beliefs and there is an air of mysticism about the
resultant religious system. Education is predominantly through a
871 system of mission schools, partly financed by the Government
975 Department of Education. The schools are staffed by both European
and Orokaiva teachers and use an approved syllabus. The teachers
are dedicated but often not substantially better educated than
their pupils. Many of the Papuan teachers are educated only to
Standard 4.

177 There is currently some covert aggression towards the European
settlers, some of whom reciprocate in a more overt manner. The
563 history of European contact has not always been happy. Frequent
misunderstanding and misinterpretation by both sides has led to
strained social relations in many cases. The initial settlement
of Europeans in the area resulted in bloodshed and ill-feeling.
Early miners and police both had cause to fear the Orokaiva. Later
government attempts to enforce cash cropping met strong resistance
in some areas. The Japanese invasion and its subsequent defeat led
to many confusing and bewildering Orokaiva deaths. Since the last
war there has been some improvement of the race relations - but
they are still basically seen in some type of dominance relation-
[797] ship, e.g., master - labourer, teacher - pupil, etc. The Anglican
church has ordained a few priests and in general has congenial
relations with the Orokaiva, yet this does not necessarily suggest
a closer empathy with or understanding of the people. The Orokaiva
regard some resident Europeans as welcome and fairly warmly received
and others as being unwelcome trespassers. More Europeans appear
to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers
attribute stereotyped characteristics of personality and tempera-
ment to particular local groups. This process of one group
classifying another into psychological types provides a working
basis for interaction. The Orokaiva were quickly allotted a
stereotype and this came to be reinforced as the ascribed charac-
teristics were searched for and found. The Orokaiva were classed
as being 'surly', 'resentful', 'sulking', 'good policemen but need

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When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilised' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognised in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A1) (TEXT CONTINUED ON PAGE 14-B)

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory,
feelingly recounted. But the fine points of organisation of the
resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research
● 648 procedure. I should also, however, mention one or two general
facts as a background to my report. The British Protectorate of
New Guinea was proclaimed in 1884; the Territory of British New
Guinea was placed under the authority of the Commonwealth of
Australia in 1902. The effective conquest and pacification of the
Northern District in which the Orokaiva live, occurred between
1894 and, say, 1906. It was to some extent speeded up by the
presence of some gold miners who had to be protected and the road
from Buna to Kokoda was built towards the end of that period.
[777] After the first world war, Europeans set up rubber plantations on
a small scale; the Anglican Mission became established, especially
along the coast. The process of pacification was a somewhat
bloodthirsty event. If the Orokaiva are asked to state when they
discovered what they call the "new day," i.e. modern civilisation,
they refer neither to this conquest, nor to the events following
the eruption, but rather to the second world war and its aftermath.

648 The Japanese conquered most of the Northern District in
177 1942 and were driven back, in the beginning of 1943, by the
combined Australian and American forces which crossed the Owen
Stanley range and defeated the Japanese along the Kokoda trail.
Some Orokaiva collaborated with the Japanese and killed or betrayed
Europeans who were left behind in the district. When the allied
forces came, the Orokaiva were able for the first time to establish
really comradely relations with white men who, moreover, were
generous with gifts and left behind much valuable equipment. The
returning Australian government developed a new colonial policy
after the war eliminating the old use of compulsion and corporal
punishment while the Anglican Mission and later the government did
much to improve educational facilities. Access to trade goods on
a major scale began about that time. Training in the handling of
cash crops, notably coffee, also dates back to the immediate post-
war period. The eruption, which occurred in 1951, certainly had
significant social consequences, but it is not easy to keep these
consequences, i.e., the modernisation that can be directly ascribed
to government measures arising out of the eruption, distinct from
the policy of social development that was being followed at this
time throughout the district.

731 With regard to the eruption, we must distinguish three
types of effect: first, a part of the district, notably that
occupied by the Sangara tribe, felt the direct blast and suffered
very heavy casualties, while all survivors were evacuated; secondly,
a part of the district, occupied by several tribes, was endangered

CHAPTER V: Familiarity with New Homeland

In spite of the pax Australiana, Orokaiva still view with some apprehension visits to villages of traditional enemies, if friendship has not been explicitly established between visitors and host village. In 1951, this feeling of apprehension was even stronger than today. I was told that in pre-contact times a man would be extremely rash to visit a village where he was unknown as he might well be killed. Even then, however, it was sufficient protection if a visitor was able to ask by name for a kinsman or friend resident in that village. This person would then take the visitor under his protection and he would come to no harm in the host village.

A story about a football match held in Sangara shortly before the eruption demonstrates the dangers that existed even then. A Sangara team had visited a village in the Gona district and had defeated its hosts at football. On the way back home, a member of the team fell ill and died from blood poisoning. The Sangara people attributed the death to sorcery by the defeated village. When shortly afterwards this village visited Sangara to play the return match, the Sangara came to the football field armed with hidden knives, guns and pineapple clubs, intending to kill their guests. A bloodbath was avoided only by a thunderstorm during which the match was cancelled.

In these circumstances, it is understandable that the Sangara and Isivita people were unhappy about their evacuation to camps in the coastal region after the eruption. It was not, of course, the specific instance just quoted that made them uneasy but a general apprehension of danger. Certainly, deaths and illness occurring in these camps were very liable to be ascribed to sorcery. This is no doubt one reason why the government lost no time in closing the coastal camps down and bringing the inhabitants back inland, placing them in temporary accommodation in Popondetta and April, even before permanent resettlement villages for Sangara could be planned.

The camp at Ilimo did not create the same kind of worry, as Orokaiva has no reason to fear sorcery on the part of the Ilimo people. The Sivepe people feared no harm from Ilimo because two Sivepe families had friendly and kinship relations there, while there was no history of hostility between the two places. Ilimo, furthermore, was near some European plantations where people of Sasembata district at times found employment. While the Sivepe people were in the camp, they were on visiting terms with the village people. It is important to realise that the pivot of the friendly relations between these two villages were a small number of individuals who were linked by formal bonds. Of the two bonds, one was affinal while the other was a friendship bond based on contact between a Sivepe plantation worker and Ilimo village people.

should be formed ... (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/9

657 **REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966–JUNE 1967 (*abridged*)**

Revenues		*Expenditures*	
Tax: 2000 males	$16,000	*A. Personal Emolument*	
1000 females	1,000	Council President	$ 156
Truck Hire	13,000	Council Vice-President	108
		Councillors	1,560
Aid Post Orderlies Subsidy	1,250	Exec., Fin. Ctee	108
		Council Clerk	1,170
Water Supply Subsidy	3,320	Messenger	390
Aid Post Subsidy	240	Landrover Driver	500
		Truck Drivers	1,450
Adult Education Subsidy	780	Agric. Fieldworker	234
		Market Manager	260
Miscellaneous	2,900	Aid Post Orderlies	2,500
Total	$38,490	*Total*	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		Total	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health, Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 villages)	900
		Roading (3 projects)	6,070
		Other Items	2,099
		Total	$21,434
		Grand Total	$39,212

Council were road building, improvement of water supplies, building medical aid posts, maintaining produce markets at Popondetta and Saiho and the operation [651] of trucks to provide extra revenue. Most revenue was derived from a head tax of $8 per annum for every adult male and $2 per annum for every adult female. The central government paid a 50 per cent subsidy on certain Council projects. [474] [245] Between 1959 and 1962, the Council also ran the coffee processing factory operated for Orokaiva producers, but this was transferred to the control of an

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture. 657 241

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with. 248 245 [249] [243]

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres. 245

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60 245 466 [651]

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

466 days per year on the plantation of his village.(1) Those who worked 60 days or over were thereby exempted from head tax 245 (then ten shillings per year). Those who did not were liable not 651 only to head tax but also to a fine of £2 or imprisonment with hard labour for a period of three months.

245 Evidence is inconclusive as to how much work was required in practice. Despite the reference to sixty days' work 466 per year, crops like coffee needed constant attention and if only sixty days per year were to be performed by each man, either work days would need to be staggered or workers rostered. At first government officers required 120 half-days, but in most villages once the crops were in bearing all men were required to attend every morning from Monday to Friday throughout the year.(2) None of the foremen had watches and it is impossible to know how long men worked in fact, but informants in widely separated parts of the area claim that they were required to work until noon in the coffee gardens. In addition, men took turns to carry the produce on foot to the government base at Higaturu every Saturday. This involved a walk of about fifteen miles in each direction from the Ongoho (Asigi) community block.

462 Women took no part in cash cropping, but they did most of the gardening. Men sometimes helped in the food gardens in the afternoons.

657 Reports of the period contain many references to the peoples' lack of enthusiasm for the scheme and heavy sanctions 245 were applied by government officers to have their programme 466 enforced. In 1925 the Resident Magistrate tried to extend the

(1) Men who had been away as indentured labourers were exempt from this requirement for three months after their return to the village.

(2) At several places near Higaturu people claimed that they were required to work afternoons also during busy periods. After such periods they would be allowed a week or more off with no plantation work. It seems likely that this was done in the villages close to Higaturu which were under closer supervision by the officer in charge of the plantations. In the more distant areas the officer seems not to have delegated any authority to vary the regular pattern. Humphries (1944 : 3) notes that the specified period of 60 days (he says three months) was not observed in practice and that "in fact men were called upon to work whenever circumstances required them".

245 No payment was prescribed, and none was made for carrying
466 from the plantations to the depot at Higaturu. Sometimes pay-
[465] ment was made for carrying produce the 16 miles from Higaturu to the port (usually in twist tobacco according to informants), but at other times persons convicted of breaches of the or-
[492] dinance were required to carry as punishment. Mules were
[493] later introduced to carry the produce from the factory to the port, and in the late 1930's a truck was acquired to transport it from Popondetta to Sanananda. The mule train was still used between Higaturu and Popondetta until 1940.

245 Official reports of the period consider the reluctance
177 of the villagers to have been due either to a lack of understanding of the benefits they would derive from the scheme or to innate laziness. C.T. Wurth, who was Resident Magistrate in 1926, considered that the people "had not grasped the advantages of the plantation and the benefits they will eventually reap" and noted that many men from the villages with plantations had gone off to work as labourers elsewhere (P.A.R. 1925-6 : 50). His successor described the "toil and disappointments" entailed in supervising the plantations and stated that the village people "have to be driven to it by the fear of gaol".(1) He was aware that there was no cash return during the first four years after establishment of plantations and hoped that attitudes would change as soon as the trees came into bearing and income was derived.

241 As noted on page 7, half the produce of the plantations was to belong to those who produced it and the other half to the government. But in practice in the Northern District, pro-
[651] ducers were required to deliver all produce to the government depots at Higaturu, Popondetta and Buna.(2) The half of the

(1) P.A.R. 1926-7 : 53. A later magistrate followed a policy of "incessant talking to the village councillors ... for even if they do not think his [the magistrate's] advice worth following, they may be glad to take it as the only means of keeping him quiet" - P.A.R. 1933-4 : 29.

(2) The main depot was at Higaturu until 1941, but in that year new machinery was installed at Popondetta to handle pulping, drying and hulling. (Since 1933 the coffee had been shipped in the parchment stage to Port Moresby where it was hulled at the government rice factory). Before the Higaturu depot was closed, however, war broke out and all three depots were destroyed.

proceeds to be retained by the government was paid into the Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

Hulling, marketing and administrative costs incurred in running the plantations scheme were paid from the Native Education Fund. The same fund provided a coffee pulping machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation ....

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed ....

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ...

1. Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

2. Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

3. No proportion was ever gazetted but it is understood that one half was invariably taken.

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

657 433 From the villagers' viewpoint Europeans who participated in establishing and exploiting their rubber, and other external agencies, have alternately assumed complete control of the enterprise - if it could legitimately be regarded as a continuous attempt to realise their assets' potential - or have adopted a laissez-faire attitude towards village production.

To help meet current demand A.N.G.A.U. encouraged resumption of the project after the war but the planter claims that 'in spite of repeated representations Administration has given no support, moral or otherwise', to the various schemes; although he sought to determine the villagers' preferences where alternatives offered themselves, it was inevitable, as things stood, that the people generally had very few opportunities to decide what form the scheme should take. They could merely be invited to express their preferences on random points about the implementation of a policy determined by others; they could also decide whether to participate or not, at the times a market could be offered.

When responsibility for specific tasks needed to be left with them as one scheme after another evolved, it was delegated inconsistently, left to chance or, at best, left to ad hoc decisions with the result that no clear and consistent definition was given to the respective rights and powers of Village Constables, Councillors, tappers and owners - either those initially listed on the agreement or the wider group said by informants later to have exercised these rights.

The fluctuations in the form of marketing schemes also engendered doubts as to the justification of the methods of determining the price or royalty they received. Uncertainties were not resolved by the lacunae in the scheme which some or all of the villagers were abruptly faced with at one time or another.

651 The people who planted coffee in 1956-7 had hoped that the income from the new crop would exceed their shares of the small revenue from rubber and could be depended on to provide enough for their annual tax paid to the newly established local government council. However, the income from the village plot would have been too low to provide this for everyone who participated in planting the coffee, if they had all been allowed to share in the money.

433 Whatever the cause of their unrealistic expectations, their disappointment and their bitterness over an alleged inconsistency in the payments made to different people or on different occasions for similar quantities of produce of uniform quality have been obstacles to the expansion of the present areas under coffee and to the introduction of cocoa as a second new cash crop. Growers express the view that, because their efforts with coffee have been

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [651] [623] period of most intensive cash crop production. Between about March and July the Higaturu Local Government Council collects its [177] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [771] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

(iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Mosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

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431 people, however, are almost entirely in the gift exchange system and conform more closely to the pattern of disposals of garden and forest produce. They include the sale of copra to the co-operative society at Oro Bay.

437 (iv) Cash. As with storebought goods, most cash is derived [434] from Popondetta (see Table 11:24), largely in payments from administrative agencies for goods or labour. Over half that acquired from Inonda represents payments by the entrepreneur to those who worked on his contract. Similarly, acquisitions from Evundo and the Girua block are also in the form of payments, from employment by the construction company and a settler respectively. The money from Oro [431] Bay was from the sale of copra. Other cash is in the form of gifts, the main sources being villagers in Inonda and wage-earning kinsmen in Ururu, Popondetta, Saiho and Madang. Since expenditure is directed primarily to trade stores, the pattern of disposals of cash is very similar to that of acquisitions of non-traditional goods. Most goes to stores in Popondetta; disposals within Inonda include the payments to labour, purchases at the trade store and [651] gifts. Payments of tax to the Higaturu Local Government Council account for over one-tenth of all cash disposals. Transactions of significant sums of money are restricted to people or organisations

Table 11:24

Inonda: the geographical distribution of monetary transactions

	Acquisition		Disposal	
	Total $	Per cent	Total $	Per cent
Inonda	61.80	18	88.32	26
Ijika	3.10	1	9.10	3
Girua block	38.80	12	5.04	1
Mosou	4.94	1	5.60	2
Sewa	4.10	1	0.30	-
Evundo	17.20	5	28.06	8
Urio	-	-	5.92	2
Popondetta	169.40	50	152.30	45
Ururu	14.50	4	4.20	1
Jegerata	2.00	1	-	-
Saiho	4.00	1	-	-
Higaturu	-	-	38.00	11
Madang	12.00	4	-	-
Oro Bay	2.32	1	-	-
All other places*	3.20	1	3.46	1
Total	337.36	100	340.70	100

* Six in all for acquisitions; 8 in all for disposals.

balance in December 1965 being close to $300. The value of savings certificates averaged $10, shares in Orokaiva Coffee Growers' Society and Cona Co-operative Society $10, shares in Oro Ltd $85 and cash in hand $42, giving an average total of all liquid assets of $447.[1] In both cash and other liquid assets A, B and C were much better off than D, though D's consumption level appeared to be very much higher because of his government development loan.

A, C and D have no traditional valuables (hambo and di) though in each case their brothers do have. B had $87 worth in May 1963.[2] The averages for Inonda and Sivepe villages, by comparison, were $18 and $11 per man. Whereas Inonda people acquired most of their valuables by inheritance or in traditional exchanges, B acquired almost all of his for cash.[3] In his young days he bought some when visiting distant places but most of them have been acquired when people appeal to him at tax collection time (tax is $4 per year) or when they need cash for other urgent necessities. The visitor presents him with a valuable and asks for 'help' in the form of its cash value. Most persons requesting this help have been distant maternal kin, but some are friends with whom he had trading or work connections in earlier years. The fact that none come from his own village is said to be because neighbours or close relatives would be ashamed to ask for money in this way. The other three entrepreneurs say they decline requests of this kind.

Income

An attempt to assess annual expenditure was abandoned. It is difficult enough to assess income which comes in relatively large amounts from limited sources and at long intervals and for which some records are available as a check. Expenditure, on the other hand, is in much smaller amounts, for a much wider range of commodities and for which almost no documentary evidence is available.

An assessment of income is given in Table 4.

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[1] Cash savings of Inonda and Sivepe village householders, on the other hand, averaged $24 and $21 respectively.

[2] For method of valuing hambo and di, see Crocombe and Hogbin 1963b:97.

[3] We have heard of recent examples of sale within villages elsewhere in the Orokaiva area.

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 3 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on
[654] loan from the Department of Agriculture. The baling press was provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

●[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the ideological pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	**A. Personal Emolument**	
		Council President	$ 156
1000 females	1,000	Council Vice-President	108
		Councillors	1,560
Truck hire	13,000	Exec., Fin. Ctee	108
		Council Clerk	1,170
Aid Post Orderlies Subsidy	1,250	Messenger	390
		Landrover Driver	500
		Truck Drivers	1,450
Water Supply Subsidy	3,320	Agric. Fieldworker	234
		Market Manager	260
Aid Post Subsidy	240	Aid Post Orderlies	2,500
		Health Worker	256
Adult Education Subsidy	780	TOTAL	$ 8,692
Miscellaneous	2,900	**B. Revenue Expenditure**	
		Council Administration	$ 1,000
TOTAL	$38,490	Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,685
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

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the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself purchase coffee but when the Higaturu Local Government Council was formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Caroubi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

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defaulters in 1966 were actually jailed for two months. In one village,
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and ran into the bush; in Sivepe there were four, all without coffee
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177 In spite of this tension, people generally supported the ideology
623 of the council: they wanted the "new age" and they wanted the kind
of services that were supplied by the council. At the same time it
was never forgotten that behind the tax-gathering councillors stood
the government police, armed and ready to make arrests if the councillors
were resisted or attacked, as sometimes happened. Those who did not
pay and tried to escape arrests were judged by the conformists to be
ignorant men, unwisely looking for trouble. On the other hand, people
deeply sympathised with them. People wanted the "new age," but they
did not like the element of compulsion that went with it. They re-
elected the councillors who compelled them because they held the
Australian authorities, not the councillors, to be directly responsible.

875 spite of this vast differential, the mission continues to recruit
[465] certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 hold A course certificates or better. The amount payable ranged from
895 $240 per annum to $1000 per annum according to qualifications and skin colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
971 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepa, are constantly making substantial contributions. The head teacher at Ssembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

expected to levy. He wrote his Bishop that he would not collect the tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's educatim differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	**A. Personal Emolument**	
1000 females	1,000	Council President	$ 156
Truck hire	13,000	Council Vice-President	108
Aid Post Orderlies Subsidy	1,250	Councillors	1,560
Water Supply Subsidy	3,320	Exec., Fin. Ctee	108
Aid Post Subsidy	240	Council Clerk	1,170
Adult Education Subsidy	780	Messenger	390
Miscellaneous	2,900	Landrover Driver	500
TOTAL	$38,490	Truck Drivers	1,450
		Agric. Fieldworker	234
		Market Manager	260
		Aid Post Orderlies	2,500
		Health Worker	256
		TOTAL	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,685
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

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Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepo and Isoge or Kendata than with Garoubi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepo are now expected to cooperate in both church and [178] local government council activities. This is definitely a somewhat novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

797 When the Sasembata mission station was built in 1952-1953, 794 all the villages contained in the parish collaborated. Miss White's 628 diaries show how this cooperation was organised. Miss White, who was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garoubi and Isoge would finish the hospital ward, Sivepo and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials 628 and in 1966, while I was in the field, the time had come to pull it down and renew it. The Australian teacher in charge of the [751] station was unable to organise this work. There was, however, a Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garoubi, Sivepo, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

654 and local field trials are being carried out on the volcanic soils
242 of the Northern District.

Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve
[879] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu
657 Council to deal with. I have already mentioned that government officers
423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.)[A] Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

653 a council responsibility. While the rebuilding of the arterial road
[491] from Popondetta and Kokoda was an expensive (and seemingly interminable)
responsibility of the government, the side roads became the council's
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Australian authorities, not the councillors, to be directly responsible.

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

758 759 During the time I was at Hohorita, there was no local medical service because the officer appointed by the Health Department was a Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

[653]

653 In Sivepo, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the culture heroes. When I did, in a very innocent way, express my

[731]

5: Schwimmer E-4,5 (1966-1967) 1973
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CHAPTER XI

EPILOGUE

I have not presented in this work all the empirical facts that may be elucidated with the proposed model of Orokaiva society. I have had space to discuss only a small minority of the myths which are at my disposal but there are a number of others that are more readily understood in the light of my analysis of social structure. The description I have given of corporate activities in patrilineal descent groups has been rather summary, even though much additional evidence could have been marshalled presenting them as competitive segments of a wider non-agnatic collectivity. The rather interesting institution of hereditary friendship, between both men and women, has not been described although this forms a not unimportant part of the total exchange network. Indeed, I have not reported the exchange network in much detail at all, largely because this has already been done in my earlier work entitled *Cultural Consequences of a Volcanic Eruption Experienced by the Mount Lamington Orokaiva* (1969).

Many of the facts reported in this earlier work can be more adequately explained in the light of the analysis offered in the present one. Orokaiva reactions to the eruption, for instance, are not easy to account for unless we can explain the powerful driving force of the *iji eha* ideology discussed in Chapter IV above. The earlier work also did not elucidate the relationship between Orokaiva and the white man. It was made clear that this relationship is an ambivalent one, positive when the Orokaiva leader plays the roles of councillor, village constable or 'committee', but negative when he plays the role of organiser of a co-operative or of transmitter of messages with a millenarian import. Although these roles were described in detail, I perhaps did not make it clear enough that they are often played by the same individuals at different times, or at the same time, and that even if they are played by different individuals, these are not necessarily thereby placed in a position of conflict between one another.

We can, however, easily account for this ambivalence if we remember that social exchange between Orokaiva and white authorities is subject to the laws of the exchange system: there is an alternation between positive and negative cycles. Some members of an Orokaiva group may be in a positive cycle of reciprocity with white authority while others are in a negative one. This does not necessarily mean that the members of the Orokaiva group are in conflict with each other. The same members of a community may support both a co-operative to which the administration objects, and a councillor who acts as an administrative mouthpiece.

The facts are that the administration provides valuable benefits (and the mission likewise) so that there is a sound basis for cycles of positive reciprocity.

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

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On the other hand grievances inevitably arise and these are hard to resolve as the Orokaiva and the white man rarely reside in the same village, rarely eat together and very rarely intermarry. Thus the resolution of conflict is never easy as none of the traditional mechanisms is available for shifting a social relationship into a cycle of positive reciprocity. In these circumstances the Orokaiva requires channels for expressing both positive and negative reciprocity. He therefore has both. The importance he attaches to the one or to the other will necessarily fluctuate according to the changing course of events: the relative weight given to benefits received and grievances experienced at a given time.

It is a mistake to assume, as a European is easily inclined to do, that an Orokaiva is either 'friendly' or hostile to him. It would be more accurate to say that an Orokaiva is, at a given time, involved in a positive or negative exchange cycle with many *alters*, both European and Orokaiva. He usually does not have a commitment to these *alters* that goes beyond the history of the social exchange conducted with them. He assumes that if a European values the continuation of a positive cycle, he will provide sufficient benefits to maintain it. If an Orokaiva is unsatisfied with the balance of exchanges he will usually make no secret of his feelings. If a European ignores these feelings one may expect a negative cycle to begin.

My method may thus have some relevance for applied anthropology. It is unwise, in a situation such as the Orokaiva one, to ignore either the millennial-type leadership or the supporters of the administration. Councillors and similar functionaries act as bond-friends of the Europeans. Their role is non-charismatic but they can be influential as mediators in positive social exchange with the authorities. Millennial leaders tend to stand aloof from the authorities, and this, in terms of the Orokaiva system, is an expression of negative reciprocity. They are charismatic mediators in the relationship between their followers and the *dema* figure whose blessings they are endeavouring to obtain.

Now it would be wrong to suppose that the administrative Orokaiva mediators are concerned with socio-economic development whereas the supporters of a millenial movement or crypto-millennial co-operative[1] are not. I have shown in Chapter IV that the ideology of the *iji eha*, under which we may classify all development ideology of the Orokaiva, whether government-sponsored or not, is based on the assumption that the blessings of the modern age derive from a *dema*-like conceptualisation of Jesus Christ. The two types of leaders differ only in the channel of mediation between the people and the *dema*. For the councillor, the blessings are channeled through the government or mission authorities; for the messianic leader they are channelled differently.

P. Lawrence (1963) takes the view that millennial movements are a 'hindrance' rather than a 'help' to economic development in Papua and New Guinea. If the argument I put forward in the preceding paragraph is correct, the Orokaiva view all economic development as ultimately religious, whether it is channelled through a millennarian leader or the government. Lawrence's question then reduces itself to a narrower one: whether a millennarian leader is a 'help or a hindrance' in mediating the ideology of the new age. This question, however, may not be relevant to Orokaiva realities: to the extent that negative reciprocity between Papuan and white is prevalent, the millennarian leader will

5: Schwimmer E-4,5 (1966-1967) 1973
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be valuable as mediator with the *dema* of the *iji eha*. In 1966–7, millennarian leadership among the Orokaiva was relatively unimportant and thus may be ascribed to a relatively high degree of positive reciprocity between Orokaiva and the white authorities. Among the more important benefits received by the Orokaiva were: the success of cash cropping, especially in coffee, the rapid extension of education, health and other valued services, and the rising influence of the Higaturu Local Government Council which was viewed as a gift from the government to the Orokaiva.

A significant growth of millenarianism would therefore indicate a growing emphasis on negative reciprocity. How should it be dealt with? According to the Orokaiva ethos, the authorities should make gifts or concessions to expiate their unsatisfactory performance. Repression of the movement would only perpetuate the negative cycle. Far from regarding the movements as a hindrance to development, I would regard them as a political process: consciously or unconsciously, they are means of bringing pressure to bear upon the authorities. The ultimate pressure is obtaining the benefits of development.

Knowledge of the rules of Orokaiva social exchange may help us to understand not only social but also political and religious patterns because exchange, in the sense in which I have used the term, represents a world view and penetrates a wide range of institutions and situations. If my method is applied to the analysis of millenarian phenomena, those phenomena would need to be described as essentially a mode of pursuing *ivo*. Now I have shown (Chapter VII) that *ivo*, whether under its aspect of expiation or communion, is fundamentally a magical device for the mediation of social relationships. It would follow from this argument that millenarianism has as its ultimate aim the management of social relations with white power bearers. This manipulative aspect of millenarianism is brought out clearly by Burridge (1960) who presents each new phase of the movements in Tangu as an attempt to establish more effective social relations with white powers. I cannot attempt here to prove with any finality that millennial movements are objects of mediation in a negative exchange cycle and that this would explain all their social, economic, political and religous characteristics. My only purpose is to suggest that the method proposed in this work can generate fresh and perhaps interesting hypotheses in many subjects of current interest in Melanesian ethnography.

Throughout this work, I have been concerned to demonstrate a method rather than to expound a theory. If, in conclusion, I shall now make a few theoretical remarks, this is to acknowledge debts rather than to develop new propositions. My debt to Lévi-Strauss is so obvious that little needs to be said about it. I have utilised the methods advocated in virtually all his major works. My use of the concepts of exchange and reciprocity as the basic principles of my analysis is due to the inspiration of Lévi-Strauss.

Yet Lévi-Strauss' work has less to say about the methods of ethnography than about the structural analysis that must follow after the ethnography is completed. The profound implications of his thought for the practice of ethnography remain to be elaborated. Here a number of his followers have made valuable contributions which I have found very helpful. I shall confine myself here to mentioning a few examples. Dumont has shown, by practical demonstration, that in societies where positive marriage rules exist, affinity is

and a lack of buying facilities, no coffee was picked at Ongoho until 1952. 241 [731]

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account. [578] [258]

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the 654 245 245 578 [654]

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage. [425]

extension staff left, the internal tensions re-asserted themselves. [245] [578] [654]

The people made an attempt to keep the garden working as the price of coffee was then 3/3 per pound. Persons from several sub-clans participated in harvesting, pulping and drying and a consignment of coffee was taken on foot to Popondetta (a distance of about seventeen miles each way by the paths then in use). For the first time women and children helped with the harvesting. The income from sales was distributed by the coffee boss, but disputes arose over the proportions due to the "landowners" for the use of the land and to the coffee boss for his supervision, as well as the relative shares to be given to those who had done the work, for some had not worked as many days as others. Members of other sub-clans again withdrew from the project. The coffee boss himself and some members of Hoiwo'undi sub-clan occasionally harvested a little coffee to provide money for particular needs, but most of it was left untouched. No further maintenance was done. When the Higaturu Council and its supervising officer, Mr. Normoyle, strongly advocated planting by individuals rather than groups, a number of people took seeds from the community garden and established their own individual coffee plots. [435] [462] [464] [578] [433] [434]

When the Higaturu Council erected a coffee factory in Popondetta late in 1959, councillors were encouraged to maximise coffee production in their areas. The Ongoho councillor (who is a half-brother of the ex-village constable)(1) was able to persuade some people to start harvesting again. On this occasion each family was to be allowed to harvest, process and sell whatever coffee its members picked.(2) People were to be allowed to pick anywhere and at any time. No maintenance was done except on one occasion at the beginning when all people worked together to clear the undergrowth. This system [578]

(1) When the council was formed all village constables were compulsorily retired. [625]

(2) The produce was still taken to Popondetta on foot. The Higaturu Council provided a tractor and trailer to collect coffee from various points along the main Saiho-Popondetta road, but Ongoho was about eight miles from the nearest point. As a flat rate of one penny per pound was charged for the service, the Ongoho people did not use it. They used to leave Ongoho at dusk and carry all night and arrive at the factory early the following morning. [489]

245 coffee gardens.[1] About 320 trees were planted on the Sivepe plot. It was not government policy to encourage community gardens, but those who made the garden were under the impression that this was the wish of the officer who suggested that the people in the villages plant coffee.

Clearing of this 'company' garden was carried out jointly by members of all Sivepe clan branches. A part of the land they used belonged to a Timumu lineage and the rest to a Jegase lineage. [G5] While the trees were maturing an agricultural extension patrol told them to stop working the gardens jointly and to make new individual gardens. In 1957 a Cadet Patrol Officer gave the same advice explaining that disputes would otherwise occur about the distribution of income from coffee sales.

[G13] It was decided to divide the Sivepe coffee along pre-existing lineage boundaries; one part was taken by a man of Hajejopa lineage of Timumu clan, the other by a Seho man (e38) who is the husband of the only surviving member of the Jegase lineage, Sesewopa. Even after this had been done these men claim to have shared the small amount of money from the first sales with the other planters.

Since the division the Timumu man has indicated that he claims the land as far as a creek which formed the outer boundary of the village plot on the Seho man's side, i.e., that he believes all the coffee was planted on his land. Even though the Seho man applied in 1960 to have his section on his wife's land registered with the Higaturu Council, he now intends to give it to the Timumu man and to plant new coffee on his own land.

The other 3 gardens were planted on a household basis in 1957.

Two men from other clans have planted coffee on the land of Jegase men in Sivepe. One garden was made about 5 years ago by a Seho man from Sivepe (e48) on the land to which his father had planting rights. The land had earlier been held by a man who was the wife's brother and sister's husband of the present planter's father. The holder of the residual rights passed them to his classificatory sister's son from Berekipa lineage who some years ago used the Seho man's land for subsistence gardens.

The other garden is on the land of a Bebehupa man and was made by his father's sister's son, an Usohu man from Binduta. The Usohu man was given rights to plant sago and coffee because he had been named after the landholder's father's father.

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[1] In August 1955 an area 30' x 40' was reported to have been cleared and planted with shade under the direction of the Village Constable.

245 [654] At the time of our survey no one who had a coffee garden had taken any steps to grow cocoa although one man claimed that as a result of a recent visit by an agricultural extension patrol he now proposes to interplant cocoa[1] with the rubber which he had planted, and another who already has coffee claims that he will plant cocoa in one of his subsistence gardens when it is finished. One man was given cocoa seedlings by some kinsmen but he has made no preparations for transplanting them from the nursery.

Only 2 men have made even minor extensions to their original small coffee gardens. In 1961 one of them added about another 70 Leucaena shade trees. The other has extended his coffee plot with 60 young shade trees.

[139] [654] Lowlands coffee (Robusta coffee) is grown and is well suited by the soils and climate. All planters have access to the dark friable loams (mume) of the area (but 1 plot planted on an abandoned subsistence garden became waterlogged). Crotalaria is used as a shade tree but Leucaena glauca is now established in mature gardens. The shade is planted in lines and the sites for the coffee trees are staked out. Some planters, with assistance from agricultural fieldworkers, arranged these on about a 10 foot triangle but the density of trees varies considerably from one plot to another.

Coffee seeds are bought from the agricultural station or are sometimes given by a neighbouring planter. When the shade is established, they are planted in a nursery sheltered with bush materials. The ground is turned with a bush knife and the seeds covered with a layer of soil. Until transplanting an occasional weeding is all the further attention they receive. Seedlings which have grown to a height of about 2 feet are taken to the shaded lines of stakes and transplanted. No root pruning or preparatory holing of tree sites is carried out. The growers claim a high percentage of strikes from the seedings but since few of the recommended transplanting procedures are followed the vigor and yields of the trees are probably reduced.[2]

For the first few months the ground near the seedlings is weeded and later weeds are cut when growth becomes rank. In theory the owners prune the plots about once a year wherever shoots are too long but the incidence of tall trees and suckering shows that more care could be taken in this aspect of husbandry. [654] Arch-pruning (agobiada) has not been tried on any of the sample

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[1] Extension officers usually do not encourage the planting of cocoa instead of coffee in this area.

[2] See Cole 1960.

245 plots but agricultural officers intended to launch a campaign in
[654] the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

[221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 Not all receipts for sales of coffee from the sample plots had
[434] been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organisation of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepo and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepo and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasua and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepo neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepo. The growth of the
[245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

178 individual mobility among the mountain Orokaiva. We especially
36 doubt the generalization that the introduction of tree crops
166 induces the fragmentation of villages into small 'bush settlements'
241 which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

●[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

Horton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 Horton expresses a view widely held among government officers[3]
C14 that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

[179] [654] [383] However, different proposals had already gained wide currency; whereas the Administration had previously refrained where possible from participating in the local development of rubber, agricultural extension services have been expanded in response to widespread renewed interest among the villagers and Department of Agriculture staff have recently established a factory near Ombisusu village on the scale considered suited for economic viability. It has an optimum capacity for the production of sheet rubber on smallholdings of 20 to 50 acres under high-yielding trees.

[425] Part of the programme at Ombisusu has been the redistribution of land for development as individual cash-crop blocks similar to the Yega cocoa project.[1] Demonstration of this development has undoubtedly further stimulated local interest in rubber. It is calculated that the problem of capital for investment in such a factory, a figure of the order of $240, might be met in the absence of sufficient village entrepreneurs by the co-operative ownership of facilities by a small number of neighbouring growers.

On the other hand the European who has been buying rubber from the villages believes that 6 smallholders, for instance, each with 6 acres, could be expected each to receive a net annual income on present prices of about $360 (after repaying a loan) only if the producer were to tap daily for 310 days a year on a semi-commercial standard and produce good quality sheet rubber without direct supervision from a fully qualified officer.

He envisages instead a pilot project which would involve the planting of about 100 acres with high-yielding seed at Sasembata, for instance, where the project 'would be partially financed by some 34 rubber areas now in bearing' and, having little overhead cost, 'could afford European supervision by subsidy from the Administration'. The new land might be made available on a co-operative basis; this should be developed by labour receiving 'a minimum basic wage and the unpaid value be credited as units held in shares', whereas the villagers tapping existing stands could sell the latex at the project centre on a poundage basis.

The Department of Agriculture's budget-planning, incorporating the possibility of small loans to producers, has been carried out on the understanding that all smallholdings should be held and worked by an individual or nuclear family.

[435] Establishment costs might be reduced if the building standard were to be lowered judiciously, if standard agricultural equipment

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[1] The participants in these schemes were reported to be keenly interested in the possibility of receiving registered title under the Land Tenure (Conversion) Ordinance, 1964.

Two largely unrelated agricultural systems are practised side-by-side, with cash cropping (or the alternative cash-producing activities) utilising labour time surplus to the requirements of the subsistence sector. Productivity in both types of production is low and, furthermore, any expansion in cash cropping is not necessarily paralleled by an increase in productivity or reduction in subsistence agricultural activities.

The Administration's extension policy is concerned both with 'raising the level of subsistence in the villages' and 'introducing the economic means of supporting a higher standard of living (DASF 1959). While such a policy might promote development with the least possible risk to the producer, it has a direct bearing on both the quality and degree of individual involvement in commercial activities.

One agricultural extension officer has noted that 'The subsistence farmer's involvement in cash-cropping has...added to the complexities of his decision-making and lays increasing emphasis on his role as a farm manager. He now has to make more complex decisions and choices about what to produce, how to produce and how much to produce' (Reed 1966). Individual specialisation is, effectively, discouraged because the mechanism is not being developed for an exchange of subsistence produce which might permit some people to concentrate exclusively on cash crop production. Problems of a lack of technical knowledge and equipment are intensified in situations where cash and subsistence cropping are pursued simultaneously. The essential homogeneity of the village remains therefore largely unimpaired. The nature of the people's contacts with the external economy and the expatriate community only serves to reinforce it. These contacts are few and tend to be formal and innovations only permeate through with difficulty. Villages tend to be isolated from the main centres of expatriate activity and, in consequence, people find it difficult to participate in those cash-producing activities, such as wage labour, which provide a regular source of income. The basic functional discontinuity between Orokaiva village and expatriate settlement tends to sustain a situation where money is used primarily to exchange 'exports' for 'imports' and has little impact on the rest of the village economy; while the apparent control which expatriates exercise over all successful economic diversification and other developments tends to discourage initiative within the village.

The problem of stabilising the world market situation for cash crops, or at least of cushioning the producer from the price fluctuations, cannot easily be resolved, but some of the other problems are amenable to direct intervention.[1] Given their long and mixed

[1] As exemplified by the apparent success of the Ombi-Tara scheme (see Morawetz 1967).

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Postscript

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Since this report was prepared, we have received news of some interesting developments bearing on the above conclusions.

In 1967 cattle-rearing projects were established under Administration sponsorship and guidance in several lowland Orokaiva villages, including Inonda. The Inonda people have sown and fenced several acres of pasture for ten cows, all of which are calving. The need for cash to buy fencing materials has stimulated several subsidiary projects. Peanuts, which are sold to the Department of Education, are grown on three acres of grassland ploughed by a hired tractor. Three families have piggeries and one earned $108 from one sale of young pigs during 1968. Another family is starting a chicken farm. Money is also raised from sales of copra, fish and food garden produce. In addition, six of the villagers and two kin from outside have subdivided an area of forest land into 20-acre blocks which are being prepared for planting cocoa and coconut trees. Our informant in Inonda acknowledges the great help received from the Department of Agriculture in encouraging and assisting in these projects.

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It seems that the cattle projects were established in villages containing people known to the Administration for their entrepreneurial abilities. It is not known whether similar developments are taking place among the Mt Lamington Orokaiva.

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

Genesis of the Yega Scheme

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The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

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On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was re-opened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in inter-tribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Hixon Kairembora, who fully approved of the cocoa project.

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The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

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Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

245 half acres of coffee or cocoa. This would yield no income for
434 the first four years and a maximum of £100 per year thereafter at current prices. This assumes an absence of land problems and crop disease. Even so, the prospect must be heavily discounted because of its uncertainty. Wage labour is now available
[464] to a limited extent at a rate of £150 per year in town areas and
[465] about £75 per year in rural areas.(1) At the time the coffee was planted, paid employment was scarcer and wages much lower.

401 Capital: Almost no capital is used in primary pro-
245 duction in Inonda. The few tools needed for small scale production are easily acquired from current income, the land is not an
[654] item involving monetary cost, coffee seeds are available from neighbouring gardens and cocoa pods are supplied by the De-
[498] partment of Agriculture at nominal cost. One man in a neighbouring village has a coffee huller in which the Inonda people have small shares, but as the Orokaiva Coffee Growers Society (to which the Inonda growers belong) provides for all other processing, there is no need for any other equipment in the villages. Although the introduction of capital may increase output, considerable increases in output are possible without it, and capital cannot be regarded as a serious limiting factor in Inonda cash cropping at this stage.

164 Health: During the period of the survey about 7% of
461 time was accounted for by sickness and caring for the sick, but details of sickness were not recorded for those who were in mourning in their houses. The total for the period is estimated at 10% of all time accounted for. From superficial enquiries malaria seems to be the main cause of illness but other common ailments seen during our stay were filariasis, gastro-enteritis and influenza. The suitability of the diet for sustained hard work is not known, though it was noticed that men seldom work two days in succession on heavy labour like bush clearing (though they performed regular heavy work for wages). On several occasions when the nights were particularly cold the people got up shortly after midnight and sat around fires for the rest of the night to

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[466] (1) Indentured labour is paid less, but relatively few Orokaiva are prepared to accept
[511] indenture. Direct comparison of gross incomes from cash cropping as against urban employment ignores the fact that food and housing costs are much higher in towns.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
[427] year lease at an annual rental of $7.95. Here he has planted cocoa and coconut trees.

At any time during his twenty years' employment D could have returned to his home area and planted cash crops on the ample family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[425] decided to undertake cash-cropping; he has now planted over 3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a factor differentiating entrepreneurs from villagers, but the availability of land other than that held under customary tenure may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6)[A] they have more extensive gardens, as shown in the following table.

Table 1

Area of land under cultivation for food gardens
(acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet com-
[592] prising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo.

** Estimated, not measured.

[361] *** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone.

A. [Table 6 appears in Category 461, p.19--Analyst]

241 Later again, in line with an agricultural officer's recommendation,
472 he encouraged each son to plant individually. He proposes that his
592 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of [598] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
24 (though it was not intended for hiring labour). With the loan
464 and gross profits from his store (see p.11 ff.) he has hired a
[654] total of seven workers at various times. As with the labour occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well [466] be due to the fact that the employer-employee relationship, with [591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not [621] successful, in recent years A has frequently arranged for the [602] people within his hamlet (his children, his brothers and their children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

Chapter 1

Introductory

657 The first legislation aimed at encouraging Papuans to engage in
654 cash cropping was introduced in 1894 by Lieutenant-Governor MacGregor
241 six years after the beginning of the British administration in Papua. Nevertheless, policy was mainly directed towards the promotion of European enterprise until after the 1914-18 war, when the difficulty of attracting European settlers to Papua caused a shift towards promotion of indigenous agricultural development.[1] At first communal cash crop gardens were promoted but as the disadvantages of this system became known,[2] emphasis shifted to encouraging each family to cultivate an area of cash crops separately. Cheetham (1962:68) states that this policy was clearly established by 1956.

657 An ad hoc committee was established in November 1956 to consider
423 the conversion of land from customary tenure to individual freehold title.[3] The committee submitted its report in 1957 and there followed a period of research and discussion, culminating in the policy statement on land tenure in the House of Representatives on 7 April 1960 in which the Minister said:

> (1) The ultimate objective was to introduce a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
>
> (2) Only the central Government...may issue and register land titles.

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[1] On the history of official policy on agricultural development see Crocombe 1964a.

[2] See Crocombe 1964a:33-7.

[3] Land under 'customary tenure' includes 97 per cent of the total area of Papua-New Guinea. The Administration has purchased 2.5 per cent of the total area, and non-indigenes have freehold title over 0.5 per cent.

Post-war tenure innovations in the Northern District

659 The Higaturu Local Government Council land registration scheme,
654 begun in 1956, was one of the earliest attempts to rationalise
423 tenure in the Northern District and to increase agricultural productivity. Under this scheme all lands on which cash crops were being planted were to be registered by the Council after a survey by chain and compass. The individual in whose name the land was registered could transfer it or nominate heirs to it without reference to the clan or any other group. The scheme was superseded by the tenure conversion legislation of 1962-63.[1]

A second post-war tenure innovation in the Northern District was the Yega agricultural scheme[2] under which in 1960 a group of villagers agreed to set aside a portion of uncultivated land for use by individual members of the group. External boundaries were agreed upon and individual blocks were marked out and plotted. The 1962-63 land legislation has enabled persons holding title under native custom to convert to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963 and on 16 December 1965 fifty-six applicants from Yega were granted individual titles to blocks averaging ten acres in area (Smith 1965).

No conversions were made under the 1962-63 legislation until late 1964. Following a recommendation from the Land Development Board it was decided that conversion under the new legislation should be confined in the first instance to the Northern District in order to test and refine procedures. Applications for conversion were being received at a rate of over one hundred per month in the Northern District during 1965. At the end of December 1965, thirty-four tenure conversion schemes[3] were under way in the Northern District, covering 1,725 blocks (i.e. farms) and 33,566 acres. By 10 February 1966 Land Titles Commission hearings had been completed for five schemes, covering 219 blocks and 4,328 acres.[4]

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1 (continued)
361 themselves in small groups over the face of the country is growing in the land.' Feinberg (1956) suggests that the tendency to spread in this way is common in recently contacted societies.

1 For details of the Higaturu Council registration scheme see Crocombe and Hogbin 1963:89-96.

2 For a detailed discussion of the Yega scheme see Dakeyne 1965.

3 Each of which comprised up to sixty or more blocks (each of which would become one farm).

4 In addition, 120 blocks (3,148 acres) had been formally surveyed; 269 blocks (2,960 acres) were awaiting survey; and 596 blocks (12,570 acres) were awaiting investigation by officers of the Department of Agriculture.

654 Planting of cash crops on converted blocks has proceeded steadily. The forty blockholders at Ombi-Tara planted an average of three
657 acres of high-yielding rubber each in the first fourteen months.
311 At Barisari fifty-six blockholders have planted an average of two
241 acres of coconuts in fourteen months and this was expected to increase to four acres by the end of 1966 (Williams 1966:6). Blockholders at New Warisota have planted an average of three acres of cocoa after eighteen months. By contrast, fifty-seven farmers at the Yega scheme have averaged slightly less than one acre of cocoa planted in more than three years.

654 A rough attempt was made to estimate the value of the time,
657 materials and services expended on the conversion schemes in the Popondetta area.[1] This worked out at approximately $8 per acre[A] or $162 per block.[B] This suggests that the growth of conversion throughout Papua-New Guinea on a sufficient scale to have a significant economic and social impact will depend, inter alia, on the development, with experience, of less costly technical and administrative procedures.

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[1] See Appendix A.[C]

A [Corrigendum: For $8 read $6--Analyst]
B [Corrigendum: For $162 read $116--Analyst]
C [See Category 423, pp. 38ff.--Analyst]

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621 614] Ombi and Tara contain two clans, Mumu and Kusi. The Mumu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Mumu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]
B [See Category 133 pp. 49ff.--Analyst]

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on
[654] loan from the Department of Agriculture. The baling press was provided on permanent loan by a local planter.

[402] On 27 October 1964 an Ombi-Tara Village Savings Account was
[454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
614

Allocation of blocks

659 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kuei clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kuei land, reportedly because of a shortage of Mumu land. The Kuei clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Semarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August 1964. For clearing the villagers worked in several groups, with
[311] each group spending one or two days on the block of each of its
[654] members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1955, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Onondа which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
[726] re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
● 654 and over the next two years cut down a large
area of forest and planted shade trees and
657 young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

245
179 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[657] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
[66] of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accom-
592 panied in almost every instance by their wives
166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[197] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949, "Co-operative Rumours Kokoda Sub-District."

625 731 excursions. This was, however, an experience of short duration and, once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] [571] With regard to interpersonal relations, the evacuation set up a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 571 The Orokaiva are not often observed to work in groups; from the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to [342] [177] describe this pattern as Individualistic. After all, every house was in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 654 571 Unwittingly, the Australian government has tended to make the Orokaiva more oriented towards group work than he was before. Road work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

654 The rubber plantings followed a quota established for each village;
177 in practise, a village man would make one of his garden plots available
571 to the community at large and all the village trees would be planted
476 there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

474 It is paradoxical that the Australians, after first encouraging
177 this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the
241 eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966).
[777] It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers" consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant) allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wasata and each man took his own rice back home, giving a

plus other amounts of unknown size--enough for the projected establishment of a trade store. Rimoldi's report suggests that cooperation between the villages for this project was difficult to attain; the mission teacher who was to coordinate the project withdrew. (1963: 107-108) After Rimoldi left, one of the Sivepe clans (Jegase) evidently went ahead with some scheme to open a trade store at Sivepe and lost all its money. There was some dishonesty on the part of someone, but I did not try to explore this. When I arrived, the plan to open a trade store was still alive, but people did not like the idea of its being operated by a clan; one of the families of the Jegase clan was playing with the idea of raising some money and starting one. It seems likely that the savings accumulated by the Timumu clan, to which Rimoldi refers, were lost along with the Jegase savings.

In 1966, two group savings accounts were in operation. People had no project in mind for which these savings were intended, but it was felt to be salutary to have savings because there would be no chance otherwise, as I was told, to reach equal status with Europeans. One of these savings accounts was for the whole village, and this is probably the one opened in 1961, referred to by Rimoldi. In 1966, when these bonds matured, the Seho clan leader brought all the money home in two-dollar bills and handed these to each contributor at a meeting. Most of the contributors handed their money back for later investment. The second savings account was operated by one clan, for the purpose of its own bride price and similar payments; as it was clan money, the facts about it were secret. The village fund contained $158.

The only cooperative effort known to me at Inonda was a regular arrangement by which vegetables grown at Inonda were carted to the Ambi Hospital and sold there, in 1967. Towards the end of 1966, some vegetables were sold in the same way to the government in Popondetta. In this case, the proceeds were shared between individual growers. The arrangement was the result of contact between the man who had become a government driver and the appropriate authorities. The carrier was an affine.

Finally, a notable aspect of social organisation in the post-eruption period is the emergence of leaders whose authority rests on two sources: status in traditional terms and status conferred by Australian-sponsored organisations. The village constables could sometimes be so classified, at least superficially. Only on rare instances, however, were they champions of Western values who sought to influence the minds of the people towards acceptance of these values. They did not ask their people to accept Australian organisations as a source of authority (if Weber's definition of this term be accepted) but only to recognise them as an effective source of compulsion. The people of Sivepe, as well as Hohorita werevery much aware that the position of the councillors and committees, successors of the village constables, was very different. The councillor's job was to preach the doctrine of the "new way;" people would tell me how bored they

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepe, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garombi, a neighbour-village to Sivepe. Here traditional and modern authority were vested in different persons, whereas in Sivepe both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepe and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepe were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepe; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepe was wholly Christian. The most senior man in

CHAPTER IV: Contacts with Congeners

Section 1: Kind and Frequency of Contact

731 628 Because of the circumstances of relocation of the Orokaiva, one cannot generally study relationships between persons who were resettled and persons who stayed in their old locations; the old locations were in general restricted areas which remained uninhabited. For a short period, the population of Sivepe was split into one half resettled on their old lands and one half resettled at Awala. If Awala had offered a viable alternative to residence at Sivepe, an interesting interrelation between the two groups might have developed. As it was, the Seho people who stayed with their clansmen at Awala, established gardens at Sivepe and soon preferred to return. Likewise the Sewa people who escaped to Inanda chose the return to their own lands, even though there was no shortage of land at Inonda. While the Seho clan group stayed at Awala, they made frequent visits to Sivepe, but their children went to school at Awala. Once Old Sivepe was built and gardens were established, the Sivepe people made a large feast for Awala, to express gratitude for the hospitality received. (1954)

Section 2: Encouragement of Contacts

731 ? 654 From the first week of evacuation, both government officers and village constables and other community leaders were well aware of the homesickness of the people and their desire to return as often as possible to the villages they had left behind. The camp authorities at Ilimo were only too well aware of the profound shock and despondency of the people and were ready to allow brief expeditions to home villages as long as this could be done without creating fresh conflicts. Hence a policy was developed of permitting return for short visits under supervision of village constables and involving only a limited number of people. Men only were allowed to go home, as the authorities were afraid (not without reason) that if families went back to the villages it would be hard to get them to return to camp out of the restricted areas. In case of further eruptions, the administration of the camps would naturally be blamed. It seems very likely that the initiative for the organising of these expeditions came from the community leaders. Village constables would request permission from Mr. Kaad, mostly because people put pressure on the village constables.

654 731 After resettlement in Awala and other villages, the government made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 823 In earlier chapters, I have already drawn attention to the widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family [794] land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 177 Naturally, in the circumstances, people did not feel any pride or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe [438] was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garombi which still [626] had its pigs. During the bargaining, a Garombi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Garombi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

731 657 the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year. Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

452 657 Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

245 652 The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself 245 474 purchase coffee but when the Higaturu Local Government Council was formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later [691] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in comerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold [439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Garonbi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

654 242 The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

654 and local field trials are being carried out on the volcanic soils of the Northern District.

242 Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural 242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve [87N] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The 435 violent fluctuations in price for this product do have a somewhat 245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

657 A good deal of development work has been left for the Higaturu 423 Council to deal with. I have already mentioned that government officers attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were 653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.) A Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

spite of this vast differential, the mission continues to recruit certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a grant-in-aid to the mission in respect of all mission teachers who held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools. Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

In 1967, the government brought in an education tax which was expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Ssembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago, thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[199] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

773 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p. 22-B]

472 554 153 marketing or the more intricate techniques of production. It does suggest, however, that they have a sufficiently clear conception of the way to achieve the goal (and the way is more important than the goal itself) to enable them to organise and to act. It is apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 423 [428] [472] Most Orokaiva men established their cash crops on customary land to which they have acquired rights by inheritance from their fathers. None of the entrepreneurs did so, though all claim that they could have done had they wished but deliberately chose not to. Each stated that the reason was to avoid claims by kin to their land, produce or income.

241 423 472 A had cleared bush land and planted coffee at Garara where his close kin had been permitted to resettle in the late 1920s. Though the host clan did not mind the newcomers planting food crops they objected to cash crops and forced him to abandon it. About 1930 the newcomers purchased about 2,000 acres of virgin bush land at Kapurahambo from the clans of Soputa. The transfer was accompanied by a series of feasts and dances and the distribution of traditional valuables. The land was divided among the buying group, A and his two brothers being allocated an area of eighty-one acres on which they have since planted cocoa and coffee. A has applied for registration of his land under the Land (Tenure Conversion) Ordinance [656] 1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe and Hogbin 1963b:72-3). He subsequently improved the security of [656] his title by registering this land under the Higaturu Council land registration scheme, a transitional scheme, now superseded. He has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his [432] cash-cropping, however, he chose to use two adjacent blocks of a total of 106 acres which had been purchased by the government for European settlement in the 1920s for 54 pounds of tobacco, one tomahawk and one knife. The European lessor planted coconuts but abandoned the property before the second world war. Though legally

[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT

(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages.

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/9

657 REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966–JUNE 1967 (*abridged*)

Revenues		*Expenditures*	
Tax: 2000 males	$16,000	*A. Personal Emolument*	
1000 females	1,000	Council President	$ 156
Truck Hire	13,000	Council Vice-President	108
		Councillors	1,560
Aid Post Orderlies Subsidy	1,250	Exec., Fin. Ctee	108
		Council Clerk	1,170
Water Supply Subsidy	3,320	Messenger	390
Aid Post Subsidy	240	Landrover Driver	500
		Truck Drivers	1,450
Adult Education Subsidy	780	Agric. Fieldworker	234
		Market Manager	260
Miscellaneous	2,900	Aid Post Orderlies	2,500
Total	$38,490	*Total*	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,686
		Total	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health, Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 villages)	900
		Roading (3 projects)	6,070
		Other Items	2,099
		Total	$21,434
		Grand Total	$39,212

Council were road building, improvement of water supplies, building medical aid posts, maintaining produce markets at Popondetta and Saiho and the operation [651] of trucks to provide extra revenue. Most revenue was derived from a head tax of $8 per annum for every adult male and $2 per annum for every adult female. The central government paid a 50 per cent subsidy on certain Council projects. [474] [245] Between 1959 and 1962, the Council also ran the coffee processing factory operated for Orokaiva producers, but this was transferred to the control of an

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this
437 trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 9 Dr. Waddell has provided a detailed statistical table of the geographical
438 distribution of subsistence produce (Waddell and Krinks 1968:218). This table
437 provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 12 The general subject of Orokaiva economic development since 1951 is
872 very fully covered in numerous bulletins published by the New Guinea Research
797 Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table
657 of public expenditure in the territory of Papua for the years ended 30 June 1961
648 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
179 on as a gift to the Orokaiva.

829 Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
[123] Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total
437 work output of the worker for the period he is on the job. The Orokaiva,
177 however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the ***baksheesh*** system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the ***baksheesh*** has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
177 *l'individualité du donateur.*' It rests on a notion that both worker and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

employer give something in excess of their contractual obligation. These services and gifts over and above the formal contract are a form of social exchange. Both parties seem to be expressing affection and solicitude for the other. The worker does this by special care for his employer's interests; the employer does it by 'baksheesh'. The latter are never just extra handouts or cast-offs, though these may also be given. They are usually responses to appeals by the worker who describes an emergency that has arisen for which he requires some object of usually quite limited value: old batteries, a little kerosene, etc. It is the employer's solicitude in response to a claim which gives these objects their special value (though, of course, they have some monetary value as well). This social exchange can be expressed in the following diagram:

MODEL 6

This model represents the ideal norm of the relationship, as seen by the Orokaiva. He is well aware that the reality often falls far short of the ideal norm: not all employers show affection and solicitude. It is, however, a more serious flaw of the model that the white employer would totally reject it; his ideal norm of the employer-employee relationship is a very different one that does not involve social exchange (or baksheesh) at all. There is, in fact, a conflict of ideal norms between employer and employee. The actual arrangements on the plantations, which I have briefly sketched, are a sort of compromise or accommodation between the two conflicting concepts of employment: the employee accepts the fact that baksheesh is usually rather unwillingly and rudely handed over, as being a regrettable white man's custom; and the employer somehow makes room for a minimum of baksheesh on his balance sheet.

The fact that the conflict of values remains unresolved in this relationship does not vitally threaten plantation development, but similar conflicts are not so easily sidestepped in the Orokaiva's relationship with government and the mission. Neither community development nor religious conversion will be successful without some ideological commitment on the part of the receivers of the message. Obvious though this statement is, it is worth while to spell out its implications here, as it applies to the implementation of government policy.

Policy is formulated in Port Moresby and promulgated by the Administrator in the form of ordinances and regulations. Instructions on the enforcement of these are prepared by the Department of District Administration in Port Moresby and interpreted, in the light of local conditions, by the Department's officers in Popondetta, the administrative centre of the Northern District. But how can these ordinances and regulations be enforced in the jungle by a very limited number of patrol officers? Until 1956, a rather simple procedure was used. The patrol officers appointed a large number of suitable Orokaiva as village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

constables, instructed them to report any trouble, visited the villages, looked for evidence of non-compliance with instructions, punished delinquents, left further instructions with the village constable and threatened further punishment. The trouble with this procedure was that the changes it could produce were of rather limited scope. All the Orokaiva needed to do to keep the patrol officer satisfied was to attend to things that could be seen on a visit (the state of the roads, houses, latrines, the grass in the villages, the quota of obligatory rubber trees, etc.) and to avoid the kind of trouble the village constable could not help reporting (murders, serious dissensions).

Social and economic development, however, depends on the communication of ideas, on encouraging regular schooling, use of medical facilities, cash-cropping, the development of markets, participation in local government, preparing the young for careers outside the district, encouraging capital formation and entrepreneurship, improvement of agricultural techniques, land titles, and so on. In the 1950s, when the government became deeply interested in these objectives, it created local government councils, abolished village constables, and rather forcefully changed its emphasis from the enforcement of compliance to the inducement of collaboration. Some of the Australian officers told me they found this shift rather frightening: if there was no jail for non-compliance, how could one be sure that the Orokaiva would take any notice? On the other hand, Orokaiva conservatives found the shift in policy frightening for the opposite reason: as they told me, the village constables left Orokaiva social life virtually intact, except that occasionally someone would be sent to jail for a while – a mere ripple on the surface of community affairs. But since the government councils were established, and the councillors came round regularly making long speeches, and since the new institutions listed above had actually been demonstrated to be useful, the foundations of the old way of life were beginning to be undermined.

With the help of the councillors, the government's ideas were certainly being communicated, but hardly ever by the government's own officers.[4] The only white officers who regularly visit villagers are young, inexperienced patrol officers, dependent on interpreters. Speech-making is only a minor part of their role and not the most successful. All the councillors I have heard, however, are master propagandists. As the government's aim is clearly the communication of ideas, it would be hard to find a more efficient method than the present one, where the government communicates to the councillors and leaves the latter to do the rest.

An interesting and somewhat unusual exchange cycle results from these transactions. The exchange partners are the government and groups of Orokaiva villagers. The objects of exchange are information (emanating from the government) and respectful attention (on the part of the villagers). I use this term 'respectful attention' as the nearest translation of Orokaiva *ingari* which means 'to hear', 'to understand', 'to follow advice' – and comes closer than any other word in the Orokaiva vocabulary to the notion of obedience and compliance. The exchange cycle may be expressed in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 7

The elements of mediation are entirely indispensable in this relationship. Unless there is development activity, the government will feel that the relationship has broken down. Unless the councillors intervene, the government's information cannot be communicated.

Both the villagers and the government find this exchange cycle highly precarious. It is precarious for the villagers because social exchange, for the Orokaiva, implies a state of competition between the partners. It is unprofitable to engage in social exchange with a partner unless one can hope to equal him (and even better him) in wealth and power. This desire to equal (and defeat) the Europeans competitively is an ambition of which informants spoke to me occasionally when I came to know them well. It was quite clear to the Orokaiva that they could never achieve this objective by growing coffee on small village plots. Hence, they could not regard the activity advocated by the government as being worth engaging in for its own sake. The question facing them was: will this activity serve our ultimate end of achieving equivalence or victory? The term 'development activity', as used in model 7 implies that it is thought to serve this ultimate end.

I demonstrated in the previous chapter that all elements of mediation are essentially magical. The Orokaiva similarly regard development activity as magical. In response to this notion, government officers sometimes evolve rules of behaviour that look remarkably like magical formulae. One officer in the Northern District invented a regular weekly calendar which he thought the Orokaiva should follow. Certain days of the week should be set aside for coffee growing, others for growing and marketing extra garden crops, others for cleaning and improving the village, and so on. I heard the officer proclaim this calendar; later, I heard a councillor proclaim it in Sivepe village. It was listened to with respectful attention, but afterwards ridiculed by the village men. The formula was rejected because it was thought to be useless. There was, of course, a plethora of such formulae circulating as many officers thought up their own, and most officers were rapidly transferred from one job to another. It was natural, therefore, for the Orokaiva to become selective in the formulae they adopted. Also, experience showed them that the formulae did not always work.

The difference between this modern magic and the traditional varieties lies in the greater uncertainty of the prescription. The Orokaiva habitually use an experimental approach to magic: if one medicine does not work, then try another. But all traditional medicine has at least an impeccable source: it was given by the ancestors. The magic of 'development' (money, Western technology, Western power) was, in Orokaiva belief, ultimately derived from Jesus

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 Christ and perhaps other supreme sources of which they have no knowledge, but
●657 these ultimate sources mostly seem inaccessible to the Orokaiva; the people
[789] know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidently, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 It may thus be said without hyperbole that community development among
657 the Orokaiva has a mythological charter – namely, the Christian religion as the
797 Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 But the second mediating element in this relationship is the councillors,
657 through whom the government's information must pass to reach the people.
623 They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is
[191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some
[554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[3] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8

Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

Origins of the System (1894 - 1918)

From the beginning of British administration in Papua in 1888, it was policy to encourage Papuans to engage in cash cropping. MacGregor, the first Lieutenant-Governor, advocated cash cropping to those villagers he met in his tours of the country, but such incidental advice by an intinerant official was probably not very influential. The first legislative provision to promote cash cropping was a Native Regulation, introduced by MacGregor in 1894, which provided that magistrates could compel indigenous people to plant coconuts on penalty of a fine.(1) This was extended in 1903 by a regulation which provided for compulsory planting of other economic trees. Native agriculture was not, however, the main plank of agricultural policy for although government staff were trained to "treat natives justly" they were directed "above all to prepare the country for development by Europeans. There is not, and there has not been, any other policy".(2)

Planting under the regulations took place slowly, and only in areas which were under the close supervision of magistrates. It appears that there was little planting of cash crops by Papuans other than under the compulsion of the regulation and at this stage it does not seem to have been a matter of concern to the Administration whether the people planted individually or in groups. It has not been possible to determine which pattern was most frequently followed in practice, though the examples noted in the literature mostly involved planting by village or clan groups rather than by individuals. Coconuts were the main crop planted under the regulations, but rice, rubber, kapok, peanuts and fruit trees were tried in smaller

(1) Native Regulation No. 2, 1894. Miles (1956: 318) regards MacGregor's technique for promoting native agriculture as unusually enlightened, but in fact it seems to have been almost universal in the Pacific at that period, and MacGregor had become familiar with it while serving under Sir Arthur Gordon in Fiji. Similar regulations were introduced by Germany to Samoa and New Guinea, by the United Kingdom to Fiji and the Gilbert Islands, by New Zealand to the Cook Islands and by Holland to Indonesia.

(2) MacGregor to Lamington 4.10.1898 (quoted in Healy 1962 : 84).

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quantities in some areas.[1]

After the turn of the century less emphasis was given to the policy of expanding indigenous plantings of cash crops and instead Papuans were persuaded to work as labour on European plantations. In 1906 the Lieutenant-Governor stated that not only was staff inadequate to enforce the 1894 regulation, but that where it was enforced the resultant income attracted traders whom he felt to be a bad influence on the Papuan people. Employment on European plantations, on the other hand, was considered to be beneficial.[2] This policy remained until after the first world war, though some Resident Magistrates also applied the regulations in order to extend native plantings.

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(1) For a more detailed study of the application of these regulations see Miles 1956 : 319-23.

(2) Territory of Papua Annual Report (hereafter abbreviated to P.A.R.) 1905-6 : 9.

Native plantations as the mainstay of agricultural policy (1918 - 40)

657 179 After the 1914-18 war, a shortage of labour, low produce prices and high shipping costs made it very difficult to attract European settlers to Papua. The emphasis of agricultural policy was therefore shifted and indigenous agriculture was seen as the only hope for the future. "If we cannot attract capital to develop the Territory", the Lieutenant-Governor wrote, "we must develop it without capital - that is, by native agriculture" (P.A.R. 1921-2 : 6). He saw two particular advantages in native agriculture over European; it did not require hired labour and it did not require large amounts of capital. It was clear the country would not be developed by the few European plantations then in operation (with a planted area of about 61,000 acres in 1923) and for the next decade at least Murray gave great emphasis to the development of "native plantations".

245 249 657 [466] In the Northern District[1] there had been little planting under the regulations since the turn of the century, but with the outbreak of the first world war the Resident Magistrate gave priority to expanding output by the compulsory planting of coconut, rubber and citrus trees, and 10,000 coconut and other economic trees were planted in 1914-15 under the direct supervision of patrol officers (P.A.R. 1914-15 : 49). By 1921 there were 46,404 coconut trees in the Orokaiva area but over half (25,642) had been planted within the previous five years. Almost all the rubber trees had been planted in the previous five years (P.A.R. 1920-1 : 48-50).

657 241 Although the regulations did not prescribe that planting was to be either by individuals or groups, in all the post-1914 instances we are aware of in the Orokaiva area, each village or cluster of villages was in fact directed to plant as a

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(1) The Orokaiva area was included in the Buna and Kokoda Districts of the Northern Division until 1909, then in the Kumusi Division until 1920, and in the Northern Division (later termed the Northern District) since 1920.

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme.

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3)

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop.

(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita.

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963.

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P.A.R. 1921-2 : 16).

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land.

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's.

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

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657 people probably preferred it anyway. He gives no evidence for the latter assertion. It seems equally possible that officials of the day considered the Papuan people to be "naturally" adapted to communal patterns of work.

The first action to implement the ordinance in the Northern District was taken in 1921 and 1922 when inspections were made by officials "with a view to plantations being established of such economic plants as will suit the soil and promise a profitable return" (P.A.R. 1921-2 : 23). Similar action was taken in parts of the Central, Milne Bay and Gulf Districts at the same time.

Acquisition of land

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423 In 1921 the Crown began to purchase lands under the Lands Ordinance 1911-22 and to declare them under the Native Plantations Ordinance, as Native Reserves set aside for the purpose of Native Plantations. Between 1921 and 1925, 38 such plantations were declared in Papua (33 of them in 1922-3). Each plantation was to be farmed by a group of neighbouring villages. By 1932, however, 18 of the Orders in Council by which the plantations had been established had been cancelled (there were no cancellations thereafter). Of the remaining 20, 14 were located in the Northern District and the other 6 in other parts of Papua. With the exception of small extensions to several plantations, no further land was bought by the Crown for this purpose after 1925. The plantations established on Crown land in the Northern District are listed in Appendix A.[A]

In 1925 the policy changed to the extent that plantations were only established under the ordinance if people could be persuaded to set aside native land for the purpose. The Crown did not buy the land, and residual ownership was not challenged, but for such time as the land was proclaimed under the ordinance it could only be used as a native plantation for a particular group of villages. We have been unable to ascertain the reasons for this change of policy. Between 1923 and 1936, 75 plantations were proclaimed in Papua under this section of the ordinance. By 1934, 36 of the Orders in Council setting up the plantations had been cancelled. Of the remaining 39, 12 were located in the Northern District. They are detailed in Appendix B.[B] No further communal plantations were ever established.

A, [See Category 423, pp. 37-40--Analyst B, [See Category 423, pp. 41-42--Analyst]

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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(1) The vendors were illiterate and signed the documents by the putting of marks.

ordinance for the appointment of officers as "controllers of native plantations". The first of these, Mr. G.H. Murray, was appointed in 1920 to serve the whole Territory (P.A.R. 1920-1 : 28). It was not until 1923 that a permanent officer, Mr. A.T. Dawson, was posted to the Northern District. Neither officer had been trained in agriculture. 657 241

The people of the Northern District were reported to be receptive to the idea of having their own plantations and "practically no compulsion" was applied in getting initial agreement to the principle (P.A.R. 1923-4 : 16).

Planting began in 1923 and by 1925 fourteen of the plantations had been planted. Owing to a delay in obtaining cocoa seedlings from Java, 30 acres of cotton were planted in 1925 (P.A.R. 1924-5 : 27). The cotton experiment was a failure and was not repeated. By 1926 there were only 50 acres of cocoa, 10 acres of coffee and 6 acres of oil palm in the district.(1) Eleven of the plantations were of cocoa, one of coffee and two of oil palm. A little rice was also tried. The cocoa, oil palm and rice were soon abandoned by both government and the people owing to a drop in prices, and only the coffee was persevered with. 248 245 [249] [243]

In 1926 or 1927, a further 116 acres of land were cleared for coffee under government instructions, but the rate of expansion declined markedly thereafter. By 1936 there were 18 plantations totalling 242 acres under coffee in the Orokaiva area. 189 acres were then in bearing and the rest were expected to begin bearing by 1938. Plantings ranged in area from 4 to 30 acres. 245

Every able-bodied man between the ages of 16 and 36 years who lived within five miles of a plantation (except those employed by government, missions or European plantations) was required, by regulations under the ordinance, to work 60 245 466 [651]

(1) This figure included some private plantings in addition to those under the ordinance - P.A.R. 1926-7 : 10. Coffee seed was supplied from the government station at Higaturu.

466 days per year on the plantation of his village.(1) Those who
245 worked 60 days or over were thereby exempted from head tax
651 (then ten shillings per year). Those who did not were liable not only to head tax but also to a fine of £2 or imprisonment with hard labour for a period of three months.

245 Evidence is inconclusive as to how much work was
466 required in practice. Despite the reference to sixty days' work per year, crops like coffee needed constant attention and if only sixty days per year were to be performed by each man, either work days would need to be staggered or workers rostered. At first government officers required 120 half-days, but in most villages once the crops were in bearing all men were required to attend every morning from Monday to Friday throughout the year.(2) None of the foremen had watches and it is impossible to know how long men worked in fact, but informants in widely separated parts of the area claim that they were required to work until noon in the coffee gardens. In addition, men took turns to carry the produce on foot to the government base at Higaturu every Saturday. This involved a walk of about fifteen miles in each direction from the Ongoho (Asigi) community block.

462 Women took no part in cash cropping, but they did most of the gardening. Men sometimes helped in the food gardens in the afternoons.

657 Reports of the period contain many references to the
245 peoples' lack of enthusiasm for the scheme and heavy sanctions were applied by government officers to have their programme
466 enforced. In 1925 the Resident Magistrate tried to extend the

(1) Men who had been away as indentured labourers were exempt from this requirement for three months after their return to the village.

(2) At several places near Higaturu people claimed that they were required to work afternoons also during busy periods. After such periods they would be allowed a week or more off with no plantation work. It seems likely that this was done in the villages close to Higaturu which were under closer supervision by the officer in charge of the plantations. In the more distant areas the officer seems not to have delegated any authority to vary the regular pattern. Humphries (1944 : 3) notes that the specified period of 60 days (he says three months) was not observed in practice and that "in fact men were called upon to work whenever circumstances required them".

657 scheme to Ioma and other areas. At Ioma "it was only when
245 faced with the alternative of going to gaol for failure to pay tax
466 that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

697 The standard penalty for failure to work was three
[687] months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

245 Daily work on the community coffee gardens was
625 supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine
245 Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of
[657] communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

245 Such was the difficulty of getting labour to carry the
466 produce from the factory at Higaturu to the port of Sanananda
466 (near Buna) that a special regulation was passed requiring all
465 able-bodied men to carry produce whenever instructed to do so.(2)

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(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

proceeds to be retained by the government was paid into the Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

Hulling, marketing and administrative costs incurred in running the plantations scheme were paid from the Native Education Fund. The same fund provided a coffee pulping machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

Post-war community plantations (1945 - 62)

Shortly after the outbreak of war with Japan, government services were reduced to a minimum, coffee buying ceased and the community cash crop gardens were soon abandoned. The Orokaiva area became the scene of intense fighting between Japanese and Australian-American Forces during 1942 and 1943 and civilian government was not restored until 1945. No further Commissioners for Native Plantations were ever appointed but towards the end of 1944 an Agriculture Officer (Mr. F. Shaw) was posted to Higaturu. One of his tasks was to get the pre-war plantations into production again. Most informants today say they had no wish to resume work on the plantations owing to the low payments made pre-war, which they assumed would continue. Their association with Amercian forces had led them to consider their labour to be worth considerably more than pre-war rates. However the military administration (A.N.G.A.U.) was then still in charge of the Territory, and they were instructed to recommence work on the plantations.

The pre-war system whereby every man worked on the coffee each morning from Monday to Friday was resumed, though supervision was transferred from the village constable to a "coffee boss", one of whom was appointed by the government to oversee each plantation.

Penal sanctions were less severe than pre-war, the usual punishment for failure to attend work being one month's imprisonment instead of three, but before long the sanctions were relaxed and few people were convicted. Income was higher, for whereas before the war the villagers were paid only half of the proceeds of the crop, after the war they were paid the full price.(1) Ongoho people inform us that annual payouts after the war were £6 to £9 per man per year, and in addition

(1) The Native Plantations (Papua) Ordinance of 1952 provided for the total value of the crop to be paid in cash to the producers. In practice, the policy had been followed for several years before that.

After 1958 most of the coffee produced by indigenous growers in the Northern District came from plots which were planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block in detail in a series of separate interviews at each of the villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration precluded the emergence of these particular problems: the land had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the existence of smaller enclaves of other sub-clans in most of them. Marriage is usually (but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

474 foodstuffs and for ceremonial exchanges and some urged the people to deposit their compensation money in a central fund for use by the community as a whole. Many leaders took this advice and collected large sums for the co-operatives. Some of the money was kept in the villages, but some was contributed to central funds which were held on a tribal or sub-tribal basis.

Few of the leaders had the technical knowledge to know how to handle the funds or to apply them to productive projects, and much of the money was dissipated in unproductive [657] activities. About 1950 government Co-operative Officers were sent to assist the establishment of formal co-operatives and to save the many existing informal co-operatives from disintegration with consequent public loss of faith. The officers were able to make headway in some instances, but in other cases the funds were already exhausted and the people disillusioned. In cases where the funds remained, the government insisted on their being handed back to the original contributors before any official co-operative was formed (Belshaw, 1951 : 250).

657 Efforts to increase indigenous participation in com-
24 mercial agriculture in the Northern District in the post-war decade had met with little success and in 1954 the Department of Native Affairs resumed pre-war patterns of promoting commercial agriculture. Additional police were stationed in the area, particularly on the inland side of the Kumusi River but to [466] a lesser extent among the Orokaiva also. One policeman was based at each of a number of villages and each village was required to clear a community garden for cocoa planting.

The Department of Agriculture staff did not favour any extension of community planting and put its emphasis on individual cash crop gardens but, in the early stages at least, this action was strongly opposed by both the mission and the [777] patrol staff. Missionaries who were involved feared that individual cash cropping would lead to abandonment of the villages as each individual would probably want to live near his own cash crop garden. They felt that this would result in a reduction of religious and educational activity and may lead to a resurgence of non-Christian practices. Patrol staff too opposed individual plantings at that time, in some instances it seems because of an erroneous notion that traditional agriculture was

a communal task.(1)

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Most of the communal cocoa gardens in this area were later abandoned. Some (such as Hojavasusu) were divided into individual lots and continue to produce. A few others are still functioning to a limited degree, but none are now operated on a communal basis.

(1) By about 1956 the new patrol staff had come to favour individual plantings and this policy has been followed by both departments since then.

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1) 241 614

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it. [726]

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2) 245 249 657 466

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group. 245 657 466 [626] [461] [626]

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951. [249] [731]

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

241 65 [466] [625] [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Appendix D

Native Regulation No. 121(1)
(Providing for compulsory planting of economic trees)

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Coconuts and other useful trees and plants

(1) It is a good thing to plant coconuts and other useful fruits and trees, and all coconuts and trees planted under this regulation shall belong to the person that plants them and to his heirs, and every able-bodied man shall from time to time plant coconuts and other useful trees and plants. The Magistrate shall fix the number of trees or the area of land as the case may be that the able-bodied men of each district or village shall plant, and coconuts shall be properly planted at a distance not less than five fathoms from tree to tree.

(2) All men will not have to plant the same number of coconuts and other useful trees, on the same area of land because some men have little land and some have much and some places are not good for planting trees.

(3) It shall be the duty of the village constable to see that this regulation is obeyed in such villages as the Magistrate directs, and if he fails or neglects to do so he shall on conviction be liable to a fine not exceeding Two shillings and sixpence or in default of payment to imprisonment for any period not exceeding Seven days, or to imprisonment in the first instance for any period not exceeding Seven days.

(4) The Magistrate shall also, where deemed desirable, order the people to plant and cultivate useful food trees along the village road so that they may all enjoy the shade and eat of the fruit.

(5) The Government may provide the people from time to time with young trees or seeds to plant, and the Magistrate will direct the people where to plant them.

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(1) Native Regulation Ordinance 1908-30.

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(6) If any native who has been ordered to plant and cultivate a certain number of trees or a certain area of land by the Magistrate wilfully neglects or refuses to do so he shall on conviction for a first offence be liable to a fine not exceeding Five shillings or in default of payment to imprisonment for any period not exceeding Six weeks, or to such imprisonment in the first instance; or, for a second or any subsequent offence to imprisonment in the first instance for any period not exceeding Three months.

Sub-clauses (7) to (9) cover minor points of detail and have been omitted.

This regulation was amended in 1946 such that planting could be forced thereafter only in the event of serious food shortages.

Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation ....

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed ....

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ...

1. Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

2. Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

3. No proportion was ever gazetted but it is understood that one half was invariably taken.

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(a) may be distributed in kind by the Government among the villagers ...

(b) may be sold by the Government on account of the villagers ...

(c) may be purchased by the Government from the villagers ...

423 9. The remainder of the annual produce of each native plantation ... shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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434 Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

"1. That each one-half or other proportion of each year's produce which is the property of native villagers ... shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof ....

Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation.

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso.

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the
[101] future, to these negative feelings (Belshaw 1951:3-6; Keesing
1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be consider-
[464] able increases in the future' (Plant 1951:4). The area was
[797] closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepe was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organization on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [121] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [657] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw 1951.. [2] See Crocombe 1964:31.

361 Moreover, the Yega cocoa project[1] has had a remarkable demonstration effect throughout the Orokaiva area; land development along similar lines as at Ombisusu is nearly everywhere under serious
● [657] consideration and, whenever undertaken, may be assumed to involve some degree of resettlement on individual blocks. It is now government policy in the district to foster this spread of smallholder projects as a matter of high priority.[2]

121 We have attempted some comparative discussion by introducing material on another area of closely settled populations, Chimbu.[3] Firstly, this provides contrasts in patterns of residence and mobility, the intensity of subsistence cultivation and in the results of changes in land use. The Chimbu example is an appropriate test case regarding arguments for certain necessary connections between local systems of agriculture, the stability of settlement and the potential for schemes for land development among these Orokaiva. The settlement pattern eventually formed after the eruption affords data for instructive but not conclusive comparison with the pre-eruption situation. Secondly, a consideration of Chimbu land tenure and local organization throws some light on our Orokaiva data.

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[1] This is fully discussed by Dakeyne 1965.

[2] In late 1964 the many individuals interested in these schemes showed considerable interest in the new Land Tenure (Conversion) Ordinance, 1964 (Edric Eupu: personal communication).

[3] See p.72 ff.

423 The only local hunting land held by Sivepe people is that held [224] by individuals as gardening land. A villager may hunt or fish on [226] the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 Apart from the game available to the hunter, there are only [231] 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside [241] the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] Of the 24 pigs or piglets claimed by 7 of the 12 householders, [426] 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[146] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

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[1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

177 in Papua (Territory of Papua 1908-9:19). In 1904, 4 village
464 constables had been appointed from the peoples along the new road.
625 By 1908 members of the various tribes were peaceably trading with the carriers along the road (Territory of Papua 1907-8:22).

In about 50 years preceding the establishment of their present
166 village the groups now represented in Sivepe had between them
361 been involved in shifts of residence between a series of 14
177 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units. During this period members of several other descent groups have either accompanied them or established independent villages and worked land of their own in
[G21] the same area. Intermarriage among contemporary villages there was common and individuals frequently moved from one to join kin in another.

166 The 4 Jegase lineages can trace the history of their groups
361 back to a point of common origin in the first decade of the
613 century in the village of Simbehata and its 'satellite' Totogata, both on what is now Jegase land hardly a mile from the present site of Sivepe.[1]

(1) Migration 1900-50: The Bebehupa moved from Simbehata to Korogombata[2] and were joined by some members of Usohu living nearby.[3] Except for 3 families which moved out to form Kisisita, Aurija and Andakahambo villages, they remained there until about 1937 when they were asked by the Administration to reunite with these 3 to establish Korinasusu. One of the 2 major pre-war tracks from the coast to Kokoda lay nearby and when Japanese and Australian troops moved along this in 1942 the people abandoned the village and moved into isolated garden huts. Most villagers returned to Korinasusu after the war but 1 group founded Nahihita nearby.

●[G57] In 1950 the Administration instructed the Bebehupa of Korinasusu and Nahihita to join the Usohu people living in Gogovosusu and Binduta to form one large village. Up to that time the villages had been confined to Jegase land but because

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[1] For place names mentioned in this section see Map.2. A

[2] Mentioned as a 'Jegase village' by Williams in 1923 (W.83), as are Sivepe, Pusahambo and Hanimkumbari (see pp.34-7). He also lists them as Awala villages.

[3] A number of the older Jegase men claimed that the Usohu people formerly regarded themselves as members of Jegase clan.

A, [See Category 102, p. 40--Analyst]

166 361 613 Neither the man nor his son has every cultivated his patrimonial land at Hamburata although they hunt and fish there. The man makes these periodic visits to affirm his rights as he claims that constant surveillance is necessary to forestall encroachment on his land. His father's brother controls the land in his absence.

By 1950 the members of the Berekipa households who numbered 12 had thus acquired only 5 parcels of land (totalling 9 acres) near Sivepo since the lineage returned from Hamburata 30 years before, and had to rely on other lineages for access to adequate land. [657] After the war the Berekipa were asked by the Administration to move from Pusahambo to a village called Pamba where Arehu lineage was living. They seem to have been largely dependent on the Arehu and on affines elsewhere for planting rights since then.

The Arehu people had founded Totogata next to Simbehata and remained there after the other Jegase people had moved on to Euru and Korogombata. Some members of Bebehupa lineage, in refusing to recognize Arehu as a genuine Jegase lineage, explain that it is an immigrant group descended from a Togahau man of Arehu clan[1] who was adopted as a child after a Jegase raid on the Togahau. The land the group now holds is centred on Simbehata and the Bebehupa, although they take little interest in it, allege that it was acquired when the Jegase man from Simbehata was killed at Divinikovari. The Arehu have retained and strengthened their rights over the years and to all effects have become absorbed into the local branch of the clan, extending their effective ties there by intermarrying with other lineages. When pressed, the only resident male (d4J) even answers questions about the position ascribed to him as one of the agnates in the local group by [578] stressing that he and his father married Jegase women, as if no more need be said. The grandson of the alleged original landholder has disputed the rights of the Arehu man to the parcel of land on which the old village Simbehata was situated.

[657] Several years after the ancestors of the Bebehupa left Simbehata the Arehu were told by a government officer to amalgamate with other Jegase people and with the members of Timumu and Seho clans from Euru and Asina. The village formed on Seho land was old Sivepo with its satellite, Pamba; most of the people stayed there until they fled the Mt Lamington eruption in January 1951.

The Pakuma and Hajejopa lineages of Timumu clan had both joined the Jegase and Seho people in founding old Sivepo. The fathers

[1] This clan today is represented in Sirembi village in Togahau Census Division and possibly in other villages there. In 1923 Williams (O.1) noted that they were also present in the villages of Pororí and Ohamba.

[TEXT CONTINUED ON PAGE 45]

facilitated the type of local movements that we noted occurred in the neighbourhood of Sivepo. However at times[1] the density 'on the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

The Sivepe people have moved only singly or in small groups except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

People who have moved to take up rights in other land have done so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

The people tended to resist this change, but they had made some moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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[1] For instance, when the densely populated area stretching from Isivita to Isoge and Avala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

[2] See Williams 1930:7; W.1.

249 planting was still being encouraged. The trees planted in the district were for long the only Papuan-owned rubber plots.

249 These trees had been planted under Native Regulation No.121,
657 first passed in 1903 but not enforced in this division until the first world war. The legislation states that 'it is a good thing to plant coconuts and other useful fruits and trees.... The Magistrate shall fix the number of trees or the area of land, as the case may be, that the able-bodied men of each district shall plant' (Native Regulation Ordinance 1908-30).

466 We could not determine how much compulsion was involved in
249 establishing each of these 'plantations' but in 1921 the Assistant
657 Resident Magistrate reported that planting in the district needed more supervision than one officer could provide and in 1922 the Lieutenant-Governor said that the threat of force was necessary to ensure the success of the policy of agricultural expansion
[245] under the regulation (Territory of Papua 1921-2). A particular reason for resistance in this district may have been the official priority given to rubber whereas it was reported ' the natives prefer coconuts due to their food value' (Territory of Papua 1920-1). A person who refused to plant was liable to a fine of 5 shillings or 6 weeks' imprisonment or to 3 months' imprisonment for a second offence.

The people of 3 villages, Pusahambo, Euru and Asina, were
249 directed to co-operate in the planting of one of the stands near Sivepo. After the people of Asina had declined to provide land it was agreed that the plantation should be established on a parcel already partly cleared near Pusahambo. Part of this land belongs to Timumu people and part to Jegase; and although 1 Timumu lineage sometimes assert that they also hold residual rights in the Jegase section of the land, they appear never to have questioned the rights of the members of Jegase and Seho clan branches to the trees.

The only other plantation to which any member of the sample has rights is Korinasusu. This also is on land divided between members of 2 different clans, Jegase (Bebehupa lineage) and Usohu, who disputed the exact boundary when we enquired about it, but have generally been able to agree on the rights to tap the trees.

249 It seems that the rubber project in the district was designed
657 so that, from the start, the owners of the rubber should themselves handle much of the production and processing. They were encouraged to plant lime trees 'so that they can coagulate latex with lime-juice and smoke a fair sheet of rubber for market' (Territory of Papua 1920-1). However, no facilities for the manufacture or processing of latex or rubber were introduced. The people claim that after the planting regulation had been enforced, the trees

249 stood untouched for about 20 years. In 1944 Humphries (1944:4)
●657 reported that 'the trees grew to maturity with very litte attention from the natives and today they are being tapped for the first time'.

[434] In 1941 an agreement under the Transactions with Natives Ordinance (1893-1935) was made between a European planter recently arrived in the area and the villages with rubber stands, whereby he obtained exclusive rights to tap, collect and dispose of the produce of all the trees, while from 6 per cent to 12 per cent (according to ruling market prices) of the gross sum obtained by the lessee was to be paid to the owners every 6 months; in general this meant that the owners received 1 penny to 3 pence per pound. The contract was to extend for 5 years and the lessee was to have the option of renewing it for a further period of 5 years.

The arrangement became effective in 1941 but was interrupted by the Japanese invasion of the Northern District. In 1943 A.N.G.A.U.[1] authorized the lessee to return to restart production from the trees. Mann (1954:35) says that

[433] during 1944, under the supervision of the rubber division of the Production Control Board, tapping of some 250 acres of those smallholdings was organized. During 1945 production was over one hundred thousand pounds dry rubber, indicating average yields of about four hundred pounds per acre.

249 Various estimates have been made over the last 20 years as to
433 the size and number of the rubber stands in the area. Mann's figure of 250 acres contrasts with the lessee's estimate of 110
311 acres,[2] and with Humphries' assessment of about 80 acres. There were 95 stands with a total of 7,721 trees listed in the 1941 agreement but during 1943-5 a further 42 stands were added so that most of the available stands were then included in the scheme.[3] In 1951 Belshaw claimed that there were roughly 6,000 rubber trees in the 'Periho' tribal area within what was formerly the Kokoda District and another estimate about the same time put the number of trees in this wider area at 10,000. The annual report of 1959 stated that 26,000 trees 'in the Awala area' were tappable. A

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[1] The Australian New Guinea Administrative Unit.

[2] Assuming this estimate and the figure of over 100,000 pounds for 1945 production to be accurate, we must conclude that the average yields were more than twice those given by Mann.

[3] It was reported by patrol staff that 'nearly all' the rubber stands were being worked from Awala in August-September 1943.

249 433 311 recent agricultural census listed 55 stands with 13,700 trees in the Saiho Census Division (which coincides roughly with the 'Periho' area) and another 3,700 trees in the Sangara Census Division. However, according to the 1964 census there were 14 Saiho villages with stands, carrying 10,000 rubber trees altogether, 4,500 of them less than 6 years old and another 3,500 less than 10 years old.[1] There were also 46 individually-held plots recorded with 8,000 trees, all less than 10 years old. The total number of rubber trees on village-stands in the Saiho, Sangara, and Togahau Census Division was put at almost 26,000.

249 657 [434] The agreement between the lessee and the villagers was modified in 2 ways after the war. When the scheme was resumed in 1943 the Administration decided that in order to facilitate the handling of money, the royalty to be paid to the owners should be changed from a percentage basis to a flat rate of a shilling twice a year per tree tapped;[2] and the royalties set aside every 12 months by the lessee were sometimes withheld by the District Office so that the people did not receive payment for more than 18 months, although the contract provided for half-yearly payments.

249 [464] Until 1946 local villagers were employed by the lessee to tap their stands. A tapper would work in his own area but his task necessarily included some stands belonging to nearby villages other than his own. This caused some misunderstanding at first but the owner's suspicions were eventually allayed.

[625] [623] The Village Constables had been responsible for seeing that the magistrate's instructions were obeyed when the plantations were established but apparently the Village Councillor in some cases assumed control over the distribution of the income among the 'owners', who were listed in 1 schedule of the agreement, although the money was shared under the supervision of a government official. One man recalled that 1 delayed payment of £114 was made for rubber from a number of stands owned by members of his village; he claims that the money was shared by more men than those named in the agreement drawn up several years before.

The lessee believes that the stage at which contract arrangements were conducted to the best effect and greatest satisfaction of the villagers was the period 1943-6 when he arranged to employ some of them as paid tappers.[3]

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[1] These would include self-sown trees.

[2] There is no evidence to support Belshaw's assertion (1951:13) that the owners were at one time receiving a royalty of only 6 pence per tree.

[3] In September 1943 government officers reported that there was a good daily yield as the trees were in good condition.

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organisation of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

179 more active collaboration with local groups and leaders' (ibid:172).
423 The report discusses the Land Tenure (Conversion) Ordinance, which became law in 1964, noting (ibid:171) that the legislation requires that the Administration satisfy the preliminary conditions of 'complete inquiry about customary rights and agreement of all the holders of customary rights' before it can conduct the surveys and convert these rights to individual registered title free from any customary limitations.

The experience of the Native Lands Commission in surveying land and recording customary rights 'indicates that progress in the application of this legislation will almost certainly be slow' - too slow, the mission believes, for much progress to be made in implementing its recommendations for economic development (ibid.).

It recommends 'a more flexible approach' to the obstacles to change, posed by the traditional social matrix of land customs. The Administration could well 'encourage native groups to work out their own solution to obtaining individual ownership or control of the land within native customs. The local government councils could make a useful contribution to this difficult problem.'

c. Economic incentives

433 Mann (1954) concluded his report on the area by stating that the agricultural possibilities of rubber were very good but that

> it seems little short of a tragedy that the well-intentioned efforts to introduce it as a native culture in this area have come so close to complete failure, whilst the trees remain as a source of discouragement to further development of what may prove to be a worthwhile venture for the landowners of the district.

657 The policy of establishing rubber stands under the Native
433 Regulation was well-intentioned but, as Humphries points out (1944:4), it was implemented by a single overworked man. The people of the district may well have questioned the point of having 'useful trees' when the initial forced plantings were not followed up with the provision of extension, processing or marketing facilities. Although they eventually received a small income for little effort when a local planter put this idle capital to some use, there have never been facilities designed specifically for local needs.

Belshaw maintained that even while receiving this income the people were unhappy with the scheme, not simply because they judged the price they received unjust, but because they felt it was 'wrong that somebody else should be able to exploit their own resources' (1951:14). Moreover, they resented the withholding of payments and this has left lasting impressions.

657 433 From the villagers' viewpoint Europeans who participated in establishing and exploiting their rubber, and other external agencies, have alternately assumed complete control of the enterprise - if it could legitimately be regarded as a continuous attempt to realize their assets' potential - or have adopted a laissez-faire attitude towards village production.

To help meet current demand A.N.G.A.U. encouraged resumption of the project after the war but the planter claims that 'in spite of repeated representations Administration has given no support, moral or otherwise', to the various schemes; although he sought to determine the villagers' preferences where alternatives offered themselves, it was inevitable, as things stood, that the people generally had very few opportunities to decide what form the scheme should take. They could merely be invited to express their preferences on random points about the implementation of a policy determined by others; they could also decide whether to participate or not, at the times a market could be offered.

When responsibility for specific tasks needed to be left with them as one scheme after another evolved, it was delegated inconsistently, left to chance or, at best, left to ad hoc decisions with the result that no clear and consistent definition was given to the respective rights and powers of Village Constables, Councillors, tappers and owners - either those initially listed on the agreement or the wider group said by informants later to have exercised these rights.

The fluctuations in the form of marketing schemes also engendered doubts as to the justification of the methods of determining the price or royalty they received. Uncertainties were not resolved by the lacunae in the scheme which some or all of the villagers were abruptly faced with at one time or another.

651 The people who planted coffee in 1956-7 had hoped that the income from the new crop would exceed their shares of the small revenue from rubber and could be depended on to provide enough for their annual tax paid to the newly established local government council. However, the income from the village plot would have been too low to provide this for everyone who participated in planting the coffee, if they had all been allowed to share in the money.

433 Whatever the cause of their unrealistic expectations, their disappointment and their bitterness over an alleged inconsistency in the payments made to different people or on different occasions for similar quantities of produce of uniform quality have been obstacles to the expansion of the present areas under coffee and to the introduction of cocoa as a second new cash crop. Growers express the view that, because their efforts with coffee have been

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some 1,000 cocoa trees were also planted in the pre-war period, although only the copra and coffee were worked during this time. All commercial agriculture ceased with the Japanese invasion in the second world war and was again interrupted by the eruption of Mt Lamington in 1951. The principle of compulsion was withdrawn in the same year and community enterprise largely ceased in the mid 1950s with an increasing trend towards individual plantings. The whole scheme was characterised not only by low returns to labour, delays in payment,[2] frequent disputed claims to plantings and serious problems in work organisation, but also by a definite feeling of resentment on the part of the indigenous participants.

(c) War and natural disaster

The Orokaiva view of the government was no doubt influenced by the second world war, which led to the Japanese occupation of the Northern District from July 1942 to January 1943, and by the eruption of Mt Lamington in January 1951, causing the death of over 4,000 people and the destruction of the district headquarters and staff at Higaturu.

The impact of the Japanese invasion and subsequent Allied readvance has never been assessed but must be considered profound. All Australian administration ceased and, when resumed, was vested in the Australian New Guinea Administrative Unit (ANGAU), a military authority. Several thousand men co-opted as carriers by both Australians and Japanese worked under very arduous conditions.[3] Since the Orokaiva lay athwart the main Buna-Kokoda route which was the scene of fierce fighting, many villagers retreated into the surrounding hills where they were obliged to subsist on very limited resources because of the absence of much of the potential labour force.[4] Others sided with the Japanese or profited by the power vacuum to attack or betray Allied troops and civilians or to assert their authority over other Orokaiva. On resumption of Australian rule, twenty-two men were sentenced for such deeds by a military tribunal and publicly hanged at Sangara and Higaturu.[5]

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[1] An estimated 111,000 trees at a spacing of 10 by 10 feet.

[2] As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

[3] For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[4] A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

[5] A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

797 The majority of Papuan teachers remain unqualified teacher-evangelists although the mission is largely responsible for education in the sub-district at the primary, secondary and technical levels. A significant feature of their education programme as a whole remains its total disregard for agricultural training, except incidentally at the Martyrs' Memorial Secondary School where the pupils maintain a coffee garden as well as their own food gardens.[1]

[743] [657] Medical work has already formed a large part of the mission's activities and most mission stations operate a clinic and small hospital while a T.B. hospital is maintained at Embi. As with education, these activities are largely standardised by the Administration and the Department of Public Health is gradually taking over from the mission in this field.

(e) Recent developments in commercial agriculture

241 In 1941 a European planter obtained an agreement, under the Transactions with Natives Ordinance 1893-1935, to exploit the communal rubber plantations in the Awala area.[2] These had not previously been worked. Production commenced in 1943 and continues to date, interrupted only by the Mt Lamington eruption. However, the number of plantations incorporated in the scheme fell steadily and by 1965 only about 30 stands were being worked and tapping had become irregular. This is due partly to poor communications, partly to the fact that an agreement satisfactory to all parties was never arrived at and partly to the planter's own trees coming into full production.[3]

The re-opening of Popondetta agricultural station in 1954 led to a renewal of interest in cash cropping with, in particular, the [245] extensive planting of cocoa. By 1964 there were estimated to be 491,000 indigenous-owned coffee trees in the sub-district, 244,000 cocoa trees, 25,700 rubber trees (almost entirely the product of natural increase) and 108,000 coconut trees. This pattern of steadily increasing plantings only levelled off temporarily in 1959-60 with falling coffee prices, a shortage of coffee seed and inadequate marketing arrangements for cocoa. At the time labour

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[1] However, agricultural training at several levels has been available since 1955 at DASF's Popondetta Agricultural Station (now Popondetta Agricultural Training Institute).

[2] These had been established during the first world war in that part of the District considered too far inland for worthwhile copra production. There were 137 stands in all.

[3] For a detailed description see Rimoldi 1966:86-93.

241 was also diverted to the plantations being established in the Sangara area under the Ex-Servicemen's Credit Scheme.[1]

The increased rate of development after the war, a re-orientation in policy towards individual rather than communal holdings, the allocation of the majority of settlement blocks under the ex-servicemen's scheme to Papuans and New Guineans, and the establishment of the Higaturu Local Government Council in 1956 and the Oro Bay Council in 1963 have probably all served to transmit to the Orokaiva 443 a sense of participation in the development process. At the same time, incentives for the acquisition of cash have grown with the proliferation of trade stores (including over twenty owned by Orokaiva men) and the establishment of companies seeking local share capital, while interest in the sale of produce has increased with improvement in communications and with immediate cash payments for such sales.

241 An important factor in the growth of interest in cash cropping 657 has been the implementation of a variety of land tenure and marketing schemes, directed entirely towards the indigenous producers and [425] in part initiated by them. Since 1957 the Higaturu council has been encouraging the registration of individual cash crop holdings,[2] the Yega people at Gona have begun subdividing clan land into permanent holdings, while similar developments within the context 474 of the Land (Tenure Conversion) Ordinance 1963 have already been initiated.[3] There are now ten co-operatives operating in the sub-district, predominantly along the coast; most are concerned primarily with marketing copra and providing retail stores, but this also includes the Orokaiva Coffee Growers' Society (OCGS), which was established in 1962 to operate a factory previously erected by the Higaturu Local Government Council and to purchase coffee from the growers.[4] By the end of 1964 subscriptions by villagers amounted to $7,010, held in $10 shares, 65 per cent of this total having been raised in the first six months of operation. The society paid its first dividend of 5 per cent in November 1964.

454 In 1963 an expatriate planter established a local trading company, Oro Ltd, comprising three Papuans on its board of six directors and seeking local share capital in minimum holdings of $5. Again

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[1] See Howlett 1965, for a detailed description.

[2] See Crocombe and Hogbin 1963:89-93.

[3] Each with varying degrees of success. The Higaturu scheme, for instance, fell into abeyance in 1964 due to a shortage of staff capable of surveying the holdings for which registration had been requested, as well as its doubtful legal validity.

[4] See Crocombe and Hogbin 1963:94-6.

[73] [133] than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

[178] [171] The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

[177] [177] [65] (iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. [166] Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

[4] Belshaw (1951:248) makes a similar allusion.

474 grown. These were mainly used as food by the co-operative workers,
241 but in times of local food shortage they were sold to other vil-
[433] lagers. All workers, Yega, Ahora and Beuru, lived in garden
[484] houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

[797] Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative
[797] efforts of the Yega proceeded in different directions. The Anglican
[614] Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

[657] Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

[484] All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

474 support, a peak number of 19 households being engaged during 1949.
241 In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocoa pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-
[731] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 The mission-sponsored Christian co-operative embraced more
241 people and a much greater area than the Gombe Co-operative. The
177 Anglican Mission at Gona is responsible for an area that stretches
797 approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[657] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

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[1] The eight societies within the association were to be centred at Gona, Garara, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural Officer, Mr Cockshott. In mid-May he commenced a weekly co-operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the co-operative movement was regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognize that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

243 'paddy' to food, prevented the conversion of the food to cash,[1]
[262] though it was quite suitable for village consumption as a supplementary food. In fact, imported white rice has now become an important 'status' food at feasts.

474 Rice continued to be grown for about a year after Rev. Clint's
241 departure; small quantities were sold by the cupful but the income
[242] received would have been negligible. In 1951 the crop was attacked by a species of 'army worm' and on the recommendation of the District Agricultural Officer was destroyed. No further plantings were made and all co-operative agricultural activity lapsed.

By 1952 co-operative agricultural activity had ceased among the Yega. The death of Samuel Ungega (the only man in the co-operative who had any training in co-operative work and the only man capable of directing activities on a long-term basis), removed from the Gombe co-operative the main driving force.

[177] The basic reason for the failure of the Christian co-operative seems to have been that Rev. Clint's aim was to produce a storable food crop whereas the Yega wanted a cash crop. The scheme was established on an inadequate business basis and with insufficient understanding of the people's deep-seated desires.

The modern co-operative and the extent of Yega participation

474 A subsequent co-operative, organized by the Administration and
[241] known as the Gona Villages Native Society Limited, came into being in May 1953. In that month share capital amounting to $2542 was repaid by the Administration to 332 members of the old Gona, Gombe (Iaga) and Garara co-operatives, most of whom immediately became shareholders, at a uniform $10 per share, in the new society. The new co-operative was to serve different purposes from the earlier ventures. There was to be no attempt whatever at communal
[443] production. Functions were to provide marketing facilities for the agricultural produce of individual members and to conduct a retail trading store.

[347] Operations were begun in a store previously owned by A.H. Bunting Ltd on the Popondetta-Killerton Road, half a mile from Cape Killerton. Originally built from local materials and with a tin

[TEXT CONTINUED ON PAGE 64]

[657] [1] Only brown unpolished rice is issued as rations to the Administration and plantation labour. The endosperm and much of the vitamin content are removed in the production of white rice, so that employers issuing white rice would have to supply additional vitamins, an uneconomic proposition.

474 443 [657] [454] The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 167 [368] [871] [797] [434] The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 443 438 Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

FOREWORD

In the central part of the Northern District of Papua there is a concentration of approximately 26,000 people who are known collectively as the Orokaiva. The term Orokaiva came into use some years after European contact, and before that time the Orokaiva did not recognize themselves as a single group, nor did they all interact for any common purpose. Although they do not claim common ancestry, the various sub-groups possess a relatively homogeneous cultural heritage. The Orokaiva speak several dialects which are mutually intelligible and belong to a common language.(1)

During the last ten years there has been considerable development of commercial agriculture within the area. Many people have planted cash crops on land held under customary tenure; some villages have planted communal blocks on land set aside by the rightholding clans; the Higaturu Local Government Council (which serves most of the southern part of the Orokaiva culture area) has instituted a scheme for the allocation of cash crop lands to individuals, and for the registration of the land with the Council; some Orokaiva have taken up agricultural leases of small, family holdings on government land, and they are provided with capital, extension services and registered land titles; others again have entered the plantation economy (none as entrepreneurs as yet, but many as workers on European plantations in the area); and at Beporo (on the coast) the people have embarked on a new experiment involving the cutting of clan land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

not legally binding.(1) In fact, however, the parties to this dispute assume that the officer concerned does have the necessary power to enforce the agreement, and thus it is effective for the present, particularly as it has been reinforced by registration of the land with the council. The Endehi'undi nevertheless intend to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

Our third example concerns the Jego'undi sub-clan of Inonda. Neither of the two adult members of this sub-clan has planted cash crops. One of them had prepared ground for planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Busia v. Havini in which it was ruled that although Regulation 59 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soape v. Westiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

614 assistance. The system of investigation followed by the Com-
429 mission is very detailed, and accordingly in the period of three
518 years since the Commissioner was posted to the district only
657 about five disputes have been settled. Already 34 other cases
692 are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

644 In the meantime the area is left without adequate
429 machinery for the definition of rights and the settlement of dis-
518 putes. Indigenous leaders, whether councillors, clan heads or
692 other elders have no legal right to determine disputes, and
[627] although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1)- Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higatura Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

Extension services: McCarthy (1962:110) notes that the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

APPENDIX A

The Higaturu Local Government Council Land Registration and Coffee Processing Schemes

657 The Higaturu Local Government Council was formed in April, 1956. It serves 12,000 people who belong to the southern Orokaiva culture group of the Northern District of Papua, and has 54 councillors to represent its 86 villages (of which Inonda is one).

Land registration

657 423 [241] In the first year of the council's operation the Native Affairs officer who was responsible for supervising council affairs initiated a system of registering with the council all lands which were being used for cash crops. In practice, persons wishing to plant cash crops under the scheme applied to the supervising officer, who thereafter made a chain and compass survey of the land concerned, in the presence of the elders of the landholding clan. The councillor for the area also attended. A written declaration was made and witnessed by the clan elders, the local councillor, the applicant and the Native Affairs officer. The declaration allotted the land to the applicant and stated that he could thereafter transfer it or nominate heirs to it, without further reference to the clan or other group. The land described in the declaration was then entered in a register by the council clerk.

During 1957 after about 150 blocks had been registered, the acting District Commissioner ordered that the scheme be stopped on the ground, it is said, that it did not conform to traditional practice. No statement of policy was issued, but no further registrations were made for nearly three [241] years. The people were uncertain of the status of the registrations which had already been made but coffee planting continued throughout. In fact, the man who was then District Agricultural Officer considers that there was more planting during 1957-60 than either before or since.

It is understood that the main issues at stake were (a) whether the scheme constituted a modification to custom or

657 whether it merely provided facilities for recording customary
423 land allocation; and (b) whether or not a council had the legal right to undertake the scheme at all. The answer to the latter question is really dependent on the answer to the former. This in turn depends on the legal definition of what constitutes custom, for if the scheme is considered to be in accordance with custom then it is legally valid, whereas if it is not in accordance with custom it is invalid. Various opinions have been expressed, but in the absence of clarifying legislation or a test case the matter remained one for administrative discretion.(1)

During 1958 the council passed a rule (Rule No. 4 of 1958) which required that before any man could plant cash crops, he had to obtain the approval of the leaders of the relevant clan or clans. This rule was disallowed by the Administration. In 1959, a new rule was adopted (Rule No. 2 of 1959) which stated in the preamble that "...tree crops should only be planted after notice has been given to the District Officer or District Agricultural Officer...so that help can be given efficiently in such things as transport and marketing and in control of pests and diseases. It is also necessary that future quarrels over land be avoided and that each man should feel secure in the knowledge that the benefits of the work he puts into his crop will come to him." The rule provided that no person could plant coffee or cocoa except on land which had been allotted to him by custom "to be used by him alone." Planting was not to commence until a chain and compass traverse had been made by an officer of the Department of Native Affairs. The rule was approved and implemented, though due to staff shortages it has not been possible to meet the demand for surveys, and planting generally precedes survey in fact.

657 While the rule itself made no provision for it, the draft form of
423 agreement stated that the holder of land registered
425 under the rule could transfer his rights to any indigenous person at any time. The Administration advised the councillors that this provision for transfer was not acceptable and a new form of

(1) The Lands Commission Ordinance 1962, which was assented to in April 1963 after this paper was written, makes it clear that councils will no longer have the right to engage in such schemes. It is nevertheless possible for the Commission to investigate and ratify the registrations made by the council.

agreement was drafted and adopted. It reads as follows:

"Agreement to the right of land use.... It has been agreed by the people of [name] clan (or village) and all other interested parties that [applicant's name] has had allocated to him by native custom for his use alone the land marked on the attached plan, and that no other person has a claim to the land. It is also agreed that any coffee trees planted by [the applicant] on the land are his sole property and no other person has claim over them."

The form is dated, signed by the allottee and by "the clan leaders" (in practice it is usual for all resident adult males in the "owning" clan or sub-clan to sign), and by the local councillor. It is witnessed by an officer of the Department of Native Affairs. A map of the land is attached to the form. Forms and maps are prepared in triplicate and one set was to be held by the applicant, one by the council, and one by the District Office in Popondetta. In practice, the council copy is also held by District Office.

Registration under this new rule commenced in 1960, and surveying and registration of plots have continued to the present time. At 1st January, 1963, 588 plots covering 1,120 acres had been registered. A further 1,029 applications for registration had been made but not yet dealt with. Although it was originally intended that no plot would be registered if it was less than two and a half acres in area, many smaller plots have in fact been dealt with and the registered plots at Inonda village measure 1.4, 2.6 and 1.6 acres respectively (though these areas have not yet been fully planted). Some areas of under one acre have been registered. Wherever possible, villagers are encouraged to allocate blocks contiguously, not only to facilitate surveying and identification of land, but also to reduce the extent of border clearing necessary, and to facilitate pest control and extension services.

Provisions for ensuring higher standards of husbandry and output are contained in Rule No.3 of 1959 which requires that persons with cash crops must:

"(a) ... keep the land clear of all rubbish

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer....."

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

The question of inheritance of rights to land registered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

The aim of the registration scheme is to promote the planting of cash crops on individual plots with some security of

tenure. Registration is of doubtful legal validity, but to the extent that the Orokaiva people accept it as binding (and they appear to do so unreservedly at present) it functions in practice. Although no public statement has been made on future policy to be followed with regard to the scheme, the Land (Tenure Conversion) Bill 1963, would, if it were made law, enable the Lands Commission to issue freehold titles to replace the existing documents issued by the council.

Subsidiary developments

An interesting development took place in February 1962 when the people of Hohorita (which is within the council area) devised a scheme of consolidating their fragmented holdings on an area of land which they wished to set aside for cash cropping, and registering the lands allotted to each individual with the Higaturu Council. Their plan grew out of their experience of the council registration system (the most prominent leader of Hohorita, Councillor Brian, is president of the Higaturu Council) and of a visit of Hohorita leaders to the Yega project at Beporo. The Yega project involved the voluntary division of certain clan lands among individual clan members for cash cropping.(1)

The Hohorita plan was presented to officials of the departments of Native Affairs and Agriculture in Popondetta. They are said to have been sympathetic and to have appreciated the advantages of such a system whereby consolidation would be effected by the people themselves and registered (in the early stages at least) with their own council. Not only time and expense would be saved by the people undertaking the operation themselves, but an opportunity was thereby provided to rationalize the tenure system with the full co-operation of the people concerned. The Hohorita people have since been advised on instructions from headquarters that they are not to proceed with their proposal though consolidation may be arranged by the Lands Commission at a later date on their behalf. Popular

(1) The Yega project is described in detail in a paper by R.B. Daheyne which will be published in a subsequent issue of this Bulletin. The visit of the Hohorita people to Yega was sponsored by officers of the Department of Agriculture.

support is an essential prerequisite to land reform in a democratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

From its inception the council expressed the view that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

The Department of Agriculture thereupon took over the factory and began operations. The Orokaiva raised strong objections,(1) and a public meeting of about 1,200 people was held on 6th October 1959. Government officers are said to have informed the meeting that the factory was being run at a loss which was being borne by the government. Nevertheless, negotiations were then held with the council and it was agreed that in future the processing and marketing would be run by a committee to be known as the Higaturu Council Coffee Factory Committee which was to consist of the District Agricultural Officer, the Assistant District Officer (Local Government), a representative of the Higaturu council and a representative of the growers (who was not necessarily a member of the council). The committee held its first meeting on 25th February 1960 and met at monthly intervals thereafter. The day to day operation of the factory was controlled by the Department of Agriculture.

Early in 1962 it was decided that a new body to be known as the Orokaiva Coffee Growers Society would be set up to handle the processing and marketing of coffee. The society serves a wider area than the council and is independent of the council. It is run by a board of directors with an officer of the Department of Agriculture as adviser, and replaces the former Higaturu Council Coffee Factory Committee. The society is raising capital by selling shares at £5 each to indigenous coffee growers and by the end of 1962 it had a membership of 470 and a share capital of £2,350.(2) It is intended that the society should buy out the council's investment in the coffee factory. Six coffee buying centres have been set up by the society, and all coffee in the area (35 to 40 tons in parchment per year) is now bought through them and processed at the factory. The processed coffee is marketed in Australia through the Territory Department

(1) These were undoubtedly aggravated by a drop in overseas prices soon after the Department took over, and by the fact that the Department several times ran out of funds for buying the coffee and had to send growers home without payment.

(2) Late in 1962 a European planter applied to join the society but his application was disallowed on the ground that the legislation under which the society operates (the Native Economic Development Ordinance 1951-2) does not permit of non-indigenous participation.

of Agriculture. Those Orokaiva people with whom we have discussed the matter appear to be satisfied by the present arrangement and to appreciate the experience they are thus gaining in running a commercial enterprise.

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 govern-
464 ment loans to develop their blocks and have thus had the capital
to pay for labour. They have not relied on kinship assistance at
1926 all. The loan has been an effective substitute for kin ties. L
657 derives the capital necessary to hire labour from her trade store.

It will be noted that all non-relatives are paid in cash, but
463 most relatives are paid in kind. Most entrepreneurs are still
472 dependent on the help of relatives, as they do not have the cash
to pay hired labour, and are thus forced, willingly or not, to
465 exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have
any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
472 criteria. For this reason their cash-cropping activity has been
assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that
the most successful entrepreneurs have the fewest cash crops. The
[426 largest cash croppers (A, D and H) have leases of government land
[427 and government development loans of $1,500, but even when they are
[657 omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	
B	-	-	-	-	-	-	702
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	
F	300	46	100	446	C	9	1,800
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	
J	intends to plant	-	-	-	C	-	168
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

Liquid assets. The three groups of entrepreneurs show a clear progression in average savings, group I averaging $37.32, group II $212.01 and group III $322.66. The details are given in Table 17. 463 472 454

Table 17

Entrepreneurs' liquid assets

Entrepreneur	Savings bank	Settlers Savings Club	Shares in co-operative or cash society	Cash	Total	Average for group
A	30.00	6.00			36.00	
B	5.30		60		65.30	$37.32
C	42.00				42.00	
D	6.00				6.00	
E	300.90			62.00	362.90	
F*	2.65				2.65	$212.01**
G	?				?	
H	320.00		12.50		332.50	
I	224.00		10.00		234.00	
J	?				?	$322.66**
K	536.00				536.00	
L	198.00				198.00	

* Savings were much higher but used on brother's wife's funeral and food to supplement garden produce during drought.

** Averaged for three persons only. G did not have his account book with him and said he did not remember the amount. J is said to have substantial savings but was not home when the data were collected and his brother did not know the extent of his savings.

The loans received by the entrepreneurs are shown in Table 18. As mentioned above in connection with cash-cropping, there is a negative correlation between extensive cash-cropping and success as an entrepreneur. This is further borne out by the fact that the only three entrepreneurs to receive loans of $1,500 from the Land Board have planted the most cash crops and are among the less successful entrepreneurs. 463 472 426 657

The receipt of a loan to assist in the establishment of a store seems to be correlated positively with entrepreneurial success. It must be remembered, however, that none of the most successful stores had been open for more than fifteen months.

Table 18

Loans received

A	$1,500	(land board)	E	-		I	$200 (from brother-in-law for store)
B	$178	(from younger brother for store)	F	-		J	-
C	-		G	-		K	$390 (from brother and share money for store)
D	$1,500	(land board)	H	$1,500	(land board)	L	-
	75%			25%			50%

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample, can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

17: Morawetz U-4,5 (1966) 1967 QJ23 Orokaiva QJ23
Ombi-Tara

Chapter 1

Introductory

659 The first legislation aimed at encouraging Papuans to engage in
654 cash cropping was introduced in 1894 by Lieutenant-Governor MacGregor
241 six years after the beginning of the British administration in Papua. Nevertheless, policy was mainly directed towards the promotion of European enterprise until after the 1914-18 war, when the difficulty of attracting European settlers to Papua caused a shift towards promotion of indigenous agricultural development.[1] At first communal cash crop gardens were promoted but as the disadvantages of this system became known,[2] emphasis shifted to encouraging each family to cultivate an area of cash crops separately. Cheetham (1962:68) states that this policy was clearly established by 1956.

659 An ad hoc committee was established in November 1956 to consider
423 the conversion of land from customary tenure to individual freehold title.[3] The committee submitted its report in 1957 and there followed a period of research and discussion, culminating in the policy statement on land tenure in the House of Representatives on 7 April 1960 in which the Minister said:

> (1) The ultimate objective was to introduce a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
>
> (2) Only the central Government...may issue and register land titles.

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[1] On the history of official policy on agricultural development see Crocombe 1964a.

[2] See Crocombe 1964a:33-7.

[3] Land under 'customary tenure' includes 97 per cent of the total area of Papua-New Guinea. The Administration has purchased 2.5 per cent of the total area, and non-indigenes have freehold title over 0.5 per cent.

657 423 (3) Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by ordinance of the Territory, of conversion of title to an individual registered title. (Hasluck 1960:1021.)

Five bills embodying the new land policy were passed by the Legislative Council in 1962-63. The most significant of these from the point of view of the individualisation of tenure were the Land Titles Commission Ordinance 1962 under which the old Native Lands Commission was replaced by the Land Titles Commission, and the Land (Tenure Conversion) Ordinance 1963 which sets out the procedures to be followed in tenure conversion (see Appendix A). The Land (Tenure Conversion) Ordinance 1963 was brought into operation on 3 December 1964. It embodied safeguards against fragmentation in that no land which is less in either area or frontage than a certain minimum may be registered, and no more than six persons may be registered as joint tenants or tenants in common of any interest in land.

The five current ordinances relating to land allow village people holding land under customary tenure three alternatives. First, they may continued to hold the land under customary tenure. Second, where a group has undisputed control of a piece of land and desires a more formal recognition of its rights it may secure title under native custom by having the land registered as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962. Third, individuals or groups of not more than six persons may apply to convert land previously held under customary tenure to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963. This action may only be taken with the approval of all those holding customary rights in the land to be converted, and where all clearly understand that the land is being placed outside the jurisdiction of traditional custom.

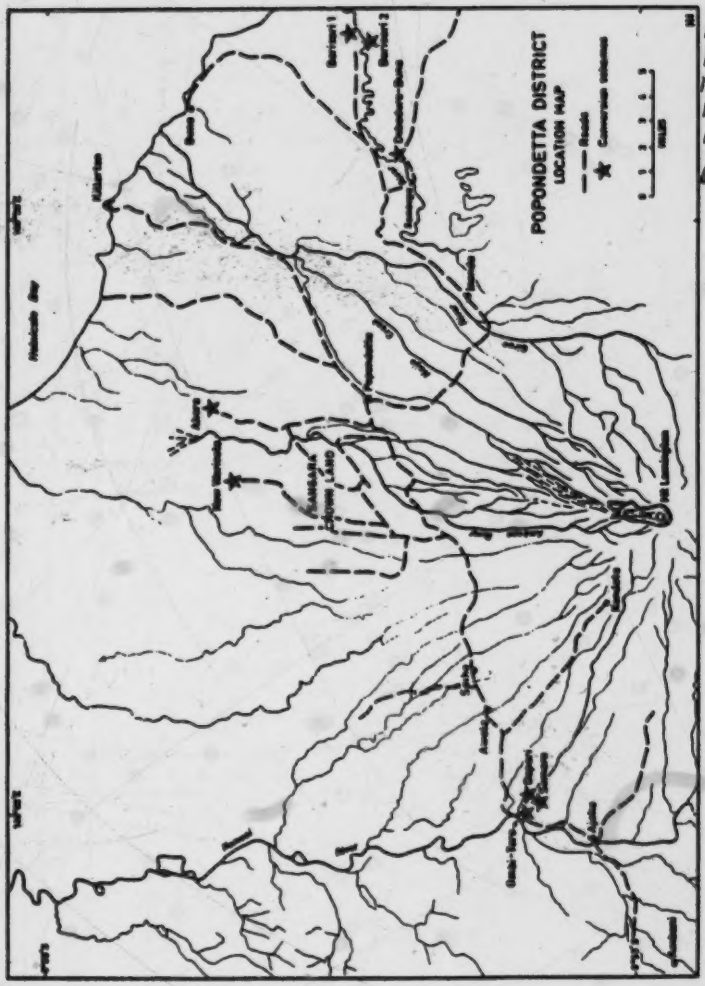
Land tenure

423 614 Among the Orokaiva there are no land rights at the tribal level. Each tribe is divided into a number of clans, each of which is further composed of a number of sub-clans, which are usually dispersed over the tribal territory. Each sub-clan holds rights to specific areas of land. Within the sub-clan rights are held by individuals and groups of individuals.

Thus the traditional Orokaiva system was not one of 'communal tenure' and individuals as well as groups held rights to land.[1]

[1] Ironically, it appears that by registering areas of land as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962 the Administration is introducing communal holding of land where it did not exist previously.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara



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Post-war tenure innovations in the Northern District

657 654 423 The Higaturu Local Government Council land registration scheme, begun in 1956, was one of the earliest attempts to rationalise tenure in the Northern District and to increase agricultural productivity. Under this scheme all lands on which cash crops were being planted were to be registered by the Council after a survey by chain and compass. The individual in whose name the land was registered could transfer it or nominate heirs to it without reference to the clan or any other group. The scheme was superseded by the tenure conversion legislation of 1962-63.[1]

A second post-war tenure innovation in the Northern District was the Yega agricultural scheme[2] under which in 1960 a group of villagers agreed to set aside a portion of uncultivated land for use by individual members of the group. External boundaries were agreed upon and individual blocks were marked out and plotted. The 1962-63 land legislation has enabled persons holding title under native custom to convert to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963 and on 16 December 1965 fifty-six applicants from Yega were granted individual titles to blocks averaging ten acres in area (Smith 1965).

No conversions were made under the 1962-63 legislation until late 1964. Following a recommendation from the Land Development Board it was decided that conversion under the new legislation should be confined in the first instance to the Northern District in order to test and refine procedures. Applications for conversion were being received at a rate of over one hundred per month in the Northern District during 1965. At the end of December 1965, thirty-four tenure conversion schemes[3] were under way in the Northern District, covering 1,725 blocks (i.e. farms) and 33,566 acres. By 10 February 1966 Land Titles Commission hearings had been completed for five schemes, covering 219 blocks and 4,328 acres.[4]

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1 (continued)
361 themselves in small groups over the face of the country is growing in the land.' Feinberg (1956) suggests that the tendency to spread in this way is common in recently contacted societies.

1 For details of the Higaturu Council registration scheme see Crocombe and Hogbin 1963:89-96.

2 For a detailed discussion of the Yega scheme see Dakeyne 1965.

3 Each of which comprised up to sixty or more blocks (each of which would become one farm).

4 In addition, 120 blocks (3,148 acres) had been formally surveyed; 269 blocks (2,960 acres) were awaiting survey; and 596 blocks (12,570 acres) were awaiting investigation by officers of the Department of Agriculture.

654 Planting of cash crops on converted blocks has proceeded steadily.
657 The forty blockholders at Ombi-Tara planted an average of three
311 acres of high-yielding rubber each in the first fourteen months.
241 At Barisari fifty-six blockholders have planted an average of two acres of coconuts in fourteen months and this was expected to increase to four acres by the end of 1966 (Williams 1966:6). Blockholders at New Warisota have planted an average of three acres of cocoa after eighteen months. By contrast, fifty-seven farmers at the Yega scheme have averaged slightly less than one acre of cocoa planted in more than three years.

654 A rough attempt was made to estimate the value of the time,
657 materials and services expended on the conversion schemes in the Popondetta area.[1] This worked out at approximately $8 per acre[A] or $162 per block.[B] This suggests that the growth of conversion throughout Papua-New Guinea on a sufficient scale to have a significant economic and social impact will depend, inter alia, on the development, with experience, of less costly technical and administrative procedures.

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1 See Appendix A.[C]

A [Corrigendum: For $8 read $6--Analyst]
B [Corrigendum: For $162 read $116--Analyst]
C [See Category 423, pp. 38ff.--Analyst]

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the Land (Tenure Conversion) Ordinance 1963.[1]

[621 614] Ombi and Tara contain two clans, Musu and Kusi. The Musu clan is concentrated in Ombi village and the Kusi in Tara. However, Ombi has three Kusi households and Tara has one Musu.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (Native Regulation Ordinance 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 49ff.--Analyst]

17: Norawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

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242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
[654] mental stations at Itikinumu and Bisianumu. Villagers can buy seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in the two villages to discuss how the rubber should be planted. The suggestion of a communal plantation received little support, which is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
[425] suggested that each man might plant some of the new high yielding rubber on his own land. He was supported in this by Charles and eventually the people asked for individual blocks of land. There appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
177 Fisk's contention (1964:159) that the personality and character of
654 the administrators, officials, missionaries and other members of the advanced sector involved are often as important to the success of a planned programme of intervention in a subsistence economy as the composition of the programme itself. Although the Agricultural Officer has since left the country he is warmly remembered by the Ombi-Tara people. It is a tribute to his understanding and tact that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
423 and the Agricultural Officer during late 1963 and early 1964. It
[311] was decided that 800 acres of the total area claimed by the two clans should be converted into forty blocks of twenty acres (see the conversion plan on p.12). Most of the 800 acres was formerly covered with bush and appears to be of relatively uniform agricultural potential.

657 The unconverted land outside the scheme has not yet been surveyed
423 and estimates of its area vary from 2,000 to 4,500 acres. All
425 rights to land held by individuals before conversion have been
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657 abolished by agreement of the two Ombi-Tara clans,[1] including both
423 rights to the 800 acres which have been converted and to land
425 remaining outside the scheme.
614 Each twenty acre block is now held under individual registered title by one man, the blockholder. No rights are held in any block by the clans or other entities.

Lands held by members of the Muau and Kuai clans are still separate, and a large tree stump continues to mark the boundary between them. However, while individuals formerly had some rights in clan land held under customary tenure the land outside the conversion scheme is now held communally by agreement of clan members.[2] The clan leader has control of the unconverted land and his approval must be gained by anyone wishing to cultivate it.

However, each man is considered by the villagers to have the presumptive right to clear the bush on unconverted land behind his block in order to extend his planting as far as the clan boundary. He may do so without consulting the clan leader, and regardless of who held rights to the land under the old system. This right is not recognised in law, and appears to be derived from traditional practice. A similar presumptive right of extension at the rear of one's block was agreed upon by the Yega villagers (Dakeyne 1965:136).

The conversion process

657 The Department of Agriculture carried out a preliminary survey
423 of the land to be converted in July and August 1964, clearing bush from what was to be the access road and along the boundaries of the blocks. During December 1964 and January 1965 field staff of the Land Titles Commission, assisted by Department of Agriculture personnel, completed the surveying and marked all corners with cement and wooden pegs.

657 Thirty-five applications for blocks had been formally lodged up
423 to 9 February 1966 when the Land Titles Commission conducted its
425 hearing. No objections were raised so unless there is an appeal within ninety days, individual title in fee simple would be granted to each of the thirty-five on 9 May 1966.[3] Eight more men wished to apply in the near future. Since only forty blocks were marked out, three of these eight men intended to apply for blocks as yet unsurveyed.

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[1] See p.27 ff for some problems raised.[A]

[2] In law it is regarded as being held under 'customary tenure'.

[3] There were no appeals. Titles had not been issued at the beginning of November 1966, but it was expected that they would be issued soon.

A [See Category 423--Analyst]

Allocation of blocks

659 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kusi clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kusi land, reportedly because of a shortage of Mumu land. The Kusi clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old G.C.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the
182 new tenure system. Interclan co-operation is seen in the leader of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Musu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Musu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
177 of the savings account, said that they had first heard of blocks through the Sangara ex-servicemen's resettlement (not conversion) scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
[185 which many Ombi-Tara people find attractive. Several people sug-
46] gested that they would like to employ labourers and work less hard themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Hanuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:5): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

659 423 182 Since conversion the blockholders have each planted an average of three and a half acres of high yielding rubber and some have cleared a further two or three acres in preparation for further planting.

311 241 Most households are interplanting their food crops with the rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

659 423 182 [361] Those people whose blocks are closest to the village have tended to remain in the village. Those with more distant blocks have either abandoned their village houses and moved to the blocks - six families have done this - or planted some food crops on clan land close to the village to avoid having to walk long distances to get food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or [illegible] building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

657 The Local Government Councillor presumed the Administration
423 wanted people to stay in the village. He said that he would prefer
192 to live on his block but would not move as he might be gaoled for
361 doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 The land tenure system lies at the heart of social organisation
423 and 'may actually define the social and economic status of indivi-
182 duals in an agrarian economy' like that of Papua-New Guinea (Parsons 1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

657 423 been at Ombi-Tara, in favour of briefer parties which distract less from market oriented activities.[1]

182 [829] There was verbal evidence at Ombi-Tara of further rejection of old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] [554] [614] Leadership in the traditional societies of Papua-New Guinea is generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] [556] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] [622] The functions of the clan leader are little changed by the new tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
179 Blocks were cleared by kin groups in accordance with custom. Two
[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
● 657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the
[198] traditional Orokaiva inheritance pattern, under which the first son generally has some precedence. The first son is not, however, the sole owner but rather the nominal trustee of the land for all sons. If the landowner has no sons, his daughters may keep the land in trust for their sons and in some cases the daughter's husband may also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
182 but a few general points may be made. There was no set routine in
512 the sense of particular days being set aside for particular kinds of work. A number of people reported that Wednesdays and Fridays are set aside for Mission and Council work when required. During our stay no Mission work was done and Council work was done only on the first Friday, when most of the men went to a village two miles away to cut the grass around the Administration school, due to open the following week. Gambling occupied many people for much of Saturday and Sunday but others carried out normal work in the gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
182 and wives more on food crops as has been observed at times elsewhere.
[462]

[464] Five men were employed on maintenance work on the Popondetta-
[465] Kokoda road near Ombi for the full period of our stay, receiving $6.42 a fortnight. The need for cash to pay the Council tax and the Mission jubilee contribution led five others to work on road maintenance during the final week of our stay. Although working a thirty to forty hour week, the five longer term roadworkers have planted an average of 410 rubber seedlings each which is greater than the average of 346 seedlings for all Ombi-Tara blockholders.

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
177 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.A

A [See Category 423--Analyst]

657 initiated and hence are not party to the agreement to set aside 800
423 acres for individual holdings. Problems could arise if, on return-
177 ing home and finding all forty blocks occupied, they should refuse to accede to the new arrangements. It also remains to be seen whether the man of Musu clan whose block is on Kuei land will be permitted to extend his holding beyond the present twenty acres. The leader of the Kuei clan suggested to us that this would be allowed.

Concepts of title. While everybody interviewed said that the blocks belong solely to individual blockholders it remains to be seen whether in future all people will be prepared to cede to the blockholders all rights which they previously held in the converted area.

There was considerable confusion concerning the exact time that the blocks became the property of individual holders. Most people considered that this occurred immediately after the application forms had been signed, while some thought it was as soon as survey had been completed and others thought it was after the blocks had been distributed. Nobody realised that the block did not legally become his until ninety days after the Land Titles Commission hearing.

No one understood the purpose of the Land Titles Commission hearing. A genealogy was prepared in the hope that this might be required by the Land Titles Commissioner. At the hearing, the Commissioner read out the names of the thirty-five applicants and asked each applicant to call out the number of his block. The Commissioner explained that he would send a list of the applicants' names to Port Moresby and after ninety days each man would get a pas[1] - the title document - saying the land was his.

After the hearing the Ombi-Tara people indicated in conversation that they thought the Commissioner had come to check that each man knew the number of his own block. They considered that the piece of paper which they would get merely confirmed that each man held his own block as he had done for the past seventeen months. This lack of understanding by the villagers of the true function of the Land Titles Commission hearing could be significant if objections to conversion were raised at the hearing.

657 Development of a market in land. The Administration hopes, by
423 converting land from customary tenure to holding under individual
425 registered title, to facilitate the development of a market in land. This is essential to ensure that no person with agricultural ability and initiative is deprived of land. It has been pointed out by

[1] A neo-Melanesian word meaning 'letter'.

657 Lord Hailey (1957:802) in Africa that people showed great reluctance
423 to face commercialisation of land rights, by sale, mortgage or lease.
425 I cannot say how far conversion will contribute to the development of a market in land as it is not clear whether the Ombi-Tara people understand that in law each man may sell his block to anyone he wishes. An attempt was made to gauge this with three questions.

> If any man from Ombi wanted to sell his land and go and live in Port Moresby, is he allowed to do that?
>
> Would he have to discuss it with somebody first?
>
> What if the clan leader said 'no': could he still sell it?

Five people, including Charles and the two clan leaders, replied that individuals could dispose of their blocks without consulting anyone, even if the clan leader opposed the sale. Ten more said that a man was allowed to sell his land but would have to discuss it first, and could not sell if the clan leader was in opposition. The remaining twenty-five said they could not sell or did not know whether or not they could sell. A common reply was that no one wanted to go and live in Port Moresby but that if anyone did go he would leave the land in the care of his son or some other kinsman.

657 Cash crops planted before conversion. There are a number of
423 cases at Ombi-Tara where cash crops planted by one man before conversion are now situated on another man's block. The usual solution to this problem has been for the planter (or in the event of his death, his heir) to retain sole rights to the crop. When the trees die out the land will revert to the blockholder, and the planter may not plant more trees on the same land.[1]

There have, however, been some variations from this solution. Where the crop concerned was cocoa the planter has in many cases abandoned it, allowing the blockholder to clear it and plant rubber. In one case sole rights to the cocoa will be retained by the planter until the rubber begins to yield a return in about seven years, when rights to the cocoa will be ceded to the blockholder. In another case the cocoa is jointly harvested with planter and blockholder sharing the income received from the sale of beans. Each of these solutions was worked out by negotiation between the persons concerned, and appears to have been determined largely by considerations of kinship and mutual obligation.

The existing situation contains potential difficulties. The blockholder, or his heir, may decide that he needs the land on

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[1] This seems to follow traditional Orokaiva practice, as described by Dakeyne (1965:61): '...the right to harvest the produce of a permanent tree is vested in the planter or his heir, irrespective of the rights to the land on which the tree is planted.'

657 423 which the planter's crops are standing and may wish to cut down the trees. Where the planter's crop is coffee, the trees may reseed so that the grove may not die out, and the planter may retain a semi-permanent right to portion of the blockholder's land. If the coffee does die out, the planter may still be able to make out a case that he has a continuing right in the land, claiming that when individual title was granted in 1966 the blockholder recognised his right to use part of the block for coffee growing. Similar problems may arise where one man has built his house on another man's block. Eight of the nine houses of Tara village, and two of the houses in the hamlet located forty-five minutes' walk from Ombi are situated on blocks belonging to persons other than the householder.

Multiplicity of rightholders. While it is theoretically possible to provide against more than one person holding rights to converted land by appropriate legislation, there is no simple way of preventing de facto multiple rightholding since no law can prevent the villager from meeting his moral obligations to his relatives. It would not be unique to Papua-New Guinea if multiple rights to land should exist despite legislation forbidding them.[1] In Tahiti, land rights are still passed on to illegitimate children although this is against the introduced law. Land fragmentation in Tahiti after the legislation to individualise tenure is worse than it was previously (Panoff 1964:136-9). In the Cook Islands the attempt to individualise tenure was followed paradoxically by a significant increase in the number of rightholders per acre of land (Crocombe 1964b:127).

We saw earlier that most Ombi-Tara people wish to continue their traditional pattern of inheriting rights to land and that there are signs that traditional obligation patterns may be continuing. The effect of these factors on the number of rightholders per block, and therefore on the achievement or otherwise of the policy of individualising tenure, may be significant in future.

Planting before title is granted. Planting of rubber on the blocks at Ombi-Tara began in September 1964, twenty months before title was due to be granted. Planting of rubber is continuing on the four demarcated and three undemarcated blocks which have not yet been formally allocated.[2] Planting before title is granted is

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[1] The existence of multiple rights and the spreading of an individual's usufructuary rights over several pieces of land may, if land is of uneven quality, equalise people's shares in the agricultural potential of an area. Consolidation of holdings in such areas tends to have the reverse effect.

[2] Two of the undemarcated blocks are situated immediately behind demarcated blocks (see the conversion plan). This may cause difficulties if the holders of the demarcated blocks exercise their

A [See Category 102, p. 12--Analyst]

657 423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

1 See p. 6.A
A [See Category 241--Analyst]

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy [464] access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling [177] rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

657 productivity. Consolidation of an individual's scattered plots
423 reduces the amount of time devoted to travelling and increases the
182 acreage which can be planted with cash crops in any one location.
241 The road running through the converted area allows easy access to all holdings and facilitates interpersonal co-operation by reducing the amount of travelling time involved.

657 Consolidation has facilitated the provision of assistance by
423 Department of Agriculture staff, increasing the effectiveness of
182 officers. Planting, pest control and general crop maintenance can
242 be more efficiently supervised where there is easy access to all holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

657 Tenure conversion appears likely to enable economies of scale
423 when the rubber trees come into production, hence increasing the
182 productivity of village labour. Economies may be gained in pro-
433 cessing the latex, since the relatively large output may warrant the introduction of larger and more efficient processing equipment; in transporting the processed rubber in bulk; and in marketing. One of the problems previously faced by Ombi-Tara cocoa producers, especially when prices were low, was that buyers did not consider it worthwhile to make the journey to Ombi-Tara from Popondetta for the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

657 to be effective, must be associated with improvements in technical
423 skills and the provision of credit, transport and marketing facili-
182 ties. That individualisation of tenure does not necessarily lead
433 to improvements in productivity has been demonstrated in many areas including South Africa (Yudelman 1965:239), Ongoho in the Northern District of Papua (Crocombe 1964a:36), and the Cook Islands, where Crocombe (1964b:142) concluded that

> the issue of registered freehold titles by the Land Court of itself made little if any contribution to output in the early decades of the century and of recent years has had a negative effect.... Security of tenure must also be complemented by other measures if major increases in productivity are to result.

Tenure conversion at Ombi-Tara has enabled labour inputs in the establishment and maintenance of the rubber plantations to be reduced and appears likely to lead to economies of scale when the trees come into production. Conversion has facilitated, and has been complemented by, increased agricultural assistance. These factors together have contributed to the increase in cash cropping activity and improved labour productivity at Ombi-Tara.

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[429] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [198] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

423 I am unable to determine how far tenure conversion will facili-
657 tate the development of a market in land.

Several problems apart from those considered under the individualisation of tenure may arise from tenure conversion as it operates at present. The villager's concept of individual registered title appears to differ from that of the framers of the tenure conversion legislation. There may be future disputes over rights to cash crops planted before conversion now situated on the block of a man other than the planter. Because of the long delays required by the conversion legislation, planting of cash crops has preceded the granting of individual title by up to twenty months, which could be significant if objections to conversion were raised at the Land Titles Commission hearing. The consolidation of holdings implies the cessation of the traditional bush fallowing system of cultivating food crops, which may lead to problems of pest infestation and declining soil fertility. A lack of credit facilities could hamper efforts to increase cash cropping at some tenure conversion schemes, particularly those requiring large capital outlays for processing, transport and marketing. This is not, however, a current problem at Ombi-Tara.

The Ombi-Tara people regard conversion, which they perceive as consolidation, as the road to improved standards of living. While this faith is retained there seems every chance that conversion will succeed in raising agricultural output. Continued faith will probably depend on the extent to which the expected improvements in terms of living standards and income are in fact achieved.

Appendix A

Process and costs of tenure conversion in the Northern District

121 This Appendix attempts to estimate roughly the economic costs of tenure conversion. Land tenure conversion can only be justified if the economic and social benefits to be derived from it exceed the economic and social costs of its execution. Information is not available to allow comparison of costs and benefits from alternative methods of promoting agricultural development.

Procedure

659 423 The procedures to be followed in converting land held under customary tenure to individual registered title are set out in the Land (Tenure Conversion) Ordinance 1963 and the Land Titles Commission Ordinance 1962. The country is divided into a number of 'adjudication areas' and within each a 'demarcation committee' (with a majority of indigenous members) is established to prepare demarcation plans marking the boundaries of all native held land within the area. If a group is acknowledged as the undisputed holder of an area of land, members of the group may apply to hold portions of the land under individual registered title.

The Land Titles Commissioner prepares a conversion plan and publishes notice that the application will be dealt with after three months, during which time objections may be lodged. If he is satisfied that all persons with rights in the land agree to the application and that adequate compensation is provided for interests abolished or reduced by conversion, the Commissioner issues a conversion order. Ninety days is allowed for appeal and thereafter the conversion order is sent to the Registrar who registers the applicant as the owner of an estate in fee simple. Upon registration of individual title the land ceases to be subject to native custom and all previously existing rights are abolished.

The procedure followed in the Northern District differed from that laid down in the Ordinance in that conversion began there over a year before adjudication areas were mapped out (in January 1966) and no compensation was paid to persons losing rights to land - nor has any been requested by villagers.

657 423 The procedures which operated from the introduction of tenure conversion in the Northern District are summarised in Appendix B. Procedure was altered by Circular 31.1.9 from the Administrator to all field officers, dated 3 November 1965. Since all tenure conversions up to 1 January 1966 were carried out under the old procedure this has been used as the basis for the following cost estimates.

Method of estimating costs

[128] An attempt was made to gather information on eight conversion schemes in order to estimate the costs of tenure conversion in the Northern District. The stage of development reached at these eight schemes by 9 February 1966 is set out in Table 1. All except the Dapari scheme were among the first ten conversion schemes promoted, and consequently are among the most advanced conversion projects in the country.

Table 1

The state of eight tenure conversion schemes at 9 February 1966

Name of scheme	Blocks	Acres	Crop	Stage of progress
Barisari No.1	55	1,680	coconuts	Hearing completed for 47 applicants on 29 Sept. 1965. Applications filed for other blocks.
New Warisota	32	640	cocoa	Hearing completed 14 Dec. 1965.
Ahora	36	720	cocoa	Hearing completed 28 Jan. 1966.
Ombi-Tara	40	800	rubber	Hearing for 35 applicants completed 9 Feb. 1966.
Somara	10	200	rubber	Awaiting conversion plans to accompany applications.
Barisari No.2	7	210	coconuts	Awaiting conversion plans to accompany applications.
Dobadura-Buna	63	1,260	coconuts	Awaiting applications.
Dapari	44	1,000	rubber	Land Titles Commission survey in progress.

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[128]

The costs in salaries of each stage in the conversion process were estimated separately. The number of days[1] spent by an officer on a particular task was converted into the number of days needed per thousand acres and per hundred blocks. Salaries assumed for costing purposes are set out in Table 2.

Although every effort was made to cross-check all information on costs, the figures represent an approximation only. Where possible Field Officer Journals were consulted to determine the number of days each officer spent at a particular scheme. Otherwise estimates were made from discussions with officers concerned. The number of vehicle days in each stage was estimated from the rest of the data.[2]

Salary costs of each stage of the conversion process

(i) Preliminary discussions. Officers of the Department of Agriculture, Stock and Fisheries (D.A.S.F.) or sometimes the Department of District Administration (D.D.A.) are approached by village people who request a tenure conversion scheme for their area. Discussions follow on the nature and implications of conversion. This involves two days each for an Agricultural Officer and his assistant. The number of days spent by officers does not vary with the size of the scheme.

(ii) D.A.S.F. investigation. Agricultural Officers investigate and submit a report on accessibility, names of neighbouring villages and schemes, topography, soil type, vegetation, people's attitude to conversion, crop recommendation and a recommendation concerning priority to be given to the scheme. Estimated time at Ombi-Tara was four days each for an Agricultural Officer and assistant.

(iii) District Development Committee meeting. The D.A.S.F. report goes before an informal meeting of the District Development Committee which allocates priorities for further investigation. Tenure conversion is only one of the committee's many spheres of

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[1] Based on 219 working days a year for expatriate officers, being 365 days less forty-five days leave (overseas officers are entitled to three months leave after twenty-one months' service), less ninety-one Saturdays and Sundays, less ten statutory holidays. Local officers receive three weeks annual leave and hence have 236 working days.

[2] 'Vehicle' is used in this appendix to include vehicle and driver unless otherwise stated. A full day for vehicle and driver was assumed if the officer requisitioning the vehicle spent the whole day at a scheme and returned the same evening. A half day was assumed if the officer was left at the scheme and the vehicle returned to Popondetta.

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Table 2

Salaries (and allowances) assumed for costing purposes*
($)

	Annual salary	Salary assumed	Allowances added**	Total	Cost of one man-day
Land Titles Commissioner	6,050	6,050	818 +360***	7,228	33.0
Field Officer - L.T.C.	2,084-2,588	2,336	818	3,154	14.40
Field Assistant - L.T.C.	440-760	600	-	600	2.54
Agricultural Officer, grade 1	2,106-3,814	2,960	818	3,778	17.25
Asst. Agric. Officer	720-1,000	860	-	860	3.64
Agric. Assistant	440-760	600	-	600	2.54
Farmer Trainee	172	172 (incl. rations $133)	-	172	0.73
Asst. District Officer, grade 1	4,038-4,324	4,196	818	5,014	22.89
Interpreter - Dept of District Admin.	440-760	600	-	600	2.54
Clerical Assistant	440-760	600	-	600	2.54
Draftsman, grade 2	3,814-4,058	3,936	818	4,754	21.71
Clerk	2,838-3,326	3,082	818	3,900	17.81
Driver	440-760	600	-	600	2.54
Vehicle	($0.70 per hour = $5.60 per day)				

Camping allowance (per night in the field for all except Farmer Trainees)

expatriate, single	1.05 per day
expatriate, married	2.00 per day
local, single	0.45 per day
local, married	0.75 per day

* Salaries and allowances are as listed in the Public Service (Salaries and Overtime) Determination 1964 and the Public Service (Overseas Officers' Allowances) Determination 1964. Most second division salaries were increased by 1½ per cent during late 1965. These increases have not been taken into account. Vehicle costs are official estimates.

** Overseas officers receive an Overseas Allowance ranging from $300 to $960 per year depending on marital status and length of service, and a cost of living allowance of $370 per year. They are required to pay $52 per annum as contributions to the cost of child allowance payments. Therefore, assuming that the minimum Overseas Allowance is applicable, $818 per annum has been added to the basic salary ranges of overseas officers for costing purposes ($300 + $370 - $52). One man in five is assumed to be married. Hence an extra $360 per annum or $1.64 per man-day has been added when costing one-fifth of the man-days involved in conversion.

*** The Commissioner is assumed to be married.

657 423 interest and the time it spends on conversion has not been included in these cost estimates.

(iv) D.D.A. investigation. An officer investigates the ownership of the land to be converted. This involves walking around the boundaries of the land with representatives from the claimant clan or clans, and neighbouring clans. The investigator checks whether any persons are absent from the area to be converted and whether they are agreeable to conversion. He submits a written report. There was no D.D.A. investigation at Ahora, Barisari No.1 or New Warisota, all of which began before mid 1965 when the D.D.A. investigation was introduced. The figures for Dobadura-Buna were not available. The schemes at Ombi-Tara, Somara and Dapari were investigated jointly, and D.D.A. officers accompanied by Land Titles Commission surveyors spent two days there, but they spent five days at Barisari No.2.

(v) Survey. If D.D.A. findings are satisfactory, Land Titles Commission staff make a chain and compass survey of the scheme to a design approved by D.A.S.F. Block boundaries are cut with the help of D.A.S.F. staff and local villagers and corners are marked with cement and wooden pegs. A plan is prepared from this survey and reduced size duplicate copies are made.[1] Time involved in surveying includes that spent on preliminary discussions, preparations, obtaining supplies, travelling, surveying in the field, and plotting and mapping. The most reliable information is for Ombi-Tara and Somara. The estimates for most of the others are almost certainly an understatement. The relatively large differences in time involved at different schemes (Table 3) reflect partly differences in topography and density of vegetation.

During the twelve months to 5 October 1965 nine schemes totalling 294 blocks and 6,650 acres were surveyed. Excluding work other than conversion, a total of seventeen Field Officer months was worked in the period, giving on the average 17.3 blocks surveyed per Field Officer month. Two Field Assistants were employed throughout. Since requests for tenure conversion were being received at a rate of more than one hundred per month during 1965, a large backlog remained.

(vi) Completing applications. An Agricultural Officer obtains five copies of each of the Application for Registration, the conversion plan, and the statutory declaration by the Land Titles Commission surveyor, and assists the village people to complete their application forms. This is time-consuming as repeated visits are often required to locate people who were absent at the time of the first visit. This involves an estimated four days per thousand acres for an Agricultural Officer and nine for his assistant.

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[1] The Ombi-Tara conversion plan is reproduced on p.12.A

A [See Category 102--Analyst]

Table 3

Survey - man-days per 1,000 acres

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1. Salary and allowances

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	45	79	32	45	-	90	5
New Warisota	26	18	3	-	30	-	14
Ahora	27	27	3	27	27	-	11
Ombi-Tara	94	94	33	43	352	525	12
Somara	110	110	10	-	585	440	65
Barisari No.2	72	72	-	72	-	144	24
Total	374	400	81	187	994	1,199	131
Average	62	67	14	31	166	200	22

2. Camping

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	40	74	28	40	-	-	-
New Warisota	18	10	-	-	26	-	-
Ahora	21	21	-	21	22	-	-
Ombi-Tara	87	87	26	39	225	-	-
Somara	60	60	-	-	320	-	-
Barisari No.2	48	48	-	48	-	-	-
Total	274	300	54	148	593	-	-
Average	46	50	9	25	99	-	-

Abbreviations:

F.O. Field Officer, Land Titles Commission
F.A. Field Assistant, Land Titles Commission
A.O. Agricultural Officer
A.A.O. Assistant Agricultural Officer
A.A. Agricultural Assistant
F.T. Farmer Trainee
Veh. Vehicle

(vii) Processing applications. An Agricultural Officer spends about two days per 1,000 acres checking, amending and correcting all applications.

(viii) Registering applications. The applications are registered in the office of the Deputy District Commissioner by a Clerical Assistant who spends about one day per 1,000 acres.

(ix) Drafting notices of hearing. The applications are forwarded to the Land Titles Commissioner who makes out notices of the Land

657 423 Titles Commission hearing. This occupies the Commissioner for one day.

(x) Conducting hearing. After at least three months the Land Titles Commission hearing is conducted. This is usually accomplished in one day's work each for the Commissioner, a Field Officer and a Field Assistant.

(xi) Drafting conversion orders. Conversion orders are completed by the Land Titles Commissioner and if no objections are lodged within ninety days they are sent to the Registrar of Titles in Port Moresby. This takes the Commissioner about one day per 1,000 acres.

(xii) Drafting and registering titles. The applicant is registered as the owner of an estate in fee simple by the Registrar of Titles in Port Moresby. Three copies of each individual title are drawn up by hand by a draftsman in the Registrar-General's Branch, Department of Law. No individual title documents had been drawn up by the end of February 1966 but it was assumed that a scheme of 1,000 acres containing fifty individual blocks would require about fifty days for a draftsman and a clerk.

(xiii) Programming and progress reports. At different stages of the conversion process an average of four days is spent by Agricultural Officers organising, planning, checking on conversion schemes and writing progress reports.

(xiv) Total salary costs. The costs in salaries of the thirteen stages of the conversion process are summarised in Table 4.

Other costs

The total costs of conversion must include capital costs which are even more difficult to estimate than the recurrent costs.

(i) Staff housing. Assuming 1,000 blocks of twenty acres are converted each year,[1] we can make an approximate estimate of the staff housing requirement of the tenure conversion programme.[2]

Table 5 sets out the number of man-days spent on converting 1,000 blocks by those officers for whom housing is provided.

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[1] This assumption was made in estimating the funds required for tenure conversion during the five year period 1966-67 to 1970-71 (Department of Agriculture 1965:1).

[2] It was assumed in the D.A.S.F. plan that housing would be provided for all officers engaged on conversion except Farmer Trainees, interpreters, and drivers; and that one officer in five would be married. These assumptions are followed here.

Table 4

The process of tenure conversion - man-days per 1,000 acres and salary costs per 1,000 acres and per 100 blocks

Process	Man-days per 1,000 acres																					Cost per 1,000 acres $	Cost per 100 blocks $
	Com.	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	A.D.O.	Int.	C.A.	Dft.	Clk	Veh.	Camping F.O.	F.A.	A.O.	A.A.O.	A.A.	A.D.O.	Int.			
Prelim. discussions	-	-	-	2	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-		36	36
HADP investigation	-	-	-	4	-	4	-	-	-	-	-	-	1	-	-	3	-	3	-	-		35	185
DBH investigation	-	4	-	1	-	-	-	4	6	-	-	-	6	1	-	-	-	-	1	1		226	530
Survey	-	62	67	14	31	146	200	-	-	-	-	-	22	44	50	9	25	99	-	-		2,346	5,229
Complete applications	-	-	-	4	-	9	-	-	-	-	-	-	4	-	-	-	-	3	-	-		129	257
Process applications	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		35	71
Register applications	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-		3	3
Notices of hearing	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		33	33
Hearing	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-		33	33
Conversion orders	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		33	33
Register titles	-	-	-	-	-	-	-	-	-	-	50	50	-	-	-	-	-	-	-	-		2,089	4,918
Programming	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		71	71
Total man-days	3	67	68	31	31	181	200	4	6	1	50	50	36	47	50	12	25	107	1	1			
Cost per 1,000 acres ($)	99	986	172	546	113	460	146	93	15	3	1,102	987	293	58	26	13	13	55	1	1		5,182	
Cost per 100 blocks ($)	99	2,238	399	1,037	295	902	315	209	43	3	2,206	1,814	427	131	60	33	33	107	2	1			10,532

Abbreviations:

Com.	Land Titles Commissioner
F.O.	Field Officer, Land Titles Commission
F.A.	Field Assistant, Land Titles Commission
A.O.	Agricultural Officer
A.A.O.	Assistant Agricultural Officer
A.A.	Agricultural Assistant
F.T.	Farmer Trainee
A.D.O.	Assistant District Officer
Int.	Interpreter
C.A.	Clerical Assistant
Dft.	Draftsman
Clk	Clerk
Veh.	Vehicle

Columns do not add to totals because of rounding

Cost per acre - $ 5.18

Cost per block - $105.32

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Table 5

Man-days per 1,000 acres and per 1,000 blocks for officers for whom housing is provided

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	Man-days per 1,000 acres	Man-days per 1,000 blocks
Overseas officers		
Land Titles Commissioner	3	60
Field Officer - L.T.C.	67	1,340
Agricultural Officer	31	620
Asst District Officer	4	80
Draftsman	50	1,000
Clerk	50	1,000
Total	205	4,100
Assistant Agricultural Officers	31	620
Other local officers		
Field Assistant - L.T.C.	68	1,360
Agricultural Assistant	181	3,620
Clerical Assistant	1	20
Total	250	5,000

Overseas officers would require 4,100 man-days on a year's programme of converting 1,000 blocks, and thus need housing for nineteen overseas officers (four married and fifteen single). Housing has also to be provided for three Assistant Agricultural Officers (one married, two single) who spend 620 man-days on converting 1,000 blocks and for twenty-one other local officers (four married, seventeen single) who spend 5,000 man-days.[1] The cost of providing housing for these officers is set out in Table 6. The annual cost of providing staff housing for a programme to convert 1,000 blocks averaging twenty acres in area is $9,030 which represents $0.45 per acre or $9 per block.

(ii) Office facilities. Proportionate costs of office space have been estimated at $0.05 per acre or $1.00 per block.

(iii) Stationery and materials. Each individual title document will require materials which are estimated by persons concerned with them to be worth $0.60.

[1] Using days of work as set out in footnote 1, p.40.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

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Table 6

Cost of providing staff housing for a one year programme to convert 1,000 blocks

	No. of officers required	Total cost* ($)	Cost of housing per year (1/15th capital cost)
Overseas officers			
single	15	75,000	5,000
married	4	40,000	2,666
Assistant Agricultural Officers			
single	2	4,000	266
married	1	4,000	266
Other local officers			
single	17	8,500	566
married	4	4,000	266
Total	43	135,500	9,030

* Based on Department of Agriculture 1965:3.

The costs of field equipment (e.g. compasses, cement pegs, etc.), agricultural extension work, the provision of planting materials,[1] transport and marketing facilities have not been included in this cost estimate as they are not part of the immediate process of tenure conversion. They are, however, essential to the success of any conversion scheme and may add significantly to the overall costs of the conversion programme.

Total costs

Insufficient data were collected to enable an accurate estimate of the total costs of tenure conversion. The available information is summarised in Table 7.

[1] D.A.S.F. estimates that the cost of planting materials over five years for 2,500 blocks on which rubber or coconuts are grown would be $233,200 or $93.28 per block. Farmers on the other 2,500 blocks could obtain cocoa and coffee planting materials locally at little or no cost.

17: Morawetz U-4,5 (1966) 1967 OJ23 Orokaiva OJ23
Ombi-Tara

Table 7

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The costs of tenure conversion per acre and per block

Item	Cost per acre $	Cost per block $
Salaries	5.10	105.50
Staff housing	0.45	9.00
Office facilities	0.05	1.00
Stationery and materials	0.03	0.60
Total	5.63	116.10

Note. Field equipment, extension services and planting materials have not been included.

It may be useful to spell out some of the implications of these estimates. In the twelve months to October 1965 work was commenced in the Northern District on converting 2,000 blocks (covering about 40,000 acres). The cost to the Administration when conversion of these blocks is complete (excluding the provision of planting materials, field equipment and extension services) will be about $232,200.

If the Administration were to extend tenure conversion to 5 per cent of indigenous heads of households in Papua-New Guinea each year (that is, to about 20,000 people, assuming one person in five is a householder) the cost (excluding the provision of field equipment, extension services and planting materials) would be about $2,322,000 per annum. There may be ways in which these costs could be reduced, but these fall outside the scope of the present paper.[1]

[1] Discussion of such topics as degree of accuracy of survey, maximum use of indigenous staff, costs of registration procedure, and the possible delegation of certain functions to local officers and/or local governments, merit discussion. It may be that costs of future conversion could be significantly reduced. On the other hand, the changes in procedure introduced by Circular 31.1.9 from the Administrator, which had not been put into effect at the time of this study, appear likely to increase costs and slow down the conversion process. In particular, the reports from both the District Development Committee and the Department of Agriculture are to be sent to the Administrator's Headquarters Advisory Committee on Land Tenure Conversion.

262 The principal food at Ombi-Tara is taro, while other foods of importance include sweet potatoes, yams, bananas and plantain, edible pit-pit (saccharum edule) and a wide variety of leaves and bush cabbages. Bread-fruit, pandanus, betelnuts, coconuts, pine-
[224] apple, pawpaw, watermelon and sugar cane are also eaten. The main sources of animal protein are provided by wild pigs, birds, flying foxes and the occasional cuscus. These add variety but provide
231 comparatively little food. The keeping of domestic pigs in vil-
657 lages has been outlawed for health reasons by the Ilimo Local Government Council which serves Ombi-Tara, but one old man, a former clan leader, kept three pigs under his house.

342 Readily available natural vegetation provides housing materials. Timber is used for the framework and walls, blackpalm or timber for the floor, and thatched sago leaves for the roof. Houses have an average life of about four years.

162 The population of Ombi-Tara by clan and location is presented in Table 8.

Table 8

Resident population of Ombi-Tara by clan and location, January 1966

Clan	Ombi			Tara			Blocks			Total		
	M*	F*	C*	M	F	C	M	F	C	M	F	C
Mumu	20	20	56	1	1	2	6	7	13	27	28	71
Kuei	3	3	7	11	8	20	-	-	-	14	11	27
Total	23	23	63	12	9	22	6	7	13	41	39	98

M* Adult males. F* Adult females. C* Children.

[166] [167] [464] Note. In addition there were seven Ombi men and six Tara men absent from the area working for wages, that is, roughly one man away for every three remaining at home.

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services rendered, the villager obtains the assistance of his 602 relatives for heavy work such as the felling of 464 big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fishing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, [578] by pitting traditionally conservative people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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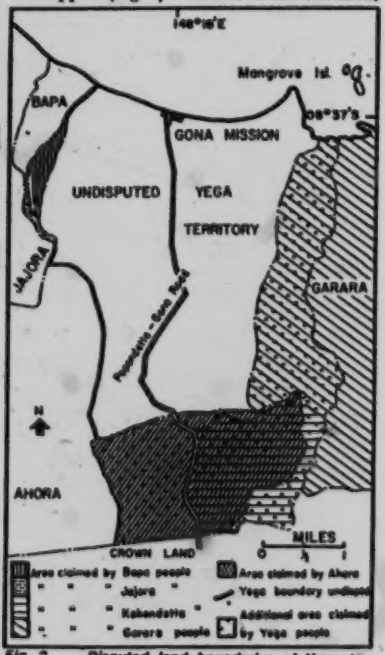

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

[P.6-A]

619
423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
651 forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
[619] divided into sub-clans and lineages; descent is
591 patrilineal. On marriage, a girl leaves her
178 father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

614 An abbreviated table illustrating the Yega
613 social structure is given in Table 1.
[P.6-B)

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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

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[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male members of a clan lived together with their wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement westward along the beach continued until about 1930. People were encouraged to move by the increasing effectiveness of Government control and by the establishment at Gona Mission of a school and hospital staffed by Europeans.

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[P.12-B]

361 The new village sites also reduced walking time to the gardens.

648 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

648 701 722 727 729 659 199 199 491 361 166 [464]

178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14-B]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
area of forest and planted shade trees and
657 young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P 15-B]

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177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[657] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
166 of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accompanied in almost every instance by their wives
592 and children. This situation represents a
166 marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

434 home in the villages. By doing this, they are
431 bringing about changes in the established
178 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was associated with the ceremonial distribution of goods: the recipients were placed under obligation to repay in similar kind at some future date, or else lose status. Among the Yega, the older recipients of gifts in cash or manufactured goods find it impossible to repay such gifts. As a result there has been an increase in the prestige of young or middle-aged, educated men. An instance of this trend was the
[66] almost unanimous election, in 1964, of such
[65] a person, recently returned from paid employment, as the Yega's first councillor on the Oro Bay Local Government Council.

(P.17-B)

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

[158] It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. [684] Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some [861] domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

731 This general irritability was carried back into the villages, where worry was not very much less than in the camps, and even the degree of daily control by European 657 authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be [578] better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being æsthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Bosiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 765 remember the dead in such ways. In the meantime one may hear the drums beating in some villages as the men spontaneously come together for recreation and practice.

731 311 The programme of reconstruction, then, is very much a matter of the allocation of time between such ends. To regard it simply as a matter of building houses and making gardens would be a mistake. But even within that simple framework the rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

731 461 Papuans, and particularly the Orokaiva, work with great vim and energy when they can work as a team, within sight and sound of each other. The melodious song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting.

[657 797] The custom of Government Day, the day a week which is set aside for village hygiene and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

657 So far I have been writing mainly of the immediate problems of re-settlement. The Administration is however taking a much wider view and there is a great deal of

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949. "Co-operative Rumours Kokoda Sub-District."

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

a Co-operative Officer was posted to the Northern Division. His later reports cast further light on the nature of the movement.[8]

When the movement first appeared in Kokoda its apparent objects were to produce rice, as did the more regular co-operatives of the coast, and to build a store at Killerton, the port, apparently with the object of cutting costs. The rumours held that it was an order from the King that co-operatives should be formed, and that there had hitherto been no co-operatives in the area because the Government was angry with the natives for killing some Europeans during the war. Further, the co-operatives would have "bosses" appointed by the mission teacher who led the movement, and as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs. At this point the movement seems to be very similar to a watered-down version of the "Masinga Rule" movement of the Solomons; but there is no clear evidence that there was actually a cargo cult.

The first duty of the Co-operative Officer was to regularize the position of these people, and to do this he visited the villages to obtain lists of contributors of money. He met with some resistance as a government agent, but seems to have been very successful in obtaining public confidence and in most cases lists were made. In accordance with official policy, the money was then handed back to the contributors, with the promise that regular co-operative activity would be supported and that contributions could be collected again when the people were ready for it. The Officer then moved to the Periho area, where the same situation obtained, and began to hull rice. At this stage the volcano erupted.

The reports of the Co-operative Officer at this time were frankly pessimistic. Many people refused to allow him to hull the rice when it was grown, though demonstration hulling tended to alter their viewpoint. The Officer interpreted this as showing that the people did not understand the objects of their activity, and that they were not ready for co-operation. In fact, however, the position was complicated by the way in which the co-operatives had grown up as Mission-sponsored organizations, and the resistance seems to have been not so much to the idea of production, but to the intrusion of Government in a field the people wanted to keep for themselves, with Mission assistance. Government assistance was nevertheless very necessary, as the Mission had allowed crops to ripen without hulling and in general took an unrealistic view of business aspects of the movement.

At the same time it is true that the people were vague and mystical about their activity. Co-operative gardens and co-operative houses were made. The gardens were to produce rice and vegetables for sale. The principal feature of the activity seems, however, to have been religious rather than agricultural. A cross was erected overlooking the garden, and prayers were said before activity took place. The gardens were far too small to be economical—smaller indeed than many gardens of

[8] Co-operative Inspection Reports 1950-51, Co-operative Officer Northern Division to Registrar of Co-operative Societies.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

individual villagers. The houses were built on a standard pattern, not, as might be thought, to act as warehouses or storehouses or as offices, but as eating places for the co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timbeki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

731 the fire. At night it is like a torch, and we do not understand the sign.'

We cannot be entirely sure what the mountain people would have done had they not been under European influence. Informants at Hohorita told me that the people wished to run away, but that the Europeans persuaded them to stay. It is likely that people seriously considered leaving the mountain during the few days before the eruption, but it is also likely that they feared the dangers and troubles that would have followed their departure. Where could they have gone? How could they have found food? Most important of all: would other clans occupy their land during their absence? The evidence shows that, in the circumstances, the mountain people contented themselves with statements of their apprehensions to European authorities and placed upon them the responsibility of deciding what should be done in this unusual and frightening predicament.

731 The two main power centres of the Orokaiva district at that
657 time were both very close to the mountain (see Map II).[A] The headquarters of the Northern District government administration was at Higaturu; Martyr's School and the main mission centre was at Sangara; both these places were subsequently destroyed by the blast and their residents killed. These were the foci of decision. Two of my informants were able to tell me something of what happened there: Fa. Albert McLaren, who was at Sangara until the day before the eruption and Mr. C. Searle who visited Higaturu on Friday, 19 January. Both told me of apprehensive Orokaiva asking European authorities what they should do.

The District Commissioner decided to discourage the people from leaving their home villages. He maintained throughout that there was no need to worry about the mountain. The circumstances that led him to this decision were described to me by Mr. Searle, by Mr. Paul Sebire, Assistant District Commissioner, Popondetta, in
[133] 1966 and by other informants. There had been several earlier eruptions in the district, one at Tufi in 1943 and another at Rabaul in 1937. The District Commissioner at Higaturu, Mr. Cowley, was well informed about the former while the latter had been witnessed by the Chief Justice of the Territory, Mr. M. Philips. The District Commissioner asked the Chief Justice for an opinion and the latter overflew the mountain on Friday, 19 January, to assess the situation. The Chief Justice advised that evacuation of the station was unnecessary. On the assumption that Mount Lamington was like the other volcano which he had seen in eruption, The Chief Justice believed that Mount Lamington could not be very dangerous, seeing that emissions on such a large scale had already occurred. On that premise the pressure built up inside the mountain had already been reduced, and only relatively harmless cold ejecta could now be expected.

A [See Cat. 118, pp. End Map 2(A)-End Map 2(B)--Analyst]

731 This line of reasoning was spread around fairly rapidly.
●657 According to Father Albert, a message from the District Commissioner was read in churches on the Sunday after the Chief Judge's visit, i.e., on the morning of the eruption. This message said that the volcano would erupt, but there would be no reason to worry. Ashes would come but they would be cold. People should not run away. Not only the Churches, but also the Village Constables were advised in these terms. The Village Constable at Sivepe gave me a somewhat different description of the District Commissioner's message, but it was equally reassuring. Supposedly, there was water under the volcano which would come out sooner or later. The people should be told that this would happen. People were told, said the Village Constable, people waited two or three days and then the mountain blew up.

As Sivepe is not particularly close to the district centre of Higaturu, we may notice that district organisation in 1951 must have had a rather efficient communication system, using both the Church network and the Village Constable network. The Village Constable at Sivepe told me that he used to be in very regular contact with Higaturu and that the communication came to him during a routine visit. He added that he had been asked to return the Higaturu the following Tuesday for another meeting about the volcano.

In view of the subsequent events, there has naturally been criticism of the District Commissioner because he did not order the evacuation in time while he did evacuate his own wife and child. In his defense it may be said that he was expecting a proper vulcanological investigation that would have taken place as from Monday, 22 January. Furthermore, by calling a meeting of Village Constables for Tuesday, 23 January, he showed serious concern to keep the population informed and protected. Finally, it would have been hard for two laymen like himself and the Chief Justice to spot the difference between preliminaries of the "Vulcanian" type of explosion, similar to those of Rabaul and Tufi which they expected and the disastrous Peléan explosion that actually occurred.

751 There is no evidence that any Orokaiva people fled their villages before the eruption. This is striking because their own interpretation of the events, namely the anger of Sumbiripa, was a frightening one indeed. We shall gradually come to see that the alternative of leaving their villages was, to the Orokaiva, perhaps more frightening still.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Hongi to Agenahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they 628 might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Wasata, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

121 Under this heading there are three aspects to consider: the participants, the procedure and attitudes towards the necessity of 128 relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this 657 was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

657 intermediaries between government and people were the village constables. These were definitely not conceived by the government in the role of consultants on matters of policy. They were, however, a crucial link in the chain of command. The government was accustomed to transmit its orders directly to the village constables whose duty it then became to see that the people under their control obeyed the orders. It goes without saying that in this moment of crisis these accustomed methods of communication were followed.

731 The people who came down on the Sangara side were (judging by the ones I interviewed) no longer together in village groups. Some just said they ran to the plantation and then to Cape Killerton, others mentioned a European at the plantation who told them to go to Cape Killerton. A small band of rescue workers entered the devastated area to look for survivors. Of the casualties they carried back, an unknown number died, but 70 were evacuated to hospitals at Lae and Port Moresby. Only three of the evacuees died. (Taylor, 1958: 48.) Other casualties were treated at a field hospital in Popondetta. After the rescue workers had buried those who had died outside the area of devastation, they proceeded to Cape Killerton. The Seva people likewise went there, but a week or so later reappeared at Inonda.

To the West of the mountain, where the casualties were far lighter, the people had a number of alternate courses of action. Data from Sivepe and the Sasembata area show no uniform reaction to the disaster even though village constables continued to exercise authority and village communities were not torn asunder. The Sivepe pattern was probably not untypical.

Here the village constable was not actually in the village at the moment of the eruption. He had gone to Kendata, a village two miles closer to the mountain, to see what was wrong with the mountain. A feast was in progress there, but only the two leaders of the feast were still at Kendata. The rest had become frightened at the smoke from the mountain and escaped to the bush. While the village constable, with four companions, was at Kendata, the mountain blew up. He returned at once to his own village, entering the wrong house because it was too dark to see. When the thunder and lightning were off, he said, he saw white stuff (pumice) on the ground; the roosters started to sing; it was daybreak; the light started again. Many of the people had gone down; he took as many as possible with him to Awala. He arrived at Awala on Sunday night. (It was not Monday night, as a superficial reading of this paragraph might suggest because on that Sunday, the day broke twice, once in the morning, and once in the afternoon when visibility improved by a temporary lull in the emission of ash.)

But not everyone went to Awala; one or two, as at Kendata, had gone to the bush for safety; some old people simply refused to leave the village land and stopped at a hamlet called Kekita,

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst suffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data: people argued that the Europeans would not necessarily know what ●657 would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between the camps and the home villages. At Cape Killerton and Oro Bay, [823] the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also [753] stated in Keesing's report. My informants also ascribed sickness of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the [164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much [753] more" frequent than in any camp. It is significant, however,

[731] that the Orokaiva explained these cases not by sorcery (as they
[753] regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not
[182] resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

● 657 The government had long followed a policy of consolidating
361 hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepa many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

[731] On the other hand, there were several factors favouring such a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

either new or of far greater size than before the eruption. Some of these still exist today and still stand out by their unusual size. When one finds a village with a population of over 200, this is almost invariably (I know of no exceptions myself) a village set up near Mount Lamington after the eruption--either immediately after the eruption, such as the present Mamuni, Awala, Soroputa, Agenahambo, Koipa, or set up a few years later, when most of the restricted area near the volcano was made available for settlement, such as Hohorita, Kiorota, Bagavaturu, Kendata (see Table 2). These more recent villages are made up of people who, immediately after the closing down of the evacuation camps, were placed in resettlement villages such as Irihambo, Koipa, Agenahambo, Kongohambo and then resettled again closer to the mountain when this became possible. In all these cases, the unusually large size of the villages is due purely to government action.

The case of Sivepe, though atypical, may illustrate this. Before release from the Ilimo camp, it was arranged that the Sivepe people would be settled at Awala, which was on the main road and at a respectable distance from the mountain. The Awala people agreed to this; the Sivepe people agreed. Thus they went to Awala and the government intended that they should stay there in a large consolidated village. One of the two main clans now making up Sivepe expressed a strong desire to return home and, as Sivepe was outside the restricted area after May, 1951 (the boundary being at Kongohambo), no objection was made but the consolidation of Sivepe with another village was insisted upon. This did not bring Sivepe anywhere near the size of one of the major resettlement villages, but some measure of consolidation was achieved nonetheless. Here we see the operation of several administrative principles. First, we see the pressure towards large villages; Awala has 250 inhabitants even now; if Sivepe and other villages in the vicinity had been added to it, as had been intended, Awala would now have something like 600 inhabitants. On the other hand, Mr. Kaad, who administered this resettlement, evidently did not believe he should exert very strong pressure. He therefore allowed the settlement of Sivepe and several other villages between Sivepe and Awala. The one Sivepe clan which had stayed behind in Awala in 1951, returned to Sivepe a year later.

We may therefore distinguish two types of post-eruption settlements: (1) very large villages created with government encouragement; (2) medium-sized villages (generally still larger than pre-eruption villages) created with government connivance. What were Orokaiva attitudes to the necessity of this kind of relocation? I find this question hard to answer because the term "necessity" (employed in the questionnaire to which this report is the answer) does not fit what I understand to be Orokaiva logic. Settlements such as Irihambo, Awala, Kongohambo were certainly regarded as "necessary" for the mere reason that the government

657 (or in the case of Irihambo, the Bishop) had decreed them. Had
361 these people been Westerners rather than Orokaiva, they might have
731 asked themselves the question whether the decision of the government to prohibit the Kongohambo people, for instance, to go and live further East in their old villages was a reasonable one. However, there is nothing self-evident in the asking of such a question. Criticism of an administrative decision is, i.e., a calculation of probabilities, fiduciary responsibilities and expediencies. For the Orokaiva, the problem was not whether the government decision was a "necessary" one, but rather: what was the most advantageous action they could themselves take in the circumstances. The advantages of going back to their old village sites were obvious.
[784] But these were clearly outweighed by two grave disadvantages: first, the probability of punishment by Australian authorities and secondly, the chance (to which I shall refer in detail later) that the whole eruption might have been a punishment by the Christian God for their earlier disobedience to government and Church demands, and that further disobedience might elicit a further eruption. It seemed foolhardy indeed to challenge both the government and the mountain at the same time. In this sense, we may confidently say that the Orokaiva felt the necessity of relocation.

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relation- [578] ships and social relationships outside the village. The first of [628] them, in 1952, seems to have been precipitated by a quarrel between the Timusu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a 361 superfluity of reasons. Rimoldi was told of almost all the shifts 657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths 361 attributed to sorcery and because of quarrels between neighboring villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [954] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his [764] ghost. The population of this village shifted to nearby Hohorita, a move which was in any case favoured by the government. A reason [775] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

361 cultivating gardens that are more than a mile or so away from his village.

241 311 When Rimoldi made his careful notes of cultivated gardens, these seemed to be predominantly in the Northeastern part of the village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepa is again in that area.

731 361 Inonda experienced three shifts since the eruption: first to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).A The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 ● 657 While the layout of Pamba was traditional--with the houses close together and little space between the rows--both post-eruption settlements of Sivepa and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete which the Americans laid down during the war. Sivepa got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including Sivepa, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

[364] [345] [575] [591]

The change in village layout as between Pamba and the two later Sivepa villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing standards, village sanitation and roads. We find Wilfred Beaver, in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

657 364

A [See Cat. 116, p. End Map 7--Analyst]

Kumusi Division in which both Sivepe and Inonda are situated. It would be wrong, however, to imagine that the tidiness which will strike a modern visitor to Orokaiva villages may really be ascribed to resident magistrates and patrol officers. Col. Kenneth McKay who visited these villages in 1906 reported that he saw village grounds absolutely bare of grass, being swept so clean that a man might literally eat his dinner off it (quoted in Monckton, 1922: 131-132). The sweeping of village grounds as a feminine duty is, indeed, already a subject of Orokaiva mythology.

Beaver, in the report already cited, sets out his concept of village improvement as follows: "In the old days, doubtless, the people were careful enough not to leave food refuse about the village for fear of sorcery, but a good cleared space around the outskirts of the settlement was beyond them. There is certainly a danger that in maintaining this cleared area the people may be tempted to build their houses closer together, but I have not yet found this tendency." (1916: 49). Today, this cleared space around the outskirts is very sparing, though the privies that have become customary tend to be a few yards behind the houses and clearance extends just beyond them. There have, however, been interesting changes in housing architecture, to which I shall refer in due course. One significant change in the village "eco-system" has been the gradual elimination of the pig complex.

The Pre-contact house was invariably built with a pig enclosure so that man and pig spent the night together. The Australians lost no time in imposing the taboos of their own society; they did not object to human symbiosis with dogs; they even encouraged symbiosis with fowls but regarded symbiosis with pigs as the height of barbarism. The new house designs made no provision for them, so that they were left free to sleep under the houses, or elsewhere, as they wished. Since the Local Government Council was established in 1956, a vigorous campaign was conducted to eliminate them altogether. Thus, Inonda had no pigs in 1966, except for one which belonged to a Seva man who had left it with an Inonda man "to look after," and a very little one that had just been caught in the bush. When the new Sivepe was established in 1965, it was decided that this would be a pigless village; the remaining pigs were left in the old village. In practise, they wandered through the surrounding bush and gardens, so that it became useful to shoot them all as quickly as possible. Other villages, however, had not progressed so far in the direction of the pigless village ideal. Hohorita was indeed nearly pigless when I visited, but this was perhaps because a feast had been held there very recently.

Belshaw makes the following remarks about village development: "Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along

657 three sides of it. (Administration) attempts to introduce such
361 villages in the Higaturu sub-district had largely failed and the
standard of housing was much lower. Further, the people of this
area tended to live in small clan-hamlets and resisted propaganda
[731] for them to come together into larger village groups. After the
eruption, however, the general desire for new things, the sense of
[784] guilt at having resisted such innovations before, and a feeling of
insecurity combined to make most of the people reconsider their
earlier decisions. Although the move was not quite universal, by
far the greater proportion of people decided to rebuild their homes
in large village units situated close to existing or proposed jeep
roads, and on administrative advice decided to follow the Kokoda
village plan with substantially improved housing" (1951: 245).

At the time of Belshaw's research the only resettled areas were those West of the Waseta-Sairope line, and the villages Belshaw visited appear to have been in the Sairope area. As it turned out, the Kokoda village plan was in fact adopted in a great many villages in the Higaturu sub-district, though by no means as an immediate result of any decisions that may have been taken at Ilimo. In the Sivepa area, it seems clear that the people's first plan was to return to Pamba and only when Pamba became uncomfortable, partly through quarrels, partly through damage done by the eruption and partly through administration pressure, did they decide to build a new village in the new style. Within a radius of three miles from Sivepa, there are still a considerable number of old-style villages even today: Hamburata, Carombi, Torogota, to mention only three larger ones. Others, such as Duve and Binduta, were beginning to adopt the new style only around the time of my visit in 1966. In 1951, only those villages in which the government took a strong direct interest, such as Awala, Kongohambo, and the villages visited by Belshaw (but I could not enumerate them all) adopted the Kokoda style.

There is also a minor incompleteness in Belshaw's data when he refers to the neatly clipped grass and the rows of houses as being innovations due to the Kokoda influence. The neatly clipped grass was in evidence in 1906 and the regular rows of houses were reported by F. E. Williams (1930: 68). This was, admittedly, reported as late as the 1920's but the layout is consistent with the less explicit descriptions of Orokaiva villages given by Walker (1901) and by Monckton in his descriptions of his battles with the Dobudura and Sangara. The novelty of the Kokoda plan lies rather in the wide central field, the house design and use of materials, and the sanitation.

Undoubtedly, credit for the introduction of the plan must be given to the Ilimo experience but the spreading of the plan over the majority of Orokaiva villages must rather be ascribed to the growing influence of the Local Government Council in the 1960's.

657 Sivepa, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepa children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda
[368] children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher. After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

368 The eruption changes the centre of gravity of the district.
731 The pre-eruption settlements of Higaturu and Sangara contained all governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepa's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near
[491] Agenahambo, the Local Government Council in the new Higaturu, near Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepa to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepa people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the useholders die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepa. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepa and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepa villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepa people in Awala. It seems that the Sivepa people did stay in Awala for three months, after which the Jegase and Timmu clan groups received permission to return to their land in Sivepa. The third Sivepa clan group, Seho, stayed on in Awala, but planted gardens in the Sivepa area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepa. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. Now this danger did not come from the other Sivepa clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
● [657] imagined that Sivepa people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Nelshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

with some knowledge of anthropology. All these authors, following F. E. Williams, had the impression that Orokaiva clans are corporate groups and that the local clan groups are segments of these. Thus, Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Hununi in a later chapter.

The closely allied villages, therefore, are not only a source of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garoubi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are [631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land 423 boundaries with Soroputa and Agenahambo; these boundaries lay North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo [659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, Grombo, Binduta and Isoge, the delegation that sent to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

village. Williams, in marking out his "Waseta tribe," with Waseta at the centre, excluded the Soroputa people from this "tribe" (vide Map X), but "intra-group morality" definitely prevailed between Soroputa and neighboring Sivepa. There never were cannibalistic raids between these two villages, which included each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more closely together than formerly. I obtained from a number of Sivepa men a list of "friends" and inquired into the occasion when the friendship started; in no case did it start at Ilimo. On the other hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hohorita, which is understandable as so many refugees had lost their families during the eruption. In Sivepa I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

If "tribal" solidarity was dubious before the Ilimo camp period, (the atmosphere of an evacuation camp was certainly not a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but [illegible] can be traced to formal organisations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

The government is actively attempting to create among the Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepa and Soroputa or Agenahambo, to stay with my previous example, would have been hard to imagine. Yet it

A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sausha; Crocombe and Hogbin describe Sausha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepo, in a kinship
[574] context, by persons from another district. This was a group from Kokoda, where a Sivepo man married 40 or more years ago, and the visit was from that man's children. Several Sivepo persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garombi where they
[424] married; the third woman's son came to live in Sivepo. Descendants of the Sivepo man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

When the members of the "Waseta tribe" were accommodated at
[659] Ilimo, they were not only the guests of the government which
731 supplied food and other comforts, but also of the people of Ilimo
[574] village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the Orokaiva had no forms of organisation, in 1951, through which the refugees could have negotiated directly with Ilimo. The hosts
[659] generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepa man resident at Ilimo; thus some Sivepa people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepa or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000
[162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepa. The Sivepa people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other public questions, and develop a wider interpretation of the situation
633 of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepe, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepe, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepe men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepe and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the present at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusmale.

●657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepa came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepa; the sanitary inspector appointed by the council, who lived at Garombi, came even more frequently, while many Sivepa people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 39% had been through at least one year of formal teacher training; a smaller number had obtained a

higher certificate after a two-year course, while various teacher training programmes were involving a number of them. Furthermore, the inspector in charge of the school and, after January, 1967, also the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garoubi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garoubi, but was non-committal over the other two, as he saw Isoge and Binduta were insufficiently represented. He chewed betelnut with the people; the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages. The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Moru), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

During the same period, a good deal of agricultural extension work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

Finally, Papuan government drivers had highly significant though informal contacts with villagers. These men, highly skilled at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

657 647 177 Employed rather widely over the last decade or so, they have a responsible job, for which the qualifications include a reasonably high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European resources, namely motor transport. They very often have the power [499] to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers come from the Motu-speaking coastal district. One [799] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

Though most of the contacts between village people and the office-bearers arise out of official roles, the local priest, the assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

177 the people. He was the only white man in the district (omitting
[464] the anthropologists) who actually did this. Finally, some people of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

[875] The only taupa residents in the district were the head
[439] teacher and his wife; they had daily personal contact with village people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepa men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepa men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

●657 Characteristically, contact between the taupa and villagers
177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to

[242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

657 closing up old isolated hamlets and moving the inhabitants to the
177 larger, more modern-looking villages. The patrol officer's speech to the assembled people was intended to encourage increased cash-cropping activity. The patrol officer was young and not very well informed; some of the suggestions he made (e.g., that the people should busy themselves selling produce at the Saiho and Popondetta markets) were based on unrealistic assumptions about the lucrativeness and volume of trade at these markets, and provoked no more than an indulgent smile. As the patrol officers usually are young men of limited experience, the government is wise in depending, in its efforts to arouse enthusiasm for economic development, not on these officers but on the structure of the local government councils. Thus the most crucial European role, from the viewpoint of development, becomes the advisory officer to the council through whom development ideology must flow to the villages. In 1967, the government acknowledged the unusual significance of the work of these advisory officers by setting up a special training course for them with the School of Pacific Administration at Sydney. I did not have the opportunity to see the work of these trained officers, as none had graduated by the time I left.

In all matters the ultimate initiators of contacts were the Europeans who, after all, had set up the institutions for which their roles were required. Some of these institutions depended, however, for their survival on the voluntary support of the Orokaiva. This is true not only for the schools and churches, but also for the courts which depended on information laid by councillors and private aggrieved individuals. Similarly, the agricultural officer depended on people freely coming to him to ask for rubber trees, coffee trees, etc.

In some respects, the pattern of these contacts differs today from what it was in the early period of colonialisation. While a local government councillor reports infractions of council rules to a Native Court voluntarily, this voluntary principle did not exist before the local government and could be punished for not reporting infractions of the law. Rubber and coffee were planted, not voluntarily by individuals but compulsorily, every village having the duty to plant a certain number of trees every year. It was only after the second world war that the government began systematically to seek from the Orokaiva not forced compliance but voluntary cooperation. Even today, it is not always easy to know whether contacts with Europeans are the result of choice or compulsion.

Let us take the case of two Sivepe men whose houses were not up to the standard of the rest of the village. In the end the "committee" forced them to build according to the rules. This man was motivated far more by pride in his village and desire to demonstrate his power than by fear of the government; nonetheless, he could secure compliance only by reporting the cases to the councillor and a threat to lay a complaint with the patrol officer. The ultimate sanction to which he appealed was thus a court conviction and jail sentence (no less!) imposed by Australian authority. There was also the motivation that the patrol

officer, observing the offending houses, might charge the "committee" with dereliction of duty. This could not be taken lightly as some years earlier, in the days of the village constables, a negligent constable might find himself deposed and even jailed. (How frequently this actually happened I do not know, but the fear was still there.) The situation seems essentially ambiguous: willing cooperation and compulsion are both present.

As may be expected, contacts between Orokaiva and taupa are perceived totally differently by both parties. The European has two kinds of concept foreign to the Orokaiva, namely the concept of a formal organisation by which long-term fiduciary relationships can be established on an affectively neutral basis; and the concept of welfare objectives pursued by these organisations on the basis of universalistic values. The Orokaiva had no difficulty in trusting a European to fulfill fiduciary obligations if he had a close personal relationship with him, and likewise he would expect such a European to have an interest in his welfare, but as I have shown, such closeness was extremely rare in Sivepa. It was just unthinkable, to the Orokaiva, that an official casually visiting the village was truly interested in their welfare, because the Orokaiva could not see any reason why such an official should have such an interest. Clearly, the official was thought to come in the pursuit of his own, or his organisation's advantage. The patrol officer came to punish people who did not obey the law. I was told by informants that it did not greatly matter what one said to him as long as it stopped him from punishing people. The same was true, in one way or another, for most taupa, except some of those one knew well.

All men and women of Sivepa were asked what Europeans they knew or had known; the answers to this question were especially interesting because of the omissions. None of the persons listed in this section as being in contact with Sivepa people were ever mentioned--not even the head teacher and his wife. Anthropologists who had been in the village earlier were mentioned by many men and women, past employers were mentioned if the job was in the employer's home or if both employer and employee lived on the premises (e.g., in a hospital). The other contacts were left unmentioned, not because informants were uncooperative, but because these contacts did not fall within any of their categories of social intercourse. If I had asked specifically: "Has any European ever weighed your vegetables?", predictably some vegetable-weighers would have been listed, assuming that their names were remembered.

The relationships at Ilimo camp form a striking contrast to this general picture. This was obvious at once in the interviews as the name of, for instance, Mr. Kaad, is remembered by everybody, as are also a few other names, though less widely. There was hardly an informant who had been to Ilimo and who did not report, in one context or another, the activities of Mr. Kaad. Never once was he referred to in the accounts as "the taupa" or "the officer." When I interviewed Mr. Kaad in Sydney, he likewise felt that the kind of relationships between

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two
● 65? medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

[329] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically.
[431] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus,
[423] having accepted Australian gifts, the Orokaiva were naturally anxious to find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

177 If we analyse the reasons why the Australian government would
659 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
659 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
659 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Koipa, Awala, Wasata, Kongohambo and Mamuni. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

CHAPTER VI: Government Welfare Efforts

Section 1: Relocation Plans and Their Implementation

0657 After the second world war, the Australian government became strongly oriented towards economic development of the indigenous population in its Territories. While before the war, the policy emphasis was perhaps more on the maintenance of law and order and the development of expatriate industry, it is after 1946 that we begin to find the active encouragement on a wide scale of co-operative societies, agricultural extension projects, marketing projects, rural progress societies, and later Native Local Government Councils, as well as other political and economic programmes. Even after 1946, progress was slow and in a recent survey, R. S. Parker suggested that "relative inattention to economic development up to 1960 have left a great leeway to be caught up under insistent pressures of time and external change." (1966: 189)

In 1951, shortly after the first eruption of Mount Lamington, the Hon. Paul Hasluck became Minister for Territories in the Australian Cabinet, and Sir Donald Cleland became Administrator of the Territories. One of the chief concerns of the new administration was to increase the scale, the level of technical competence and the concentration of effort in the departments concerned with indigenous development. (Parker. ibid. 195) The relocation policy in the Northern District is more easily understood if it is remembered that in 1951 a new central administration was eager to make rapid strides in economic and social development while the staff establishment and the "basic craftsmanship of the service" (Hasluck quoted in Parker, 1966) was not yet adjusted to these new objectives.

In considering Australian relocation policy, we must therefore keep in mind that there was a disparity between the more sanguine development objectives and the available resources. Furthermore, there was no real consensus in the administration on the scope that [129] should be given to the development objectives. When I interviewed persons concerned with the events of 1951, everyone told me that the establishment of the camps and the resettlement villages was principally a rescue operation, and that wider development objectives were only incidental. On the other hand, it was possible, from published [131] statements by Belshaw, 1951; Keesing, 1953; Plant n.d.; and interviews with Bishop Hand, Mr. F. Kaad and others, to piece together a quite different attitude to the disaster that must have been current in 1951 among high-level development-minded officials. According to this approach, the disaster offered a unique opportunity to try out some

657 731 ideas concerning socio-economic development. It looked in early 1951 as though the evacuees would not be able to go back to their homes for a long time. The vulcanologist had recommended a large restricted area (see Map II)[A] and was doubtful when (if ever) it would be safe again for human habitation. It looked as though thousands would have to be resettled in altogether new surroundings. Such resettlement could only occur under strict government supervision; in these villages it looked as though the government might have the opportunity to introduce a new way of life: model village layouts, cash cropping, improved land tenure, better education, health services, everything in fact that developers still aim at today, except that no plans existed for the setting up of new political institutions.

[177] To what extent were the evacuees involved in plans of this kind? Mr. Kaad often spoke to the evacuees of Ilimo about his ideas concerning development. Belshaw's evidence shows that a number of Orokaiva to whom he talked were eager to embrace a new way of life and, especially, that they were anxious to get better educational facilities. He also detects a strong motive for the Orokaiva to agree to any propositions Mr. Kaad put to them: they hoped that thus they would be allowed to leave the evacuation camp earlier than if they argued back (1951: 246). Mr. Kaad himself expressed to me the view that the evacuation camps were too stressful an environment to be propitious for the teaching of development ideas.

During the time when large-scale development was envisaged, at least three persons of authority and scholarly qualifications were asked the Territory administration for their opinions. Belshaw (1951) advocated a general broadly-based socio-economic development programme, in line with modern theory of applied anthropology, but far beyond the resources and administrative skills of the Territory at that time. Keesing (1953) recognised that the resettlement had been "remarkably effective" as a means of reducing "cultural trauma" caused by the eruption. He further commented: "Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions." Plant, an anthropologically trained administration officer, studied some of the practical consequences a wholesale resettlement policy would have. He worked out an elaborate scheme whereby groups would be resettled in villages where there were local groups with the same clan name--a procedure which the thought would be in line with traditional social organisation--but he also showed that resettlement outside the restricted area, as defined in early 1951, would probably lead to land shortages.

Shortly after these three studies were made, an unexpected event changed the situation. The vulcanologist found that the active, paroxysmal stage of volcanic activity of Mount Lamington had ceased after less than two months and hence, a large part of the restricted area could be resettled long before he had earlier been led to expect.

A [See Cat. 116, pp. End Map 2(A)-End Map 2(B)--Analyst]

657 731 In March, 1953, he was able to reduce the restricted area still further, to a circle of two miles' radius around the crater. Thus, all areas that had ever been used for the growing of taro and for village sites, became available to the Orokaiva once more. In these circumstances, it was inevitable that the fertile slopes of Mount Lamington were again occupied in much the same way as before the eruption.

As the first chapter of this report deals adequately with the planning and establishment of the evacuation camps themselves, I shall confine myself in this section to resettlement after the period in the camps. The number of places in which groups were settled between the day of the eruption and the present varies somewhat. The Sivepa people all went to Wairopi for a few weeks, then to Ilimo until end May, 1951, then to Awala, where some stayed briefly, others for a year. Since then the present families all stayed at Sivepa. On the other hand, the present population of Hohorita went to Cape Killerton (one week), Oro Bay (about ten weeks), Popondetta (a short period), Irihambo (almost five years), until they were able to reach their present site. The resettlement history of other villages close to the mountain, such as Kiorota and Bagevaturu was about equally long.

We may generally distinguish two phases of resettlement, following the evacuation camp period. The first phase, occurring around May, 1951, was the transfer of groups from the camps to a number of chosen "resettlement" villages, mostly along the main road from Wasata to Popondetta, but also on sideroads, e.g., Sairopa and Kongohambo. This is the phase when an attempt was made to set up model villages of largish size under close government supervision, following discussions at Ilimo when the people concerned had agreed to live together, and to make the innovations. It was no doubt the intention of Mr. Kaad to continue in these villages the educational effort started at Ilimo camp, and this will be discussed in subsequent sections.

The basic problem, however, was to ensure satisfactory garden lands for the resettled groups. The weakness of the locations chosen by the government was that they were mostly placed along one main road and thus within walking distance of only part of the available garden land. As Plant and Keesing foresaw, it was inevitable that the settlements would split up so as to bring people closer to their garden land. It is mainly for this reason that the Sivepa people did not stay at Awala. Furthermore, the resettlement was based on an analysis by Plant according to which a local clan group could be resettled in any village where there was a group with the same clan name. I shall give only one example of this sort of analysis, to show its effect. There are Jegase clan groups in Sivepa, Binduta, Sui (near Awala) and Isivita. Plant therefore suggested that in the resettlement of Isivita, the Jegase clan group could be shifted to Kongohambo and be given the use of land at Sivepa, Binduta or Sui. Some Isivita evacuees therefore [423] went to Kongohambo while others went to Koipa. The Jegase of Isivita were thus made to join groups which were themselves already fairly short of land and, in the case of the Jegase of Sivepa, dependent on

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
423 each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families. [426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Waseta, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended [425] as one of the new style resettlement villages. They were given some land to cultivate and stayed for several years. When the government [245] began to encourage the planting of coffee trees, the Dapari immigrants [426] planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible to plant trees on borrowed land provided the owner consents and the [422] produce from that tree will then always belong to the planter, even when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

657 731 423 245 It is a ticklish question whether this rule similarly applies to coffee trees which differ from the traditional kind of trees in two ways: first, in that they occupy the whole of a piece of land and not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 731 423 578 628 After planting their coffee at Mumuni, the Dapari people began to depend for their subsistence gardens on land they owned in their own natal district, which was an hour or so from Mumuni. All the Dapari people, except for the Jegase clan group of Dapari, went back to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.

The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
[578 group has solid land rights close to the village. Thus, the resettle-
628 ment of a group of Garombi people in Sivepe in 1966 may well be stable because these people own land within a one-mile radius from Sivepe. But the resettlement of Dapari people in Mamuni was unstable because the Dapari land was more than one mile away. In fact, the distance between Mamuni and the Dapari lands could not have been much above two miles, but this is still too far for subsistence gardeners. It is therefore clear why Sivepe people did not agree to stay at Awala after 1951: their land was between two and four miles away from Awala, and this was regarded as an excessive distance. In the light of the events at Mamuni, we would be wrong to regard this attitude as "traditional" and "opposed to modernisation;" it was a shrewd assessment of the drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to agree to resettlement in one of a number of villages which were to be developed according to modern principles. The government took pains, however, to work out the details of resettlement in consultation with local Orokaiva leaders. Nonetheless, arrangements such as the sending of the Jegase of Isivita to Kongohambo, in the hope that they would be helped by local Jegase clan groups, were not based on a realistic assessment of the possibilities. This agreement was easy to get as it was seen to be a necessary condition for leaving Ilimo camp. Resettlement plans were thus imperfectly adapted to the traditional relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
657 of their own. This process started almost at once and continued for more than five years. I have already stated that in Sivepe this phase--the withdrawal from Awala--took place in the years 1951-1952, while at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good deal later. In this second phase, the participation of the government was much less active. In Sivepe, a patrol officer made a decision as to the site of the village and the groups to be contained in it but this was only after half the people had already lived in Pamba for some time and a quarrel with neighbouring Kongohambo had broken out, and when the Sabo people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may be traced from a file of the Department of District Administration, Popondetta (12-3-2A). As already mentioned, the Isivita evacuees, numbering 1,869, were "re-established" in the resettlement villages of Kongohambo and Koipa. Soon disputes began to arise owing to the insufficiency of land--villages such as Sivepe could give only limited help in the way of lending gardening lands and marauding pigs were

621 another source of annoyance. Some village groups requested permission
●657 to move from Koipa and this was granted. A report on the file refers
731 to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Begevaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict then it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

657 This second phase of resettlement became possible because the
731 first phase was not accompanied by any renunciation of land rights,
423 or foreclosure of the possibility of return. At no time did the resettled groups give to anyone else a permission to occupy vacated
245 lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dopari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dopari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise
[928] be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepo, most men have some land of which they are indisputably the owners, but at the same time most of them also have useholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepo showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

657 731 423 245 planted coffee on his mother's brother's land. He explained to me that this mother's brother was dead and nobody except himself had any claims on the land. The second man, who had planted on his wife's land, was not so fortunate. His wife's relatives live in Sivepa and lost no time asking for the return of "their" land as soon as the coffee was harvestable. He settled for a compromise: he planted coffee on some of his other land and promised his affines they could have their land back as soon as his new trees began to bear. As far as I could discover, this was agreed to.

423 It has been argued by several students, especially Crocombe and Hogbin, that title improvement is a necessary requirement for the success of cash cropping in the Northern District. My own findings suggest that the importance of title improvement varies a good deal between villages. Where, as in Sivepa, a fair amount of land is held under an undisputed title, no great gain in productivity can be expected from the formal registration of these good titles. In other places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Mumuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Mumuni is stealing their coffee, could any judicial officer convict any person from Mumuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

657 423 The government made a fresh approach to the problems of indigenous land tenure with the passing of the Land Titles Commission Ordinance 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments. Under these provisions a Land Titles Commissioner has been appointed at Popondetta whose task it is to determine the land titles in specifically designated "adjudication areas." The Commission prepares an adjudication record showing what land in the adjudication area is native land and the ownership of each piece of that land. A native may then apply for registration in his name of any native land included in the record by agreement, but no titles can be registered in a piece of land which is less in either area of frontage than the standard prescribed for the purpose for which the land is likely to be used. In practice, this has meant that every individual holding registered by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hohorita in 1966. Hohorita is a resettlement village harbouring some 12 clans;

657 423 it has a substantial area of land but holdings are very fragmented. As this village is very interested in growing coffee, its leader suggested in 1962 that all Hohorita land should be consolidated and partitioned among the owners and titles registered. (Crocombe and Hogbin, 1963: 93) When I visited the community in 1966, an officer of the Land Titles Commission was busy measuring the ring boundaries. He found that the Hohorita people owned a total of 2,240 acres of land, enough for 112 unit holdings. I was impressed with the ease with which the people could be induced to accept the scheme in spite of its far-reaching repercussions. If the scheme was accepted, all boundaries would be redefined by the commission; people would often need to exchange their ancestral blocks with others in accordance with the map prepared by the commission. Moreover, the usual pattern of shifting cultivation would need to be carried on within the boundaries of the single 20-acre block which, in addition, would need to accomodate cash crops. The fluidity of traditional land transactions, the opportunity to revive old claims and residual and reversionary rights would be past, as the registration abolished them all, including the rights to planted trees. All this was explained but did not deter the people.

The scheme was killed in spite of its popular support, because it was soon bruited abroad that Hohorita was to be cut up. I witnessed myself that letters were written to men who had been living away from Hohorita for years and were never likely to return. These letters, written by relatives, warned the men to come to Hohorita to assert their rights. It had initially seemed that 112 holdings was quite adequate, in fact ample, for Hohorita's population, but as all the absentees came swarming to the Commission, a total of 126 men had been able to assert their rights successfully. In none of the Ordinances was residence specified as a necessary qualification for participation in a consolidation scheme; hence the Hohorita scheme had to be dropped and hopes dimmed that major schemes could ever be completed on a significant scale.

In 1967, a remedy to this problem was devised. According to this scheme, each ward of the Higaturu Local Government Council district was formed into an "adjudication area." The people were asked to determine the boundaries of their wards; as I have already described, the lower Sasembata ward did so with alacrity. The effect of this operation was that no person resident outside the ward would henceforth have rights to land inside it. Residence could easily be determined from the village census lists. These lists did not wholly represent actual residence, but a non-resident would be obliged to be present at every village census until he transferred himself to another village list. The main point was that every person can be on only one census list and thus have land rights in only one ward. The establishment of the boundaries would probably daunt any surveyor as numerous men have rights in the land of other wards, but I found that the work was swiftly done by the Orokaiva by the expedient of effecting some exchanges along the boundary line so that, for instance, Soroputa and Kongohambo

retained as much land as they had before, after the boundary was cut. They had received some Sivepe land and they had lost an approximately equal amount of their own.

Thus, the lower Sasembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect, of being misled by its own ideological bias. The enthusiasm people felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

Section 2: Economic Assistance

177 433 Subsistence: Undoubtedly, European contact had a profound influence on the subsistence economy, both through the introduction of steel tools and of the pax Australiana. The government did not, however, intervene directly in the operation of the Orokaiva subsistence economy; it was a very simple economy, but it provided, in general, adequate nutrition and housing. The first time the Orokaiva subsistence 731 economy broke down seriously in the post-contact period was immediately 657 after the eruption of Mount Lamington. The government therefore decided to offer some limited assistance towards the re-establishment of the subsistence economy in the resettlement villages built when the refugees left the evacuation camps. One requirement of the new villages was a food supply until new gardens had been made and harvested. This [241] requirement was met by the planting of a quick-growing variety of sweet potato in villages in the vicinity of Ilimo camp. The government also bought up any root crops the Orokaiva could supply and distributed these in the resettlement villages throughout 1951, as needed.

731 242 The opportunity offered by the evacuation camps was also taken to introduce a few innovations which, it was thought, would improve subsistence gardening in the resettlement villages. People were taught the cultivation of the variety of sweet potatoes mentioned above, as well as of corn, tomatoes and beans. Seeds and plants were supplied. An agricultural officer demonstrated on a large scale the growing of [412] sweet potatoes and peanuts. In order to facilitate the rapid establishment of gardens--which the government hoped would be bigger and better than the pre-eruption ones--small spades were distributed to villages. These small spades were not a familiar implement to the Orokaiva, but the agricultural officers thought they would be more efficient than the wooden implements and large shovels hitherto used in villages. These small spades cannot have taken on very well; I saw none in Sivepa or Inonda. I myself had brought a spade for the garden I established in Sivepa, but my neighbour, upon seeing it, at once supplied me with a grubber (ex-American army stock). A very brief acquaintance with the root structure of the garden weeds convinced me that a spade was indeed [227] of limited utility. Finally, in order to add to the supply of protein in the resettlement villages, the camp superintendent distributed some snorkels for catching fish.

731 134 Keesing reports there were fears in the camp that the eruption would have destroyed taro seed stock, but this fear proved unfounded. The taro plants remained perfectly healthy and the volcanic ash made the soil amazingly fertile for awhile, so that food shortages were quickly relieved.

731 657 Issue of Food: In the camps, rice, tinned meat, tobacco were distributed according to a ration scheme based on the census figures. Each village constable was issued with rations for the number of people resident in the villages under his control. These distributions were continued in

the resettlement villages as needed, but soon replaced by issues of the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.

Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

Although there is provision in the Territory for credit assistance for economic development, small growers of cash crops such as are found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

The government provides marketing assistance to New Guinea growers of coffee (mainly indigenous) by a remission of duty on raw coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total requirements from the Territory. The government does not itself purchase coffee but when the Higaturu Local Government Council was formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in commerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

The government also assists agriculture through its research activities conducted in various experimental stations in the Territory which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

654 and local field trials are being carried out on the volcanic soils
242 of the Northern District.

Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and become a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve
[879] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu
657 Council to deal with. I have already mentioned that government officers
423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.) Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

Section 3: Social Services: Health Assistance

657 Social services were provided partly by the government, partly by the council and partly by the mission. The services provided by the different organisations were so tightly interlinked and so systematically complemented one another that it will be convenient to present, in the present chapter, the overall system that was operating. This system was a product of government planning, while council and mission made specific contributions in their special areas of competence. In the next chapter, I shall look at these services again, from the viewpoint of general mission objectives.

657 In this interlocking of services, it was the government which 743 met the bulk of the expenditure, as Table 13 clearly shows. On the other hand, over Papua as a whole 60% of the hospitals were conducted by the missions and over one quarter of the aid posts. In the year 1964-1965, in the Northern District, the three administration hospitals had 3,671 admissions and 13,176 out-patients while the corresponding number for mission institutions was 3,286 admissions, 255,460 out-patients. It is therefore clear that the mission contribution to health services in the Territory is, in terms of patients treated, far greater than its budgetary contribution (2% of total expenditure on public health) would suggest. This disproportion is only slightly lessened if we consider the value of grants-in-aid and drugs supplied by the government to mission hospitals. Clearly, it costs a great deal less to treat a patient in a mission than in a government hospital.

743 The Saiho Hospital, which served all Orokaiva territory, was a sprawling settlement of a great many buildings, almost all made of [344] native materials. Only one building, as far as I remember, was in Australian style, with weatherboard walls; this contained the doctor's office, some other administrative offices, and was used for the few non-Papuan out-patients who occasionally called. The wards were all built of bush materials. Although the statistics show 2,500 admissions and 5,000 out-patients per year, there was only one physician at the hospital who at the same time functioned as superintendent and had a heavy administrative burden. He had a small expatriate administrative staff, and a few expatriate nurses. In the beginning of 1967, a second physician, a Papuan woman, joined the staff. The superintendent was also in charge of the training of aid post orderlies. Increasingly, Papuan nurses, trained in a three-year course at Port Moresby, are being used. A substantial number of hospital orderlies are employed.

758 It is not the policy of the hospital to offer ambulance services, 743 so that the village people are expected to make stretchers out of bush materials and carry in their sick. In practice, hospital and administration vehicles will frequently carry sick people to hospital and I have never actually seen the stretchers made. People would certainly know how to do it. Upon arrival, the sick person is interviewed by a hospital orderly; usually he is accompanied by a number of

A [See Cat. 116, p. 218--Analyst]

Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
that must be carefully distinguished: attitudes to individual government
servants, to the power structure and to the values represented by the
563 government. As for attitudes to individual public servants, I have
no evidence for any change in attitudes. In a subtle way every white
man with whom Orokaiva come into contact is tested according to various
criteria: fairness, courtesy, willingness to reciprocate gifts and
services, willingness to eat with the people (a rare phenomenon,
this) and above all, his behaviour in the constant battle of wits
and inner strength in which Orokaiva delight. A man such as Mr. Kaad
who was a good man by all these tests, was remembered with much affection;
others, though excellent by the criteria of the Australian public
service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
177 a rather harsh history of earlier contacts, beginning with the murderous
regime of Monckton and culminating in the 1940's in the Japanese
conquest, the Allied re-conquest and the public execution of a small
band of Orokaiva who had sided with the Japanese. The welfare
orientation of the Australian government was perhaps never massively
demonstrated before the eruption of Mount Lamington. At the present
time this welfare orientation is well understood but the Orokaiva fear
the Australian power to compel their compliance. They use what
resources they have to keep this power within limits. They have found
that it is usually fruitless to disobey Australian commands openly,
but power can often be made ineffective if orders are misunderstood
or forgotten or evaded. Furthermore, it is a general rule among
Orokaiva to withhold information systematically from the <u>tauna</u>. It
took me some months to learn that even the simplest information I
had about the Orokaiva was often unknown to Europeans, not because
they were not interested but because nobody would tell them. On a
few occasions when an official asked me a question I would say that
any of his "driver-boys" (that was how they referred to their drivers)
could answer it and the official would answer: "Nobody will tell me.
They all say they don't know." This is indeed a potent weapon against
colonial administrators.

657 It would be wrong to assume that this attitude is directed
against Europeans <u>in general</u>, because there was great variation in
177 the treatment of individuals, and also, it is not directed against
the values Australians are trying to introduce. The avoidance of
communication is largely, I think, a device in the power struggle
between the colonial government and its subjects. The Orokaiva do
what they can to avoid being dominated. In this context, the setting
[623] up of local government councils was a great step forwards. The councillors
do not meet with the same communication bar because the people know
that they can control them through the electoral machinery. Hence it

657 623 177 is the councillors who are most effective at communicating whatever they understand of European values and the Australians have been happy to reduce direct contact with the people to formal dealings in which intermediaries can definitely not be used. The Orokaiva say that it is only since the council was set up that their thinking began to change. While this is not to be believed, it would be correct to say that an ideology of change developed only through the mediation of the councillors. The humanitarian work done immediately after the eruption did not lead to ideological change because it did not set up effective mediating institutions.

575 wife, effectively shaming the husband. Today's organisations are
[593] sponsored by the government as well as the mission. The government
[626] employs a female "welfare officer," attached to the Department of
[657] District Administration at Popondetta, who is charged with the organising and supervising of what are cal'ed women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc., make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on their knowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club; built a club house in 1967 and had the use of a sewing machine. Kioreta had a club house, used not only by the women but also by the men when there were important visitors.

794 In the Sasembata district, the women's clubs became fused with
575 their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too far away to attend regularly at the mission station, several branches were formed, in places such as Kandata and Puri, while the villages within easy reach (Sasembata, Sivepa, Caroubi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepa and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepa woman. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepa at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

Section 4: Social Services

The mission contribution to health and education has been set out in the previous chapter. It is of course the mission rather than the government which has pioneered the social services in the Territory. The first contact the Orokaiva had with Western medicine and education was through the mission sisters and the teachers trained, however inadequately, by the mission. The scholarly inadequacies of the mission teachers, though regretted, had not marred the primary aim of the church which was to inculcate Christian values and introduce some acquaintance with the arts of civilisation. If before the second world war, education was not viewed by the mission as a weapon in the struggle for economic development, it must be remembered that economic development of the Papuans was not deliberately pursued as an objective by the government or any other influential group in the Territory.

At the present time, mission education poses a dilemma. The government school inspectors express their concern over the generally low academic standard of the smaller mission schools. It has now been established as a rough rule that schools, in order to receive government approval (and therefore financial assistance and examination facilities), should have a ratio of trained teachers of at least one in three. The term trained is defined, for the benefit of the mission schools, as meaning the possession of an A certificate. Over the whole of the Northern District, one in three is approximately the average.

There has been no case where the government has actually caused a school to close down. Such action would certainly greatly anger the Anglican authorities, who argue with some force that the government has no practical means to replace the educational service of the missions. It lacks trained personnel, just as much as the mission does. Moreover, it is far more expensive to conduct a government school than a mission school and the government cannot afford this extra expense. Finally the mission argues that for the Papuan, as an essentially religious person, education ought not to be divorced from religion.

Meanwhile, the government is rapidly upgrading its own standards of training. It restricts to the utmost the intake of teachers with A certificates and encourages, by means of salary and other incentives, the obtaining of B and C certificates. It is gradually widening the scale of its operations. At the same time, the government is performing a most valuable service by giving refresher courses to practising mission teachers, thus improving their knowledge and giving them a more professional attitude to their teaching tasks. I watched Sasembata teachers who went to these courses which certainly provided much stimulus. In Hohorita, the mission conducted special classes for adults who lacked a standard 6 education. These were mostly attended by mission teachers who thus became qualified to do further study toward a teacher's certificate. The mission conducted some teachers

training school which prepared students for examinations for these certificates.

Though many men with teacher's certificates and advanced medical training take up positions with the government, where salaries are far higher, there is still a considerable inflow of qualified Papuans into the mission ranks. One reason for this may perhaps be found in the sketch I gave earlier in this chapter of a typical mission station settlement. The educated man who takes up a job with the mission receives his reward, not only in the satisfaction of religious service and the approbation of the mission towards which he is usually obliged for his education, but also an assured social status in a community in which he can feel thoroughly at home and can set up the type of social relationships to which he is accustomed. A government position on the other hand tends to isolate and detribalise teachers and hospital workers and thus be less satisfying socially.

Finally, it should be stressed that the mission is responsible for the education of Papua's educational élite. Martyrs School, once built at Sangara where it was destroyed by the eruption, and now established just outside Agenehambo, prides itself on a higher academic standard than any of the other secondary schools of the Northern District. It is able to choose the most proficient of the products of the primary school system, not only in the Northern District, but in the whole of Papua. One man in Sivepa and one in Inonda had been to this school but neither had continued to the secondary forms. But the church-educated élite will dominate the Northern District for some years to come, until the graduates from the new University of Papua New Guinea will take over this status.

CHAPTER VIII: Selection of Emigrants

At the time of the eruption, the whole of the population fled from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

Recruitment to these villages was therefore non-selective and by government order. The amount of land available at the new location and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Knad that they wished to form a village together, Mr. Knad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

When self-selection of resettlement sites occurred, the following were among the reasons for choice, as is demonstrated from evidence at Sivepa and Hohorita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hohorita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepa, we witnessed the exodus from Awala, because of land problems; the exodus from Pamba, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garombi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garombi, the links are far more complex and will be discussed under the heading of "Internal Influences."

The village group was the organisational unit of settlement. No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

621
0657 Groups smaller than a village were rarely resettled because the government placed almost total reliance on village constables for leadership roles. Piecemeal removal would have left some people without the leadership of a village constable. While the people would probably have managed quite well without him, the government could not have controlled such a group. In any case, the close cohesion of Orokaiva village groups was almost the one element of stability that was left immediately after the eruption and evacuation. The simplest administrative policy was the one actually followed, namely to leave the village groups undivided.

The factual data on emigrant allocation have been given in previous chapters.

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

I have not yet referred to the deepest acculturative influence 657 that was absorbed before the time of the eruption, namely the abolition 177 of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [484] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

[731] Developments since 1951 provided increasing opportunities for gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practise, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

657 Garombi was a somewhat delapidated settlement. The government
621 and the council were said to favour its dissolution and incorporation
into Sivepe and Binduta. This project was favoured by Sivepe which
166 was keen to enlarge its size. Sivepe could see that under the modern
dispensation, the greatest favours always went to the largest villages.
167 The large villages had shops, water supplies, a club house; the coffee
truck stopped there, and so on. There was also a prize for the most
improved village; here, too, size was thought an asset. In council
elections and many other contemporary situations, size meant power.
Sivepe was therefore eager to absorb these families, hoping that more
would follow. During the year of my visit, there were several meetings
about this with Garombi people; rumours of further migration were
hopefully spread around.

161 In contrast, Inonda slightly dropped in population in the period
under consideration. There was the same rise in the number of children;
[164] there was little loss through labour migration (only one man in 1962;
as Crocombe and Hogbin report; and still only one today). The decline
[166] in the number of households was due to dissensions; the households
shifted to neighbouring Ureo and Hohota. Perhaps this decline may be
[621] explained by the strong leadership exercised by one family--socially,
economically and ritually--so that anyone who fell out with that family
more or less had to leave. In contrast, Sivepe has several strong
personalities who had to make compromises with one another. Sivepe's
post-eruption development was shaped not by one dominant figure but
by several, each making a specific kind of contribution. Certainly,
there was factionism, but there was also balance between the rivals.
In the next two chapters, I shall deal with these two kinds of
internal pressure: the character of the key personalities and of their
rivalry.

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals who seemed to play a key role in development. The study of these key individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilance when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

177 large extent to the bloodbath of these early days. It was he to whom,
● 65 above all others, the compulsive show of obedience Orokaiva make to white men can be attributed. It is therefore interesting to inquire what was the influence of Papuan culture on Monckton.

In order to show the atmosphere in which Monckton operated I shall quote a minor example (bypassing some cruder and more obvious passages of his books in which he describes shootings, floggings, tortures, etc.) where a sorcerer is brought before Monckton's court, accused of such crimes as causing a virgin of a distant tribe to produce still-born twins and causing the moon to alter its course and colour. Monckton advised the accused, so we are told, to plead "not guilty." "But I am guilty. I should not be much of a sorcerer if I could not do a little thing like that." In such cases, says Monckton (1922: 98). "The sorcerer would get a fine or a few months' imprisonment," Monckton explains that the New Guinea administration made witchcraft a crime punishable by law as a means of establishing respect for white man's law in the eyes of the Papuans.

[431] Monckton was very well aware that he was thus lending himself to a reciprocal transaction in which each side proffered the other a certain measure of prestige. The white man was most graciously given by the sorcerer a demonstration of his respect for the white man's law; in return Monckton (quite consciously, by his own admission) helped the sorcerer to "establish his reputation as a man capable of marvelous things, a man to be feared and conciliated with gifts" (ibid.: 99). On what basis, then, was the white man's law respected? It was on the principle of exchange which dominates and has always dominated Orokaiva social relations. (On this topic, see my doctoral dissertation.)

Monckton always bought his loyalties in this precise fashion. On one occasion (1934: Chapter 1) he invoked Papuan help to kill off a few troublesome marauders on the tacit understanding that the captors would be allowed to eat them. He appointed as his constabulary persons of high rank from various districts so that the Papuans would be afraid to kill the constables: their death might induce their own people to start a tribal war against the killers. In return the constables knew that their own villages would be quite safe from Monckton's bloodthirsty attentions. Furthermore, Monckton tells us that he was in the habit of making presents to his constables, paid for out of his own pocket, over and above whatever was supplied by the government. With these presents, he bought a kind of personal loyalty which was over and above that owed by the constables to their employing government. On one occasion his constabulary marched into Government House to protect Monckton while he was the guest of the governor.

Monckton admits that he made himself rather unpopular with the officials of Port Moresby. Neither the crudity of his methods nor the means by which he procured the special attachment of his praetorian guard were regarded as proper in a British officer. Some of his exploits,

657 177 such as his threat to chain some recalcitants to corpses they had refused to bury, never entered his official despatches; other exploits led to a series of inquiries and finally to his being edged out of the service.

While Monckton's methods were never practised again by senior officers in the Northern District, the tendency for the field men to become involved with Orokaiva ways of thought and thus incur the displeasure of Port Moresby has persisted. The Higaturu Council's land registration scheme, dreamed up by Popondatta public servants, is a case of that tendency. In this case land title deeds were issued which had no validity in law but which the district commissioner would protect with his strong right arm, such as Monckton would have done most efficiently. The arrangement was repudiated by higher authority in Port Moresby. Very often relationships between white employers and Orokaiva exist on two levels: an official level where wages are paid for work done and an unofficial level where the Orokaiva receives some small extra gifts and rewards his employer with some special loyalty. These "buckshees" are a regular pattern for which some allowance is made when calculating labour costs.

657 731 A second and completely different type of expatriate was Mr. Kaad, who was in charge of the Ilimo evacuation camp. He neither relied on threats of dire punishment nor on the Orokaiva system of exchange bargaining. He came to the Territory in 1942 with the Army and stayed to become a patrol officer. He was soon seconded with the [466] Department of Labour. It became his task to educate expatriate employers whose methods of treating their labour conflicted with the government's plan of improving relations between Australia and the Papuans. In particular his task was to advocate better methods of labour control than corporal punishment which had been extremely prevalent. Orokaiva informants told me that in fact corporal punishment on plantations ceased after the second world war. Mr. Kaad later became an Assistant District Officer. At the time of the eruption he had just come back from leave to move to a new post, when he was chosen for the delicate job of looking after the evacuation camp.

His task at Ilimo, as he saw it, was to help the recovery of people who "had their world shattered." He was greatly in sympathy with the new policy of promoting Papuan economic development and tried hard to make the resettlement villages he set up into foci for development. At the same time he was always flexible and ready to place the interests of recovery from shock above the interests of reorganisation. Shortly after, he was crippled in an accident. In 1967, he was teaching at the School for Pacific Administration in Sydney, training future generations of patrol officers in techniques of social and economic development which he practised before he knew them theoretically.

657 177 Most of the other expatriates who had dealings with Sivepe and Inonda moved quickly into anonymity. The roles played by a succession of government and mission servants were undoubtedly key roles, but their contact with the particular villages was too casual for their

177 individual names to become part of village history. The anthropologists
[657] who had been in the two villages, under the auspices of A.N.U., were
[125] all very well remembered by name. When we included in a questionnaire a request for the names of Europeans our informants knew well, we were given a list including all the anthropologists, by their first names, and nobody else. This was almost a standard reaction. I am not at all sure that this close acquaintance made the anthropologists into key figures in development or that they were more influential in socio-economic development than the mission and government servants who, though anonymous, may have achieved more in this direction. A.N.U. personnel have made presents of coffee hullers, both in Sivepa and Inonda; one anthropologist taught his key informant in Inonda to drive a car, as a result of which this man found a permanent job with the administration. These certainly were tangible moves in the direction of economic progress.

177 I found that among the Orokaiva, unlike the New Zealand Maori,
123 I was never asked my opinion when some community decision was to be made nor was any greater interest displayed in the views of my predecessors. I was usually told when something had been decided (and decisions almost always seemed to be reached in my absence) and naturally I always expressed pleasure at receiving the information. The pattern was different only when I myself was directly involved. On the other hand my participation in community activities was sought and much appreciated. Our behaviour was closely observed and some minor innovations in housekeeping (the making of washing lines, airing of blankets, etc.) may be due to my wife. Everybody seemed concerned that our presence should not disturb the precarious balance of power--and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as key personalities, it is because Orokaiva attach special importance on the kind of relationships that are thus established with whites. I have already mentioned some hints we received that we might be returned ancestors; even if imagination does not go so far, the daily relationship established with the anthropologists comes close to what Orokaiva would regard as tolerable and human. It is in the texture of life that grows up between the population and the anthropologist rather than specific innovations that the importance of his visit lies; perhaps without realising it, he nurtures an ideology.

875 One of the significant mediators during my time in Sivepa was
657 the head teacher of Sasembata school. His case will provide an example of the dangers of generalising about expatriates who are in fact an extremely complex group very imperfectly known. This man, aged about 28, had led a somewhat bohemian life in Australia, as a photographer, broadcaster and advertising agent. His decision to join the New Guinea mission was in part a conversion, in part a search for identity, in part a search for an assured place in the world. He married a mission teacher met in New Guinea. He found, in fact, that none of the fixed expatriate categories quite fitted him: he had absorbed, while in

875 Australia, enough of contemporary thought in literature, art and allied
659 subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 Though membership is open to persons of any ethnic group, it
666 seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election
[123] approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority.
[829] The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
754 walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

621 Naturally he was angry that his wife had been molested; his younger
68] brother who was rather fiery and quick to fight, was angrier still.
They both found themselves isolated as the kinsmen of the assaulter took the opportunity of expressing their heart-felt views about the two brothers, especially the pugnacious one who had successfully raped a young Seho woman earlier that year. Both brothers said they would go back to Binduta and the younger man actually did so. This shows that their position in Sivepe was still somewhat unstable.

657 One of the objectives Sivepe had during the year 1966-7 was
621 to win a prize for the most improved village. This prize was awarded
361 by a committee of councillors and paid out of government funds. The eagerness to align all the houses in two rows was partly due to this desire to win the prize, though this was not the only motive. In these circumstances, it was certainly evidence of esprit de corps to fit in with the village plan and the objective of winning the prize; it was also evidence of a lack of esprit de corps to ignore the village plan altogether and build houses of inferior design in places where they were extremely conspicuous. Yet this is what the immigrants from Garombi and Binduta did. Lawrence, and the others who were keen about village improvement, accepted this situation with much tolerance, though Lawrence did go up to the Garombi houses one morning to talk it over. No doubt he received assurances that something would be done; the discussion was amicable enough. Yet this instance shows that the amalgamating of villages poses organisational problems which place a burden upon everybody: upon the old residents who must be tactful and upon the new arrivals who will long continue to feel insecure.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepa and Hohorita

731 123 My subject of study obliged me, both in Sivepa and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepa, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "Iji tiri pejetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

731 [165] In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[1] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life.

[621] [361] [425] It was the people who chose the site for the village; the Bishop hoped that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

425 657 The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

trespassing there. Bishop David recalled, in my interview with him, how amazed the people were that the land was no longer theirs: "What is this business of our land being sold? Our fathers sold it; we should be able to get it back." In spite of the Bishop's protests, the people had to leave their new village. They then moved about two miles closer to the mountain and to the centre of their traditional land holdings and chose the site of Hohorita. (The Irihambo village used not only Crown land but also the land of a planter, Mr. C. E. Searle, who tells me he never objected to the presence of the village. The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which several groups set up new villages independently. Today, the population of Irihambo is dispersed over six locations: first, two large villages, one behind the other, which have now virtually fused into one and together are known as Hohorita; immediately to the side of this, a mission station, with a church built of bush materials, similar to the one at Sasembata, but not of the superior standard achieved at Irihambo; finally three smaller breakaway villages, called Sombou, Kakita and--again--Irihambo. Though Hohorita people today are not ready to admit it, they must have been very angry when they were told their Irihambo land was to be occupied by white ex-servicemen. They pulled down the beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council, Hohorita nonetheless gradually assumed the character of the other modern resettlement villages; by June, 1967, the biggest of the breakaway groups had joined the main village, which no longer looked like two separate units but had been spatially integrated; the houses were being aligned and modernised; in other more fundamental respects the Sangara people had become rather rapidly acculturated. By the criteria used in the present study, acculturation had progressed rather more rapidly than at Sivepe, though also more unevenly. In many respects, Hohorita had more difficult problems to surmount than Sivepe: the death toll had left the tribe virtually leaderless; the resettlement village was made up of the survivors of a dozen villages or more, which made it rather heterogeneous; land titles were far more confused than before the eruption; the establishment of an esprit de corps required the forgetting of deep traditional intervillage antagonisms; a deep sense of insecurity had been caused, first by the disaster and the deaths and later, probably, to some extent by the failure of settlement at Irihambo.

It was the general hypothesis of this comparative study of ten displaced communities in the Pacific that displacement would lead to accelerated culture change in some directions. This hypothesis was tested by using, in each case, a control community, similar to the relocated community but lacking the experience of relocation. In the case analysed in the present report, the experience of displacement at Sivepe was comparatively mild in that the people soon returned to their traditional land holdings and formed a village identical in personnel

A[See Cat. 116, p. End Map 12--Analyst]

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [199] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised war did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hohorita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [659] district to amalgamate villages. A number of the people now living in Hohorita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hohorita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Besupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Soubou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Soubou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hohorita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since 628 the eruption form a rather tight cluster, quite different from the intersecting circle pattern I described for the Sasembata district. When a person in Soubou died, the whole of Hohorita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hohorita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hohorita while Soubou, with the assistance of Kakita, entertained the Uhuru'undi

TABLE 12

REVISED ESTIMATES OF HIGATURU LOCAL GOVERNMENT COUNCIL FOR JULY 1966--JUNE 1967 (ABRIDGED)

Revenues		Expenditure	
Tax: 2000 males	$16,000	A. Personal Emolument	
1000 females	1,000	Council President	$ 156
Truck hire	13,000	Council Vice-President	108
Aid Post Orderlies Subsidy	1,250	Councillors	1,560
Water Supply Subsidy	3,320	Exec., Fin. Ctee	108
Aid Post Subsidy	240	Council Clerk	1,170
Adult Education Subsidy	780	Messenger	390
Miscellaneous	2,900	Landrover Driver	500
TOTAL	$38,490	Truck Drivers	1,450
		Agric. Fieldworker	234
		Market Manager	260
		Aid Post Orderlies	2,500
		Health Worker	256
		TOTAL	$ 8,692
		B. Revenue Expenditure	
		Council Administration	$ 1,000
		Transport	5,000
		Drugs	720
		Adult Education	780
		Other Items	1,685
		TOTAL	$ 9,186
		C. Capital Expenditure	
		Drivers' houses (2)	$ 2,200
		Council Staff House	800
		Council House Furniture	500
		Market Building	1,500
		Staff, House, Health Personnel	800
		Water Supplies (16 villages)	6,565
		Clinics (3 Villages)	900
		Roading (3 Projects)	6,070
		Other Items	2,099
		TOTAL	$21,434
		GRAND TOTAL	$39,212

465
657
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651

23: Keesing E-5 (1951) 1952
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The Papuan Orokaiva Vs Mt. Lamington: Cultural Shock and Its Aftermath

Felix M. Keesing

What happens when people are subjected to unexpected catastrophic shock, dislocating their whole round of life and making a sudden break in cultural continuity? This occurred to some 9,000 Orokaiva in northern Papua when Mt. Lamington erupted on January 21, 1951. Some 4,000 Orokaiva and all of the approximately 50 whites at the Government and Mission stations in the main blast zone were killed. The survivors were forced to flee from ash-choked homes and gardens.

At the request of the Administrator of Papua and New Guinea, the writer and his wife visited this area some weeks after the main eruption and shortly after a second major blast. The purpose of the visit was to make a brief survey of the relief and rehabilitation operations set in motion by the Australian authorities and to give any advice possible. This area was one of the great battlegrounds of the Pacific war—the Kokoda-Buna-Oro Bay area—and since there are still a number of usable airstrips and jeeproads, it was possible to cover the emergency camps and other Government and Mission operations by plane, and then by jeep, canoe, and on foot, and to get some sense of the consequences of this catastrophe and of the problems involved.[1]

This paper does not purport to be based on profound knowledge of the situation for it will take a long while before its total dimensions can be properly assessed. Rather it is designed primarily to raise questions: some of theoretical significance, particularly regarding the responses of such people to cultural trauma of the first magnitude, and others from the "applied anthropology" aspect, relating to choices possible in official and mission policies in the wake of such a destructive experience.

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1. The actual field survey, covering approximately five days, was made in the company of Colonel Elliott Smith, District Commissioner in charge of relief operations, and included discussions with virtually all of the Government technical personnel, with representatives of the one Mission body operating in the area (the Anglican Mission), and through interpreters with some of the Orokaiva leaders. Discussions were held, too, with the Administrator, Colonel J. K. Murray, and other administrative personnel at the capital, Port Moresby, all of whom had been in an out of the devastated area from the beginning, and relevant official records were made available by them.

[p 16-A]

eruptions has subsequently continued, and reports as of December, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

An observer passing through or flying over destroyed areas was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organized to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. Those groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

By that time, too, a whole series of policy problems had arisen which both the field staffs and the Australian authorities at Canberra and Port Moresby were trying to resolve. Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

361 571 mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva 224 life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has [628] probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement co-311 operation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

157 Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva ter- [657] ritory as perhaps the best recruiting ground for its Royal [625] Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

791 The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with [761] particular realism, although it was considered ultimately as [789] the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern 794 times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel 404 and absorbing mystical agriculture context. Rumors spread 668 of "an order from the King (of England) that co-operatives 791

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time. [113]

should be formed ... (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 209-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamington slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

731 152 [823] mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

731 361 199 The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualized bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallized opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

731 657 361 199 The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organized Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wanida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission teachers started elementary vernacular schooling in the camps.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Yali cult in Madang, the Tomo Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manoren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 128-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[799] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

173 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p. 22-B]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that the European exchange partner did not have a great deal to offer the Orokaiva, because not even money was essential. Conversely, the fear of the trouble the white man might cause was not so great as one might suppose. Certainly, there were horrifying stories about what the white man might do if angered, but the Orokaiva had since learned some simple rules telling them how such anger could be most conveniently evaded.

Until World War II, the relationship between the Orokaiva and the government followed this general pattern almost entirely. The government made the regulations and the Orokaiva did the unavoidable minimum. World War II began to change the pattern of this partnership. Australian and American soldiers moved into the Northern District to drive out the Japanese. They camped in the bush, they shared their food with the Orokaiva, they accepted Orokaiva hospitality, they generously distributed what supplies they had to spare. The white soldier, unlike the civilian, lived in a style much closer to what the Orokaiva consider human. He laughed and joked in the presence of the Orokaiva; he put on no colonial pretense.

After the war, the Australian government changed its policy in the territory, suppressing corporal punishment of employees, emphasizing economic development in the villages, improving schooling, introducing local self-government on a limited scale (and later political representation in the House of Assembly), offering Papuans jobs of some responsibility, and discontinuing the type of village policing that made all reforms dependent on the enforcement of regulations. The village constables, whose job was in practice confined to reporting infractions of the regulations, were replaced by elected officials (local government councillors) who are indoctrinators rather than policemen. They harangue the people with a diffuse message covering a wide area of social and economic development. They seek to secure acceptance for new ideas, so that people will genuinely believe in the usefulness of changes they are making.

When I visited the Orokaiva in 1966–1967, I found a great deal of ideological discussion, the key concept being *iji eha* ('the new day, the new age')—a new way of life based on the economics of coffee growing and wage earning, the social amenities of improved villages, school education, Christianity, avoidance of violence, and, generally, cooperation with the mission and administration. I

I was amazed to see how closely the councillors' harangues and other speechmaking in the villages corresponded to official policies. Many of the advocated ideas were not being put into practice, but generally the transition seemed rather smooth. There were conflicts between the Orokaiva and their mentors, in some instances irreconcilable ones, but it seemed that consideration of these conflicts was being deferred because there was evidence of steady improvement, as long as coffee prices would only keep rising.

Informants, when asked when the 'new age' had started, all replied that it was after the Japanese were driven out. The eruption was never mentioned as the beginning of the 'new age'. It was after the war that the money economy became important and men began to take jobs outside the village for protracted periods. It was then that money became a necessary part of bridewealth so that, as an initiatory ritual, every young man had to have earned some. It was after the war that village improvement started seriously, as the history of individual Orokaiva villages shows.

The eruption of Mount Lamington in 1951 came a few years after these beginnings, at a time when the impact of money was not yet great, though the government and mission had had time to communicate the new order they sought to establish and to press for changes the Orokaiva were not too ready to accept. The eruption strengthened the message. On the transactional level, there was the large-scale help offered by the Europeans after the eruption. This was done in the most dramatic way possible, by planes dropping their riches in great abundance shortly after the disaster. Certainly such a massive display of concern in a moment of need did much to enhance the image of Europeans as desirable exchange partners. This display was followed by the organization of the camps and by the widespread introduction, especially at Ilimo Camp, of activities that were symbolic of the 'new age'.

Daily church services were conducted, all children were given regular schooling, adults were educated in a number of new agricultural and technical skills, good medical services were provided, and regular food and clothing distributions continued. New ideas on housing, village layouts, and women's handicrafts, lectures on how trade goods are manufactured in Australia, the presence of a strong development-oriented and numerous European staff—all these elements must have amazed the Orokaiva villager of 1951,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

construct a higher-level system which accounts for all the explanations taken together.

Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

None of these reasons would have sufficed to kill the movement had there been, in the 1950s, a strong opposition to the administration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

the enemy, but rather in the Papuan sense, where one contends with exchange partners in an inconclusive tug-of-war and the strength of the opponents is approximately equal. Victory, in other words, is the establishment of an equal rather than an unequal relationship.

Given this view of the European-Orokaiva relationship, it is difficult to distinguish between millenarian and gradualist ideologies among the Orokaiva. They are all, in a sense, millenarian, even though they advocate full collaboration with both mission and government. From the more objective view I have taken here, the three Orokaiva ideologies present at the time of the eruption all convey the same message. They are all concerned with the restoration of what the Orokaiva call 'power', which always implies some form of power balance between themselves and their colonial masters.

IDEOLOGY, POWER, AND LAND

As we have seen, all Orokaiva discourse about the eruption can be reduced to one basic theme: competition for power between Papuans and Europeans. I have not surveyed administration discourse about the eruption in the same detail, but it is safe to say that, apart from the mechanics of relief, the administration was likewise concerned with one central ideological theme, namely socioeconomic development. Our structural analysis would hardly be adequate unless we considered the relation between these two ideologies, not only in abstract terms but also in the framework of concrete events.

During the period immediately after the disaster, the administration planned to make the evacuation camps the beginning of permanent relocation under conditions where socioeconomic development throughout the region could be accelerated (Belshaw 1951; Keesing 1952; Plant 1951). While this relocation was being planned, the evacuees were adamant that they wished to go home as soon as possible (Belshaw 1951; Kaad, personal communication). That the administration gave in to the evacuees should not be regarded as a Papuan demonstration of their own power but rather as a necessary response to practical problems facing Orokaiva as swidden agriculturists lacking a secure system of individual, unencumbered landholding. The circumstances of the closing

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[15]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

administrators, accustomed to secure forms of land tenure in their own culture, could not fully share the Orokaiva anxiety about losing their land.

This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

This analysis of the 'new age' ideology indicates that it is related only loosely to social and economic development. It arises directly out of political competition between the Orokaiva, the mission, and the government. Whenever new techniques appear to the Orokaiva to serve this power struggle, their adoption is advocated. We have seen that a traumatic event such as the eruption of Mount Lamington, when it became the subject of Orokaiva philosophizing, was at once put at the service of this competitive struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

653 a council responsibility. While the rebuilding of the arterial road
[491] from Popondetta and Kokoda was an expensive (and seemingly interminable) responsibility of the government, the side roads became the council's responsibility. Similarly, the government built the major hospitals while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of
[689] $8 for men and $1 for women. This is the only personal tax directly levied among Orokaiva village people and has replaced the government head tax. Its collection was not a government but a council responsibility, although defaulters could, of course, be brought before a magistrate and sentenced to a term in a government jail. Councillors explained to the villagers that the taxes they paid went to pay for their roads, aid posts, water supplies, etc. The government hoped that villagers would be more ready to pay their taxes if they could see tangible local benefits to justify them. One effect of the system was that villagers became very interested to see that as much as possible of the tax money should be spent in their own locality. They rapidly developed a strong propensity for parish-pump politics. When I visited Sasembata district first, there was little evidence of any council projects in the Sasembata wards. People objected to paying
● [664] their taxes: they were not getting anything for them. Pressure resulted in roading improvements and plans for a comprehensive water supply for the area. Councillors who did not fight successfully for such causes were liable to miss re-election.

[461] The head tax manifestly acted as a significant economic incentive. A man who grew no coffee and earned no money could not pay his tax. Even if a man could not be bothered harvesting all his coffee, he would certainly harvest enough to pay his tax. Some men who had no coffee took plantation jobs a month or two before the tax was due. I noticed this in two cases at Inonda; most of the Sivepe men had coffee
[687] gardens and did not need to work outside. For the first time, tax defaulters in 1966 were actually jailed for two months. In one village, Kendata, there were as many as 50 defaulters who fought the police and ran into the bush; in Sivepe there were four, all without coffee gardens.

177 In spite of this tension, people generally supported the ideology
623 of the council: they wanted the "new age" and they wanted the kind of services that were supplied by the council. At the same time it was never forgotten that behind the tax-gathering councillors stood the government police, armed and ready to make arrests if the councillors were resisted or attached, as sometimes happened. Those who did not pay and tried to escape arrests were judged by the conformists to be ignorant men, unwisely looking for trouble. On the other hand, people deeply sympathised with them. People wanted the "new age," but they did not like the element of compulsion that went with it. They re-elected the councillors who compelled them because they held the Australian authorities, not the councillors, to be directly responsible.

799 his powers of black magic would be undermined by the church if he
[799] joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

[754] One of his sons, however, did leave the village to join the A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

177 This son, baptised under the name of Lawrence in 1963, is now
623 about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepa. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor
[429] will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepa to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

[665] Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepa, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepa. The third married a Semara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

623 Lawrence was comparatively well off, largely because he was a
177 good coffee producer, but also because he received bridewealth from
471 three daughters, continuing gifts from his sons in law and from the

CHAPTER VIII: Factionalism

121 In the preceding chapters I have invoked a number of principles
621 of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), acculturational categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 In Sivepe we found political membership groups (clans) which
665 showed marked differences in certain acculturational indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepe, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepe, though perhaps it was easier to challenge in Inonda, where there is a "big man" as
665 leader. Another classification, namely between male and female,
562 should also perhaps be briefly considered as, under the impact of the women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

665 the women's club there was a concern of the acculturated faction and
562 arguments about it were on factional lines. But in Sivepa, it was quite a novelty for the women to have a political cause of their own (they had to inveigle the men into building them a clubhouse) and they discussed the various ways in which they could exert pressure (refuse to sleep with them, etc.). All this was on a rather unserious level, although the secretary of the club, whose circumstances I have described, depended rather heavily on the club for a secure status in her new village. Later, when all the women were practising the kere-every night, the same tug of war re-established itself. Traditionally, married women do not dance much or at all; some husbands grumbled because the wives did not stay home in the evening, came home very late, left them with the babies, made a "lot of noise." In all this, there was a feeling that the status of women was rising--and the mission encouraged this as well as the government. More important, the women were acting as a group, under a leader, which may not have been common at an earlier time.

121 To what extent can one speak, in these villages, of factionalism? This term is used in a bewildering number of ways. Ralph Nicholas has recently tried to clarify it by five nominal propositions: according to him, factions are (1) conflict groups, (2) political groups, (3) not corporate groups. Faction members are recruited (4) by a leader and (5) on diverse principles. (1965: 27-29) Nicholas stresses that factions, in his sense of the term, lack the permanence of corporate groups, and that they may, in fact, arise in just one conflict situation, to evaporate again soon after. Alternatively, they may last for a very long time. I noticed a profound difference
665 between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including any disagreement at all between two persons of different families, familiar alignments at once reassert themselves. The lines of cleavage tend to be predictable; furthermore, a large number of people are apt
[578] to take sides along this predictable lines of division. Among the Orokaiva, each side tended to have only a small number of predictable protagonists. The rest would remain indifferent, and if the conflict became serious enough for them to participate, the alliances, at least in Sivepa, were hardly ever repeated from one occasion to the next. Factionalism in Sivepa was therefore, to a large extent, fugitive.

There were, of course, disputes that would divide the whole of a village along clan lines, or that would divide a larger body of contestants along village lines. I would tend, with Nicholas, to speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up. What Nicholas calls a "corporate group" is corporate only in respect of certain functions, even though these may be very diffuse, as in the case of kinship groups. But if conflict occurs over matters arising

665 out of acculturation, such conflict falls outside the charter of the corporation, so that I think one may still speak of a Christian and a pagan faction, even though the membership of these factions happens, for the time being, to coincide with the membership of lineages. Another problem is whether factions can exist only where there is leadership. One of the interests expressed in Dr. Barnett's list of variables is in "latent factions"--and these may exist where one side (or perhaps even both sides) have no leader. Thus, I think one can speak of factions in Inonda, even though the pagan faction had no leader; this deficiency did, however, stop factionalism in that village from becoming more manifest. Nonetheless, even though the pagans had no leadership comparable to that of the ruling family, they had their own informal ranking system and were able to formulate common opposition, e.g., against the women's club. This informal leader was an elderly woman who terrified my wife but whom I later found to be an intelligent informant. Even in Inonda, factionalism did not go nearly as deep as among the modern Maori: the feast at Inonda rallied all the families and the factions became submerged, in a cause with which everyone agreed.

Perhaps, the main reason why Orokaiva conflict groups do not qualify as "factions" by Nicholas' definition is that they are not structurally diverse. I mean by this that conflict groups tend to rally on one particular issue, but that on any other issue the personnal are bound to be different. An interesting example is furnished by [623] [666] the elections for the Local Government Council. A respectable Sivepe man entered as candidate and collected six votes. These were from his own extended family who felt bound to vote for him. The others did not support him on that occasion, but on another occasion, when he attempted to rape the wife of a clansman when drunk, he had a great number of supporters and the family who had almost suffered this grievous misfortune had hardly any supporters at all.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

434 home in the villages. By doing this, they are
431 bringing about changes in the established
167 rules of leadership in village life. Under tradi-
554 tional custom, improvement in status was associated with the ceremonial distribution of goods: the recipients were placed under obligation to repay in similar kind at some future date, or else lose status. Among the Yega, the older recipients of gifts in cash or manufactured goods find it impossible to repay such gifts. As a result there has been an increase in the prestige of young or middle-aged, educated men. An instance of this trend was the
(666) almost unanimous election, in 1964, of such
(659) a person, recently returned from paid employment, as the Yega's first councillor on the Oro Bay Local Government Council.

(P.19-B)

875 Australia, enough of contemporary thought in literature, art and allied
659 subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 Though membership is open to persons of any ethnic group, it
● 666 seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election
[123] approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority.
[829] The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

665 out of acculturation, such conflict falls outside the charter of the corporation, so that I think one may still speak of a Christian and a pagan faction, even though the membership of these factions happens, for the time being, to coincide with the membership of lineages. Another problem is whether factions can exist only where there is leadership. One of the interests expressed in Dr. Barnett's list of variables is in "latent factions"--and these may exist where one side (or perhaps even both sides) have no leader. Thus, I think one can speak of factions in Inonda, even though the pagan faction had no leader; this deficiency did, however, stop factionalism in that village from becoming more manifest. Nonetheless, even though the pagans had no leadership comparable to that of the ruling family, they had their own informal ranking system and were able to formulate common opposition, e.g., against the women's club. This informal leader was an elderly woman who terrified my wife but whom I later found to be an intelligent informant. Even in Inonda, factionalism did not go nearly as deep as among the modern Maori: the feast at Inonda rallied all the families and the factions became submerged, in a cause with which everyone agreed.

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[623]
[666]

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona,* or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic,* Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal,* 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[2]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

2. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

166 361 613 [425] [731] the Jegase people had no land on the Awala-Kendata road nearby, where they decided to build, they acquired rights to house-sites on the road on the land of the Be'ohuahije[1] in return for rights granted to some members of that clan to build on Jegase land 3 miles away at Awala No.1. The Jegase people had begun to move to the new village, now Binduta, when Mt Lamington erupted. Although they were outside the limits of the area of destruction the people were evacuated for safety.

The Seseupa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepe had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sohu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

● [682] The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timunu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohuahije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepe (d3J). This man's son is the third Berekipa household head (e2J).

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1 The Be'ohuahije formerly lived in the nearby villages of Saunhambo and Hehereta and their land adjoins Sivepe village.

2 See Genealogy, p.52. A/A

3 For relationship between namesakes (tato) see Williams 1930:96.

4 See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A, [See Category 801, p. 82--Analyst]

693 The councillor, the court and the police are only a last resort in
serious quarrels. I saw a councillor enter a dispute once, playing a
627 mediating role between disputants from two villages, but without
playing more than an advisory role. One quarrel was taken to court,
but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the
626 new Garoubi arrivals. She and the husband fought and had to be
separated as the lady had an axe; the domestic dispute soon died down
but the Garoubi woman laid a complaint for slander with the police.
Before this came to court, the wife had been roundly condemned by
almost everyone in the village; she had repented, had gone round the
village to signify her regrets, and been as contrite as her pride
could possibly allow her to be. The court let her off with a reprimand.
The episode, far from suggesting a flagging of Orokaiva traditional
social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
627 Western civilisation, have been quick to see the advantages of a
judicial system providing an impartial arbiter in disputes, to whose
decisions both parties will defer. At the moment, this western
judicial system is an additional resource of Orokaiva law, without
undermining its existing institutions.

731 that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

[158] It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. [684] Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some [861] domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

731 This general irritability was carried back into the villages, where worry was not 657 very much less than in the camps, and even the degree of daily control by European authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be [578] better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

CHAPTER X: Esprit de Corps

621 The problem of developing group consciousness in a new village,
731 created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepa in 1966, though on a much smaller scale. Sivepa, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial
[361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 In the daily presentations of food between residences, these
[431] families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange
[578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 On the other hand, the hazards were obvious when one looked
● 684 at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

621 Naturally he was angry that his wife had been molested; his younger
684 brother who was rather fiery and quick to fight, was angrier still.
They both found themselves isolated as the kinsmen of the assaulter
took the opportunity of expressing their heart-felt views about the
two brothers, especially the pugnacious one who had successfully raped
a young Seho woman earlier that year. Both brothers said they would
go back to Binduta and the younger man actually did so. This shows that
their position in Sivepe was still somewhat unstable.

659 One of the objectives Sivepe had during the year 1966-7 was
621 to win a prize for the most improved village. This prize was awarded
361 by a committee of councillors and paid out of government funds. The
eagerness to align all the houses in two rows was partly due to this
desire to win the prize, though this was not the only motive. In
these circumstances, it was certainly evidence of esprit de corps to
fit in with the village plan and the objective of winning the prize;
it was also evidence of a lack of esprit de corps to ignore the village
plan altogether and build houses of inferior design in places where
they were extremely conspicuous. Yet this is what the immigrants from
Garoubi and Binduta did. Lawrence, and the others who were keen about
village improvement, accepted this situation with much tolerance,
though Lawrence did go up to the Garoubi houses one morning to talk it
over. No doubt he received assurances that something would be done;
the discussion was amicable enough. Yet this instance shows that the
amalgamating of villages poses organisational problems which place a
burden upon everybody: upon the old residents who must be tactful
and upon the new arrivals who will long continue to feel insecure.

423 [245] [428] It is customary for a man to plant a few trees on his own land for his sister's children for their later use. Women sometimes acquire trees of their own in this way but unless a woman is the sole surviving member of the agnatic group in which are vested the rights to the land carrying economic trees which she uses, she acquires no rights to specific trees from her father. After marriage she has only limited access to her patrikin's trees whose produce she previously shared. One householder stated that he would not expect his sister to ask for produce from his [685] trees because her husband should have enough of his own. Another once lodged a formal complaint with the Department of District Administration staff against his sister's husband who had come from another village to harvest one of his trees without first seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same way as the land of the planter (see p.38).[A] Sometimes a man inherits trees from his father, usually in an area some distance from where he lives, without retaining proprietary rights to his father's land where the trees stand. The heir then needs to seek permission for access to the trees which he may have been allowed to retain by the deceased's co-resident kin who inherited the [423] land. On the other hand, an individual may receive as a gift (from a distantly related kinsman) continuous rights to trees on land which he knows will be inherited by the donor's patrilineal descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 614 On special festive occasions a localized patrilineal group has some call on the produce of the trees or even of garden produce of residents of other villages who are either closely related

A. [See Category 428, p. 38--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
development occurring over the years under consideration; it will
731 be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[A] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoge, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
village cooperation was a far less significant factor than inter-
578 village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
● [685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8—Analyst]

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

With regard to interpersonal relations, the evacuation set up
[685] a mutual distrust due to the removal of certain social controls.
[571] Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

not care to do with the mission quite so close. On this occasion the village looked more harmonious than I saw it at other times; the pagan half was fully able to join in.

The main difference in leadership--the premise of equality in Sivepe, the "big man" complex (see Sahlins, 1963, etc.) in Inonda--is probably attributable to an organisational difference between the mountain and coastal villages. In all my contacts with coastal people I have noticed the same posture of the "big man" among the persons of high rank. In the Sasembata district, however, it is not so easily tolerated if a man tries to stand above his fellows. There was a talented entrepreneur in Hamburata village, but this man was more interested in heading a cooperative than in purely private or family aggrandisement. There are, however, cooperatives on the coast also, and the case of Inonda may not be a typical one.

Section 4: Marginal Individuals

In this section the attempt at comparing the two villages broke down. This was because Inonda had as far as I know only one outstandingly marginal individual and shortly after I arrived they put him in jail. He had broken into a store with a hammer belonging to another villager; the other villager was apprehended by the police and successfully proved he had been framed.

In Sivepe, there were several marginal individuals some of whom became key personalities, I think, mainly because of our presence. Both our interpreters fell into that category. One of them was an unmarried mother and therefore already marginal. She was also extremely intelligent, knew English rather well, was the secretary of the woman's club. Her position was weakened because her father and mother were both dead; the father of her child came from her father's village; she therefore had been sent to her mother's village. Here she reached prominence in the affairs of the women's club and as our interpreter (she always translated holding or feeding the baby, but most reliably) but her position in her mother's brother's house was a delicate one and she had to leave her mother's father's house where she lived earlier. Although she was attractive, and only 22 years of age, her chances of marriage were thought extremely dim. She exploited to the full the chances of power provided by her association with us, especially in the earlier period when I understood no Orokaiva at all.

The other interpreter, also about 22, was Robert's younger brother. While Patricia, the women's club secretary, was extremely gregarious and adept at handling people, Leon, with a Standard 6 education, and the leading male expert in the English language and other school knowledge, was unusually shy. He was hardly ever seen talking spontaneously to any of the married men. He heartily disliked the interview situation and other duties that would draw him into the public. This tendency

scheme to Ioma and other areas. At Ioma "it was only when faced with the alternative of going to gaol for failure to pay tax that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

The standard penalty for failure to work was three months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

Daily work on the community coffee gardens was supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

Such was the difficulty of getting labour to carry the produce from the factory at Higaturu to the port of Sanananda (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some 1,000 cocoa trees were also planted in the pre-war period, although only the copra and coffee were worked during this time. All commercial agriculture ceased with the Japanese invasion in the second world war and was again interrupted by the eruption of Mt Lamington in 1951. The principle of compulsion was withdrawn in the same year and community enterprise largely ceased in the mid 1950s with an increasing trend towards individual plantings. The whole scheme was characterised not only by low returns to labour, delays in payment,[2] frequent disputed claims to plantings and serious problems in work organisation, but also by a definite feeling of resentment on the part of the indigenous participants.

(c) War and natural disaster

The Orokaiva view of the government was no doubt influenced by the second world war, which led to the Japanese occupation of the Northern District from July 1942 to January 1943, and by the eruption of Mt Lamington in January 1951, causing the death of over 4,000 people and the destruction of the district headquarters and staff at Higaturu.

The impact of the Japanese invasion and subsequent Allied re-advance has never been assessed but must be considered profound. All Australian administration ceased and, when resumed, was vested in the Australian New Guinea Administrative Unit (ANGAU), a military authority. Several thousand men co-opted as carriers by both Australians and Japanese worked under very arduous conditions.[3] Since the Orokaiva lay athwart the main Buna-Kokoda route which was the scene of fierce fighting, many villagers retreated into the surrounding hills where they were obliged to subsist on very limited resources because of the absence of much of the potential labour force.[4] Others sided with the Japanese or profited by the power vacuum to attack or betray Allied troops and civilians or to assert their authority over other Orokaiva. On resumption of Australian rule, twenty-two men were sentenced for such deeds by a military tribunal and publicly hanged at Sangara and Higaturu.[5]

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[1] An estimated 111,000 trees at a spacing of 10 by 10 feet.

[2] As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

[3] For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[4] A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

[5] A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

653 a council responsibility. While the rebuilding of the arterial road
[491] from Popondetta and Kokoda was an expensive (and seemingly interminable) responsibility of the government, the side roads became the council's responsibility. Similarly, the government built the major hospitals while the council looked after the village aid posts.

652 The council's revenue mainly came from taxes--a head tax of $8 for men and $1 for women. This is the only personal tax directly levied among Orokaiva village people and has replaced the government
[687] head tax. Its collection was not a government but a council responsibility, although defaulters could, of course, be brought before a magistrate and sentenced to a term in a government jail. Councillors explained to the villagers that the taxes they paid went to pay for their roads, aid posts, water supplies, etc. The government hoped that villagers would be more ready to pay their taxes if they could see tangible local benefits to justify them. One effect of the system was that villagers became very interested to see that as much as possible of the tax money should be spent in their own locality. They rapidly developed a strong propensity for parish-pump politics. When I visited Sasembata district first, there was little evidence of any council projects in the Sasembata wards. People objected to paying
[664] their taxes: they were not getting anything for them. Pressure resulted in roading improvements and plans for a comprehensive water supply for the area. Councillors who did not fight successfully for such causes were liable to miss re-election.

The head tax manifestly acted as a significant economic incentive.
[461] A man who grew no coffee and earned no money could not pay his tax. Even if a man could not be bothered harvesting all his coffee, he would certainly harvest enough to pay his tax. Some men who had no coffee took plantation jobs a month or two before the tax was due. I noticed this in two cases at Inonda; most of the Sivepe men had coffee
[667] gardens and did not need to work outside. For the first time, tax defaulters in 1966 were actually jailed for two months. In one village, Kendata, there were as many as 50 defaulters who fought the police and ran into the bush; in Sivepe there were four, all without coffee gardens.

In spite of this tension, people generally supported the ideology
[77] of the council: they wanted the "new age" and they wanted the kind
623 of services that were supplied by the council. At the same time it was never forgotten that behind the tax-gathering councillors stood the government police, armed and ready to make arrests if the councillors were resisted or attached, as sometimes happened. Those who did not pay and tried to escape arrests were judged by the conformists to be ignorant men, unwisely looking for trouble. On the other hand, people deeply sympathised with them. People wanted the "new age," but they did not like the element of compulsion that went with it. They re-elected the councillors who compelled them because they held the Australian authorities, not the councillors, to be directly responsible.

657 The Local Government Councillor presumed the Administration
423 wanted people to stay in the village. He said that he would prefer
182 to live on his block but would not move as he might be gaoled for
361 doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 The land tenure system lies at the heart of social organisation
423 and 'may actually define the social and economic status of indivi-
182 duals in an agrarian economy' like that of Papua-New Guinea (Parsons 1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
178 Blocks were cleared by kin groups in accordance with custom. Two
●[689] men mentioned that there had been an arrangement whereby if a person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A 1

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

villager it is said that the aggrieved party will place his orahu on the path leading to the land concerned as a warning to the offender. If he does not take heed the aggrieved will have recourse to sorcery or physical violence, or he may (less commonly) bring it before the assembled men of the village. If all are agreed on a course of action but the offender refuses to comply, he may be evicted. Two men of the subordinate subclan were threatened with eviction for alleged theft of produce shortly before our arrival. No further thefts occurred.

At present the only body with effective power to settle disputes is the Department of Native Affairs to which the people frequently have recourse. Just prior to our arrival one man had reported another villager for animal trespass and damage to his crops. The matter was settled by an informal payment of damages arranged in the presence of a member of the official patrol staff.

Current problems in relation to the enforcement of rights are discussed on pages 76-77.

village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

614 not legally binding.(1) In fact, however, the parties to this dis-
423 pute assume that the officer concerned does have the necessary
425 power to enforce the agreement, and thus it is effective for the
657 present, particularly as it has been reinforced by registration of
692 the land with the council. The Endehi'undi nevertheless intend
518 to re-assert their rights to this land at a later date. When they find that the existing arrangement is not binding, they may either simply revoke it or apply to the Lands Commission for reinstatement of their earlier rights.

614 Our third example concerns the Jego'undi sub-clan
423 of Inonda. Neither of the two adult members of this sub-clan
425 has planted cash crops. One of them had prepared ground for
518 planting cocoa on the site of his former food garden, but his right to do so was questioned by the Andiriha and he abandoned the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Bosin v. Havini in which it was ruled that although Regulation 59 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soape v. Westiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

the undisputed property of the Andiriha - albeit a different sub-clan. The occupying sub-clan is said to be agreeable to the shift, partly because one of the Inonda families originates from a lineage of the sub-clan at Hohota. Another alternative is to move to Ajoro, the "home" village of the Tandai'undi clan. The Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

The past history of the Inonda lands and the current problems encountered with cash crop planting there indicate that there are serious tenure problems at the sub-clan level. It appears that the definition of sub-clan or village boundaries and the rationalization of land rights in such a way that only one clan, sub-clan or village has rights in any one area would be conducive to higher productivity and less dispute. The Native Lands Commission has the power to define boundaries and rightholding groups on the application of any of the parties claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

assistance. The system of investigation followed by the Commission is very detailed, and accordingly in the period of three years since the Commissioner was posted to the district only about five disputes have been settled. Already 34 other cases are awaiting deliberation and many other disputants would take their cases to the Commission if an early decision was possible. Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

In the meantime the area is left without adequate machinery for the definition of rights and the settlement of disputes. Indigenous leaders, whether councillors, clan heads or other elders have no legal right to determine disputes, and although they are frequently able to exert social pressure to have their decisions enforced, they cannot apply any legal sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

(1) - Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higatura Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

for short periods as indentured labourers on the newly-established European plantations or on the wharves of Port Moresby or Samarai. Most men sampled the novelty for a short time but quickly returned to the village; some showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

The Yega constitute a social and political unit and regard themselves as separate and distinct from the similar groups around them, even though all speak mutually understandable dialects of the same language. Each of these groups may therefore be termed a parish. Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group. As hunting rights to these forest areas were obtained by daring individuals who ventured far into them, near the swidden areas of neighbouring groups, it is not surprising that such

[P.5-B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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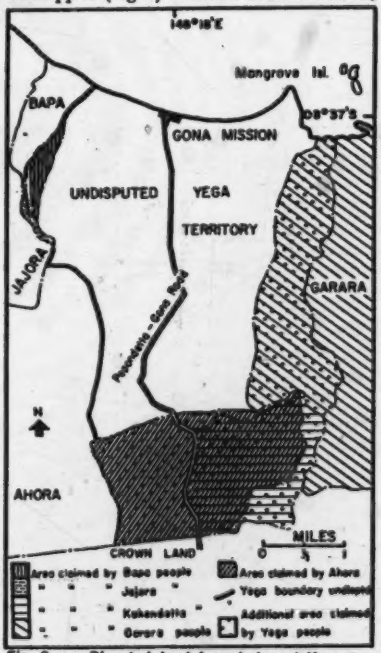

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

(P.6-A)

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a Land Titles Commissioner today has the difficult task of adjudicating the rival claims of two or more groups to the same areas of forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

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The Yega parish is composed of eight named, exogamous, localised clans most of which are divided into sub-clans and lineages; descent is patrilineal. On marriage, a girl leaves her father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan

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has a different totemic emblem which serves as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

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An abbreviated table illustrating the Yega social structure is given in Table 1. [P.6-B]

693 The councillor, the court and the police are only a last resort in
serious quarrels. I saw a councillor enter a dispute once, playing a
629 mediating role between disputants from two villages, but without
playing more than an advisory role. One quarrel was taken to court,
but this was not a case where traditional mechanisms of social control
683 had failed. A woman accused her husband of adultery with one of the
new Garoubi arrivals. She and the husband fought and had to be
626 separated as the lady had an axe; the domestic dispute soon died down
but the Garoubi woman laid a complaint for slander with the police.
Before this came to court, the wife had been roundly condemned by
almost everyone in the village; she had repented, had gone round the
village to signify her regrets, and been as contrite as her pride
could possibly allow her to be. The court let her off with a reprimand.
The episode, far from suggesting a flagging of Orokaiva traditional
social control, had demonstrated to me that it was still effective.
177 Nonetheless, the Orokaiva, as so many other peoples in contact with
627 Western civilisation, have been quick to see the advantages of a
judicial system providing an impartial arbiter in disputes, to whose
decisions both parties will defer. At the moment, this western
judicial system is an additional resource of Orokaiva law, without
undermining its existing institutions.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

435 In the Orokaiva village, exchange value may enter in four ways:
436 through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant
[434] item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

[776] We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

461 The term *pure ari* is appropriate to describe the white man's
435 labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution.
● [694] Councillor Colin brings this out by his example of the policeman
[759] who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[20] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

435 No great value was usually attached to conversion to western
436 commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

[169] The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa;*
773 *donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena.*
177 *Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa*
539 *eto i gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earora. Eto donda matu nunuga ena avo indie iruetera avo. Aruvorate, ungo kiaeklae eto God na taekena avo umbuto India. Aruvo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora."* Robert, Sivepe, 1966.

694 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puvuna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

657 scheme to Ioma and other areas. At Ioma "it was only when
245 faced with the alternative of going to gaol for failure to pay tax
466 that they were induced to work on the plantation .... In other districts the natives elected to pay their taxes in money" (P.A.R. 1925-6 : 52). The scheme survived, according to Captain Humphries (1944 : 2) who was at one stage responsible for it, "only because of the gaol that loomed in the background."

• 697 The standard penalty for failure to work was three
[687] months' imprisonment which was served by working on the government coconut plantations at Buna or Ioma, or on the government rubber plantation at Kokoda. These plantations were worked entirely by prison labour (apart from supervisory and specialist staff) and many of the older men we spoke to had served sentences for breaches of this ordinance. In fact, as Mair (1945 : 83) notes, the existence of government plantations which had no provision for paid labour acted as an incentive to prosecute for breaches of this and other laws.

245 Daily work on the community coffee gardens was
625 supervised by the village constables who were thus in a position of considerable authority. Nevertheless, this role may not have been particularly congenial for the constable was as likely as anyone to be punished for failure to keep the work up to standard. There was not a constable for each village, and the constable at Ongoho, for example, was responsible for the nine
245 Asigi villages which worked the Ongoho block.(1) The constables in turn were supervised by Papuan foremen known as "coffee bosses", each of whom was responsible for a number of
[657] communal gardens. The "coffee bosses" in turn were responsible to the European Controller of Native Plantations who was based at Higaturu.

245 Such was the difficulty of getting labour to carry the
466 produce from the factory at Higaturu to the port of Sanananda
465 (near Buna) that a special regulation was passed requiring all able-bodied men to carry produce whenever instructed to do so.(2)

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(1) For supervision of the plantation and normal police services he was paid ten shillings per year.

(2) Native Plantations (Northern Division Carrying) Regulations 1928.

628 There were ordinarily no persons who could command the
701 allegiance of the tribe as a whole, nor was there any status with authority to effect the settlement of disputes between different subgroups or their individual members. Sometimes persistent
166 intratribal conflicts led to short-term migration or to a splinter-group's secession from the tribe. However, these disturbances were very minor in comparison with the 'flight, dispersal and migration' in general resulting from incessant intertribal[1] feuds (see p.35).A

701 Kinship and local affiliation together were the basic principles by which subgroups of the raiding party seem to have been drawn up during attack and on which leaders[2] within the party based their rights to command specific combatants.

721 Retaliation was as important a motive for isoro as was indivi-
728 dual and group prestige. It was 'rare if not impossible' for tribes to settle hostilities amicably by compensation, exchange of hostages or other means (Williams 1930:166, 170 ff., 311 ff.).

721 Conquering groups operating from within their established territorial frontiers seem seldom to have set out with the express aim of acquiring new land for settlement or even to have used the vacated land when they forced their enemies to withdraw.[3] Nevertheless, the Aiga people (mostly the Timbariundi, i.e., wanderers), for instance, are known to have migrated to their present territory by expelling another tribe and settling on their land.

The high value of the land on the volcanic slopes occupied by the people called 'Periho' and 'Wasida' (by Plant and Williams,

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1 'Intertribal', 'interclan', etc., are terms which we apply to relationships between any - i.e., not necessarily all - representatives of the units in question.

2 In the course of a raid, some of these leaders would assume the role of isoro ambo jigari, a man who should rally the slowest of his company in attack and protect the stragglers during withdrawal; the other class of leader was known as isoro kiti jigari, that is, a warrior who ordinarily directs raiding groups from in front and takes the initiative in tactical decisions. Kiti jigari is sometimes a term for leaders in ordinary village activities (kiti, the first, foremost; jigari, one who directs and controls an enterprise); cf. pp.51-3. See also Williams (W.23) who was told that in pre-contact times a renowned member of Sarahu clan would lead from behind in attacks by men of the Jegasi-Sarahu villages (of the 'Wasida' tribe).

3 As the Sangara did to the Divinikovari, for instance (Williams 0.12).

A.[See Category 721, p. 35--Analyst]

621 possession of its own tracts of land' (1928:125). In view of the
614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

614 Fighting within the tribe (embore), though frequent,[1] was
578 governed by restrictive conventions absent from the conduct of deliberate raids (isoro). Organized aggression was rare and the
[721] deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

[728] In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
614 temporary 'confederacies of clans', which conducted raids upon
701 the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

634 However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

621 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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721 [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo javo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Norton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

361 The new village sites also reduced walking time to the gardens.

618 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

618 701 722 727 729 659 199 179 491 361 166 [464]

178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14-B]

each separated geographically from its neighbours.[1] There is also Williams' point (W.28) that in 1923 there was unclaimed land adjoining the 'hamlets' in the unit named Wasida (i.e., Jegasi-Sarahu). Like most other districts this consisted of two 'hamlet groups'. Horton (1962:6) says that sometimes villages, which 'are known to have been quite large' and stockaded (cf. Williams 1930:67, 164-6), were separated by tracts of unclaimed virgin land until the time of the suppression of feuding.

This combination for better defence may have been characteristic of tribes throughout the Orokaiva area. We believe, however, that the subdividing of the tribe into discrete named groups of named villages (either district or 'hamlet group') would be unique to the mountain Orokaiva in the culture area; we do not have enough evidence to show if this feature is related to the earlier clustering for safety, and to the greater population density in this tribe.

The emergence of tribal subdivisions at this level, however limited or occasional their independence, seems consistent with the uncertainties encountered by observers in seeking to determine the limits, the local name and the distinctive cultural and linguistic characteristics of the inclusive political unit.[2]

At this point we shall identify the local patrilineal groups to be mentioned in the following resumé of the history of local settlement and then make a preliminary comment on landholding by individuals.

The members of Jegase clan in Sivepe are divided among 4 named subgroups, each claiming to trace its origins to either of 2 contiguous villages occupied by all the ancestors of the Jegase in the neighbourhood. We shall call these subgroups lineages; they are Bebehupa,[3] Sesewopa, Berekipa and Arehu. A fifth lineage called Hambai or Hambai'embo has died out only in the present generation, yet all but the key members of the group and a little

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[1] Seldom does the territory of a 'district' at present clearly appear distinct from others, and that of a 'hamlet group' even more rarely.

[2] Either 'parish' or 'subtribe' could be considered as a term for such a unit within the tribe. But rather than add to the confusion of terms used in descriptions of local organization we retain the terms which we have already adopted.

[3] The suffix -pa (or -ja, female) should strictly be used in addressing or referring to an individual member, but it now seems to be common local usage to refer to a group itself in this way, and we shall follow this usage.

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and horn-bill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission school on Waususu Point in 1909. From this time until the outbreak of World War II, Yega men began leaving their villages to work

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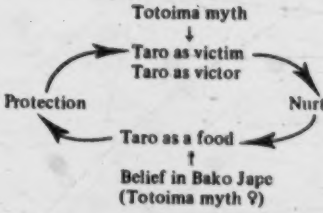
466 [P.5-A]

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5)[A] but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

4. *A Survey of Taro Gifts*

One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The evidence presented in the previous section shows that we are in fact concerned not with one exchange cycle (i.e. model 25) but with two. The second cycle represents the exchange of sanctions which preceded the feast. Though our data with regard to both the Togahou-Sivepe and the Sangara-Koipa (Isivita) wars are rather fragmentary, we do know that there were a number of raids, the last of which are still known to informants today and date back no more than 60 years. Each side is reported to have raided the other; there were killings; there was cannibalism; women were abducted. Sangara admits having abducted Isivita women but denies that any of its own women were abducted; abductions between Sivepe and Togahou can be shown to have been mutual. The last killings were too long ago for me to be sure which side had made the last raid and which side had, in the finish, a favourable tally of killings. Sivepe and Hohorita both claimed to have come out on the winning side, but I had no opportunity to check the evidence with Togahou and Isivita. If we accept the Sivepe and Hohorita versions, both these villages were in the unpleasant position of having enemies who were still seeking revenge.

Due to the restraints of the *pax Australiana*, this revenge could not take the form of an armed raid, but sorcery was still a possible form of relaliation, as the Australian authorities could not easily detect this. Both Sivepe and Hohorita might therefore justifiably fear sorcery from their old enemies, supposing they wanted to even the scores. There is no evidence, to my knowledge, that either Togahou or Koipa had such ideas in mind, but whenever misfortunes happened to Sivepe people in Togahou, or to gardens in Hohorita, the thought of sorcery used by old enemies seemed reasonable to the Orokaiva. We may represent the exchange of sanctions, prior to the feasts, in the following diagram:

MODEL 26

In order to account for pig sacrifice, we require both model 25 (showing the social exchange achieved by the feast) and model 26 (showing the circumstances which made Hohorita into an 'offender' and Koipa into an 'offended' party). In addition, we need to explain why the groups involved decided to adopt new objects of exchange in their social relationship. Until recently, the two sides exchanged enmity which they mediated by various penalties such as raids and sorcery. At the time of the feast, however, we find the same two parties exchanging expiation and forgiveness. It is possible to invoke a number of historical contingencies to explain this change. Informants liked to tell me that the change was due to the effect of the *iji eha*: the fact that everybody was baptised and moving into a new age when old enmities should be forgotten. I

A,B [See Category 574, p. 148--Analyst]

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 could not help noticing the connection between the reconciliation and the
628 simultaneous fear of sorcery to which I have already referred. But perhaps
neither historical explanation is necessary.

721 It seems clear from Williams' evidence and from the little I could reconstruct
728 in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1).[1] The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 The model applies not only to inter-village relations but to all social relations
602 in general, consanguineal and affinal relations included. Quarrels between
578 consanguines differ only in their relatively greater reluctance to resort to an
754 exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58--Analyst]

[TEXT CONTINUED ON PAGE 157]

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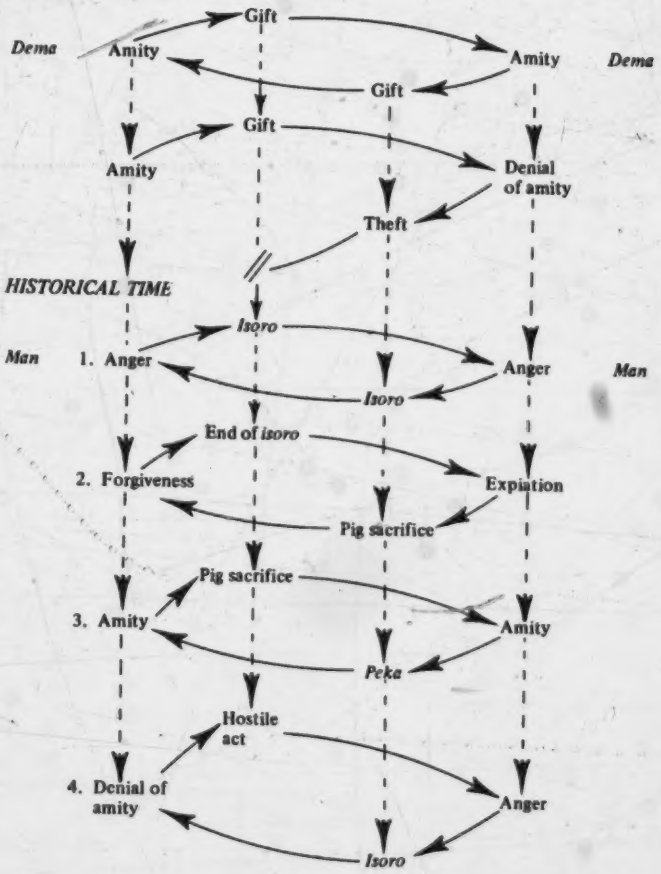
MODEL 27



743 The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe people in our sample sell vegetables there regularly but seldom buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 We could not complete this introductory sketch of local facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had seen close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting of local men for subsequent phases of the war elsewhere in the Territory. In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

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[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 This section outlines the range of wider common territorial
[614] interests and concerted political action among traditional
[619] groupings. Clans are the largest units in which membership is determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case
[266] sharply distinguished from the standard forms of hostility between
[721] tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

628 There were ordinarily no persons who could command the
701 allegiance of the tribe as a whole, nor was there any status with authority to effect the settlement of disputes between different
166 subgroups or their individual members. Sometimes persistent intratribal conflicts led to short-term migration or to a splinter-group's secession from the tribe. However, these disturbances were very minor in comparison with the 'flight, dispersal and migration' in general resulting from incessant intertribal[1] feuds (see p.35).

701 Kinship and local affiliation together were the basic principles by which subgroups of the raiding party seem to have been drawn up during attack and on which leaders[2] within the party based their rights to command specific combatants.

721 Retaliation was as important a motive for isoro as was individual and group prestige. It was 'rare if not impossible' for
728 tribes to settle hostilities amicably by compensation, exchange of hostages or other means (Williams 1930:166, 170 ff., 311 ff.).

721 Conquering groups operating from within their established territorial frontiers seem seldom to have set out with the express aim of acquiring new land for settlement or even to have used the vacated land when they forced their enemies to withdraw.[3] Nevertheless, the Aiga people (mostly the Timbariundi, i.e., wanderers), for instance, are known to have migrated to their present territory by expelling another tribe and settling on their land.

The high value of the land on the volcanic slopes occupied by the people called 'Periho' and 'Wasida' (by Plant and Williams,

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1 'Intertribal', 'interclan', etc., are terms which we apply to relationships between any - i.e., not necessarily all - representatives of the units in question.

2 In the course of a raid, some of these leaders would assume the role of isoro ambo jigari, a man who should rally the slowest of his company in attack and protect the stragglers during withdrawal; the other class of leader was known as isoro kiti jigari, that is, a warrior who ordinarily directs raiding groups from in front and takes the initiative in tactical decisions. Kiti jigari is sometimes a term for leaders in ordinary village activities (kiti, the first, foremost; jigari, one who directs and controls an enterprise); cf. pp.51-3. See also Williams (W.23) who was told that in pre-contact times a renowned member of Sarahu clan would lead from behind in attacks by men of the Jegasi-Sarahu villages (of the 'Wasida' tribe).

3 As the Sangara did to the Divinikovari, for instance (Williams O.12).

A. [See Category 721, p. 35--Analyst]

721 see p.6) and by the Sangara would have been common knowledge but the neighbouring tribes on the plains were well endowed with land. Land shortage and territorial ambitions were seldom likely to have been sufficient to induce warriors to conquer new lands from traditional enemies.[1]

628 721 Williams (1930:151) says that the Hunjovarehu (including the people of Divinikovari) and the 'Wasida' people to their south are 2 subdivisions of 1 tribe but in other contexts (1930:166) he mentions that these 2 groups carried out organized raids on each other's territory; these were frequent and were characteristic only of intertribal feuds. He refers also to the 'Wasida' as traditional enemies of the Divinikovari 'tribe' (0.9). Monckton too (Territory of Papua 1904-5:36) had reported that the 'Wasida' used frequently to raid ' the low-lying villages of the Kumusi' including the Nimanakvari (or Divinikovari) 'tribe'; indeed, the ancestors of some of the men at Sivepe were killed while fighting the Divinikovari, Togahau and Asigi people to the north. 'The people known as Hunjovarehu' and 'the people of the Periho group', according to Plant, should not be regarded as members of the same tribe (1951: Appendix 4). Informants said that their ancestors were not involved in the isoro which the Wasida villagers fought with the Orokaiva of Sairope - and at times with those at Baropi (Wairope) - and with the people of the Managalas Mountains to the south (see Reay 1953:118; Williams W.23).

Our reason for arguing that all the mountain Orokaiva - the Sangara as well as the Periho (i.e., Wasida) - constituted 1 tribe, is that the basic criterion for identifying a tribe as a distinct unit is its members' joint political activity, as Williams says (1925:406; 1930:156) - the 'almost perpetual state of war with its neighbours'.

619 721 634 In feuds with neighbouring Orokaiva of tribes to the north, members of the Awala District had regular alliances with people as distant as Koropata to the west and the Sangara to the east. However, on no occasion known to us did the mountain Orokaiva as a whole combine in defence or attack en masse. It is even unlikely that the Periho 'welded themselves into a solid group', which Plant (1951:3) claims 'was based on political necessity', defended a recognized common boundary and combined to conduct isoro as a unit.[2] At the time of pacification they alone must

[1] This is true of almost all New Guinea societies, whatever the extent of their political organization: exceptions include Chimbu and the Mae Enga (see Brown and Brookfield 1959:42).

[2] Plant's inclusion of the Wairopi and Sairopi districts in the tribe (see p.6) is hard to reconcile with statements by Williams (W.23) and by Reay (1953:118).

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634 have numbered several thousand at least (nor did they have a 'distinct dialect and a uniformity of custom' that might indicate that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his father. All members of this descent unit claim but cannot trace[1] common patrilineal descent from a usually eponymous ancestor; they do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localized group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

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[C21] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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1 This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

2 Data from Awala and Wasida villages (see Williams 0.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

3 Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

621 possession of its own tracts of land' (1928:125). In view of the
614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

Fighting within the tribe (emboge), though frequent,[1] was
614 governed by restrictive conventions absent from the conduct of
578 deliberate raids (isoro). Organized aggression was rare and the deliberate destruction and homicide characteristic of the tribal
●[721] raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

In presenting a picture of continuous feuding between local
[728] kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

614 safety. Plant for instance (1951:3) notes that the Isivita
701 villages, strategically situated on a ridge, would occasionally give refuge to fellow tribesmen though not every district would usually have recourse to join the Isivita.

619 Williams ascribes the formation of 'somewhat loose' and
[614] temporary 'confederacies of clans', which conducted raids upon
[701] the tribe's kitoho, to a local spirit. But it is not clear whether by this he means the identification of members of a tribe with one territory or the unity of the 'locality group' which usually takes in a number of 'clan-village units' (see p.34) and which he describes as a more restricted 'sympathy-group' than the tribe (1930:107, 157, 163, 309-12). When he states (1925:407) that 'over and above clan patriarchs there are recognised leaders of small clan confederacies and even - in war-time - of tribes', he seems to equate the tribe with the district among the mountain Orokaiva (in particular Wasida and Isivita; see W.23, 124).[1]

[634] However, neither the district nor any other local grouping among the mountain Orokaiva was an independent political unit. The territory of this tribe was not so compact as to call for (or even to enable) all its constituent local groups to give continuous mutual support in protecting the integrity of the area they occupied. Nevertheless members of discrete local groups continually formed ad hoc alliances across district boundaries. It is clear that the regular chains of alliances encompassed a wider area than usually described as the tribe (whether Jegasi-Sarahu, Wasida or Periho).

721 The usual stratagem of the isoro was the surprise attack on 1 or 2 selected villages. In these circumstances the victims were able to summon only immediate neighbours to help ward off the attackers and proximity was at least one of the common principles by which specific villages combined in retaliatory raids.

621 An indication that within this tribe the named local groups of
361 villages were territorially distinct units is Belshaw's statement that the population was divided into 'hamlet groups' like Awala 2,

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[721] [1] There is some doubt whether the evidence in these cases shows that there was even a military leadership in the district (and war is said to have been almost perpetual). The title of the former leader of Isivita (who had not been replaced) is given as embo javoari and the literal meaning is given (1930:104) as 'the man who gives the name' (cf. embo javo vahai, Crocombe and Hogbin 1963:17), i.e., the deceased eponymous ancestor of one clan. The last renowned war-leader among the Wasida may have been the embo peni (javo), lit. man-big (-name), of a group no larger than a village or clan (see 1925:417; W.23).

428 before establishing a household. The older brother should in time provide the other with an equitable share of the land.

There is no system of primogeniture in theory or practice.[1] In one case, however, a childless man, who was adopted into the local branch of Jegase clan and has also married a Jegase woman, either has bequeathed his land to the leader of his wife's lineage who allocated it to his second son, or he has himself bequeathed it specifically to the boy (who was given his wife's deceased brother's name). Most of the patrimonial land and some land held by the woman are to be inherited by the elder son.

241 Turning to the extent of landholding, the 12 households studied hold 138 acres near Sivepe or 2.7 acres per head, all of it arable with the exception of little more than 1 or 2 per cent.[2] Some members claim to retain land in relatively distant areas where they or their forefathers originally lived. In cases where the Sivepe people had not exercised their rights to cultivate these land claims, no estimate of their size was made.

b. The history of local settlement

177 The territory of the mountain Orokaiva was opened up when a new road from Buna to the Yodda Valley goldfields near Kokoda was built in 1904. In this part of Orokaiva country individual tribes were not as isolated as elsewhere. Although the various tribes were initially described as being constantly warring, and likely to [721] attack government parties,[3] peace was secure within 4 years. Intertribal feuds were effectively suppressed, except for an occasional raid prompted by the docility of neighbouring tribes [166] under the novel conditions brought about by the arrival of the Europeans. Many tribes, including the 'Wasida', were able to settle on their outlying lands which formerly they had not occupied for fear of raids.

[464] Many of the people worked on the construction of the road, and later as carriers; by 1909 some had signed on for labour elsewhere

[184] [1] In this way, the mountain Orokaiva differ from at least one other Orokaiva tribe, the Yega at Beporo (R. Dakeyne: personal communication).

[162] [2] This density is the equivalent of 237 persons per square mile (cf. 300-500 per square mile for Southern Chimbu, Brown and Brookfield 1959:74). The Saiho Census Division, on the other hand, has only about 75 persons per square mile; however, as Map 2 indicates, it includes extensive areas of unoccupied and generally unused rainforest surrounding the concentration of populations with higher densities and separating them from their former enemies. Some of the land of the thousands of Kombu Sangara killed in 1951 also appears to fall inside the Saiho boundaries.

[3] See Territory of Papua 1903-4:39; ibid. 1904-5:14, 36.

[TEXT CONTINUED ON PAGE 41]

613 Overall the land of Berekipa lineage is more fragmented, though less scattered than the holdings of the Bebehupa, which are larger.

From detailed accounts of completed land transfers between the Berekipa and Arehu, whose present holdings are mostly interspersed[1] near the sites of Simbehata and Pusahambo, and from other historical data we infer that this land previously formed far more continuous tracts belonging to descent groups such as these. To a noticeable extent the spatial relations between the shares of the Bebehupa, Berekipa and Arehu in the extended tract of Jegasa land marked by the sites of former settlement can be construed as a teritorial correlate of the pattern of each lineage's ancestors' migrations to or from local groups there. The shifts of residence relevant today are remembered in some detail.

e. Land use and mobility

241 Williams (1928:156) advocated a change from shifting to sedentary agriculture for the Orokaiva on the grounds that the former was wasteful of land and labour, and that the tendency to form small independent settlements resulted from the 'lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site'. He considered shifting agriculture to be 'one of the most potent causes of village and clan disintegration'.

[361] Keesing (1951:8) noted that the mountain Orokaiva had generally resisted the post-war movement to consolidate into larger villages. So long as the 'mobile economic base' persisted, he considered that resettlement into larger permanent villages after the Mt Lamington eruption would be unlikely to succeed. The Orokaiva showed no inclination to adopt more intensive sedentary cultivation and he predicted that a return to shifting agriculture would involve 'seasonal movement' outward from the environs of the settlements to new cultivation areas, and later the resumption of settlement in scattered hamlets. In view of these assertions about the connection between agricultural practice and settlement patterns, upon which Williams and Keesing based their discussion of economic development, it may be useful to examine the relations in Sivepe between mobility and village stability on the one hand, and traditional land use on the other.

62 [361] [721] Keesing suggests that the tendency, mentioned by Williams, for the Orokaiva to disperse into smaller residential units since pacification had been particularly marked on these heavily populated slopes. The suppression of intertribal feuding probably

[1] To a lesser extent they are also interspersed with parcels of other lineages' land.

62 facilitated the type of local movements that we noted occurred in
[36] the neighbourhood of Sivepe. However at times[1] the density 'on
[72] the ground' of villages of the standard size found in the other Orokaiva tribes may be misconstrued as a state of advanced fragmentation of settlement.

It should be noted that the limited amount of relevant detail on the areas where Williams worked[2] fails to indicate a significant difference in size between the Aiga village averaging 26 people at that time, and the Wasida village, with about 6 houses and a single-boys' house.

166 The Sivepe people have moved only singly or in small groups
[65] except when villages have been directed to amalgamate by the Administration. The villagers say that, except when they were evacuated to Ilimo refugee camp, they have never been forced to
[14] move from the area which had been held by their ancestors, or to rely on outside groups for access to land. Our evidence indicates that, except for limited expansion into unoccupied land early in the century, all the major shifts of residence of the sample clan branches have been confined to their own territory.

[425] People who have moved to take up rights in other land have done
[614] so by exploiting personal ties of kinship or affinity. We found no instances of overlapping land claims at the clan or local branch level such as are found in other areas of Orokaiva territory where enough land was available for whole clans to move the location of their settlement some distance to unused land of a friendly group.

621 Belshaw (1951:3) observed that in the years preceding the Mt Lamington eruption

> there was much feeling among Government officers that the relatively poor houses of the district, and the small hamlets, should give way to new villages built on the 'Kokoda' pattern, that is a line of substantial houses built around a grassy village square.

[78] The people tended to resist this change, but they had made some
[166] moves to amalgamate 'hamlets' (see p.34). He noted also that there was much movement between villages, and that it usually involved a man's leaving his father's land to live on that of his mother or his wife.

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1 For instance, when the densely populated area stretching from Isivita to Isoge and Awala villages struck the writer of one generally observant report as 'literally a mass of small hamlets' some of them with no more than 20 members.

2 See Williams 1930:7; W.1.

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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[1] Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

[2] Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

to maldistribution of land.(1)

The individual lacks security of tenure for his cash crops, but not for his food crops. In the case of the coffee blocks on Endehi'undi land a reasonable degree of security has been achieved by registration under the Higaturu Council scheme.(2) Nobody dares apply for registration for cash crop blocks on Inonda land for fear of objections by the Tandai'undi but even if these were overcome, there would probably still be inadequate security of tenure for cash crops even within the sub-clans. The size and value of blocks hardly merit the cost in time and money of precision surveying and government registration, and the present Higaturu Council registration scheme would appear to us to be well suited to the present conditions, if it was supported by the Administration and by appropriate legislation.(3)

Economic trees and other personal wealth appear to have always been held either by individuals or by small groups of siblings (though subject to specific obligations to kin). The possession of income-producing trees by individuals is thus in harmony with traditional concepts of rights to trees. In the traditional culture, however, rights to trees did not necessarily coincide with rights to the land on which they were planted, beyond the right of access and the use of such land as was

(1) Formal provisions for transfer under certain circumstances are contained in the Land (Tenure Conversion) Bill 1963. This bill has not yet been passed by the Legislative Assembly. The transfer system provided for, however, does not apply to any land until it has been dealt with by the Land Titles Commission. Unless the Commission is provided with enormous resources or delegates its routine functions to local bodies it will be unable to provide such facilities for all but a small fraction of the Territory for many years to come.

(2) The Higaturu Council scheme is explained in Appendix A[A]

(3) Official policy as expounded by the Minister for Territories (Hasluck 1960:1019-21), states that the only acceptable form of title is that issued by central government (and thus the Higaturu Council registration scheme is not acceptable). Administrative practice has not been consistent, and at some times the scheme has been given official support, while at others instructions have been issued for its discontinuance or for discouragement of expansion. Present practice is to give the scheme cautious support, but there is considerable doubt as to whether the council by-law which established the scheme is legally valid, or whether councils have the power to make by-laws on such matters. To date, the question has not been tested at law.

A [See Category 657, pp. 89-96--Analyst]

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepa where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepa men held a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepa and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepa in 1967 was an unprecendented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated [731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practices what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of [582] residence. Within this area, marriages are contracted, cannibalistic [721] raids do not occur and fights tend to involve comparatively little [266] bloodshed. The circle of "intra-group morality" varies for every

CHAPTER V: Familiarity with New Homeland

In spite of the pax Australiana, Orokaiva still view with some apprehension visits to villages of traditional enemies, if friendship has not been explicitly established between visitors and host village. In 1951, this feeling of apprehension was even stronger than today. I was told that in pre-contact times a man would be extremely rash to visit a village where he was unknown as he might well be killed. Even then, however, it was sufficient protection if a visitor was able to ask by name for a kinsman or friend resident in that village. This person would then take the visitor under his protection and he would come to no harm in the host village.

A story about a football match held in Sangara shortly before the eruption demonstrates the dangers that existed even then. A Sangara team had visited a village in the Gona district and had defeated its hosts at football. On the way back home, a member of the team fell ill and died from blood poisoning. The Sangara people attributed the death to sorcery by the defeated village. When shortly afterwards this village visited Sangara to play the return match, the Sangara came to the football field armed with hidden knives, guns and pineapple clubs, intending to kill their guests. A bloodbath was avoided only by a thunderstorm during which the match was cancelled.

In these circumstances, it is understandable that the Sangara and Isivita people were unhappy about their evacuation to camps in the coastal region after the eruption. It was not, of course, the specific instance just quoted that made them uneasy but a general apprehension of danger. Certainly, deaths and illness occurring in these camps were very liable to be ascribed to sorcery. This is no doubt one reason why the government lost no time in closing the coastal camps down and bringing the inhabitants back inland, placing them in temporary accommodation in Popondetta end April, even before permanent resettlement villages for Sangara could be planned.

The camp at Ilimo did not create the same kind of worry, as Orokaiva has no reason to fear sorcery on the part of the Ilimo people. The Sivepe people feared no harm from Ilimo because two Sivepe families had friendly and kinship relations there, while there was no history of hostility between the two places. Ilimo, furthermore, was near some European plantations where people of Sasembata district at times found employment. While the Sivepe people were in the camp, they were on visiting terms with the village people. It is important to realise that the pivot of the friendly relations between these two villages were a small number of individuals who were linked by formal bonds. Of the two bonds, one was affinal while the other was a friendship bond based on contact between a Sivepe plantation worker and Ilimo village people.

30.

When the Japanese landed at Gona Mission in July 1942, all the Yega - men, women and children - fled into the bush and made their way to Ambasi, 30 miles to the north-west. There they lived for the next two years, returning to the Gona area in 1944. By 1950 they had settled down again on their seven traditional village sites along the coast between Cape Killerton and the eastern end of Holnicote Bay. One new village was established at Surilai on Cape Killerton.

Clan membership determined the village of residence of each family in the Yega tribe. In some instances, place of residence was determined by membership of a particular sub-clan. Of the eight Yega villages, four were inhabited by male members of more than one clan. The remaining four villages were each occupied by members of only one clan and their wives and children.

After an abortive attempt at communal farming in 1947-52, the large village of Beporo was brought into existence under the direction and guidance of two educated young men who taught that a large village close to the mission church, school and hospital was the 'civilized' form of settlement. Some three quarters of the Yega people, apart from those in wage-work away from home, moved to Beporo village which was expanded to accommodate them. Although a broad pattern of clan residence could still be recognized in Beporo, the clans themselves began to lose their functional identity within the tribe. There was a weakening of traditional kinship patterns of co-operation in everyday activities.

Although their earlier communal farming venture had failed, the Yega were still very much attracted to the idea of making money from cash crops. Accordingly, with the advice of the District Agricultural Officer (D.A.O.), they cleared 15 blocks during 1957-8 and planted them with coffee trees. These blocks ranged from a quarter of an acre to two acres in area; one was planted by a group of six relatives, the remainder by individuals of various clans.

For the most part these coffee blocks were cleared in areas of secondary forest which normally formed part of the land rotation cycle for food crop production. Although they were located at distances of up to four miles from the blockholders' villages, only one man changed his place of residence as a direct result of establishing a coffee block. This man moved to Gatara, two and a half miles inland from his previous home and established a single-family homestead, a settlement quite out of keeping with traditional Yega practice. The coffee scheme failed, partly on account of low prices received for early pickings, and partly because in 1960 a much more ambitious cocoa-planting scheme, the so-called Yega Scheme, was begun. It absorbed most of the energies of the Yega during the following two or three years.

The new village sites also reduced walking time to the gardens.

The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire. There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

[P. 13-A] [TEXT CONTINUED ON PAGE 14]

Most of these capital goods enter the village by gift or gift exchange. Some types (e.g. kitchenware and clothes) may pass from one village to another by way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in a ceremonial context, but only to close kinsmen. I am not at all sure whether, in Salisbury's terminology, the latter type should be classified as a luxury or a ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that total village income has risen rapidly among the Orokaiva. The sources vary. it may be due to outside employment of persons still ordinarily resident in the village, to increased cash cropping, to sale of food surpluses or to increased remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of Orokaiva exchange, especially between tribes and between Orokaiva and Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway between the typical Papuan and the typical Melanesian'. Dupeyrat, who has recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the Papuan Mountain type', but mixed with Polyno-melanesian elements, late-comers in Papua, who spread to the Northern District via Maisina and Manigela. It is certainly true that one notices more Polyno-melanesian features along the coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of Orokaiva history that can be reconstructed is pressure from the dense population on the Mount Lamington foothills upon the sparser populations surrounding the mountain on all sides, but especially to the north and east. These sparser populations (to whom Williams gives the common name Sauaha) pressed upon the still sparser populations dwelling in the still less fertile country on their own northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930: 152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed Papua. The first administrator, Sir William McGregor, made many arduous exploratory expeditions while establishing his rule in this vast unknown territory. On one of these expeditions he ascended the Mambare river to its highest navigable point, a few miles above Tamata creek, where he discovered the existence of gold in the sand and shores of the river (Monckton 1921: 78; Murray 1912: 326–8). This was the first discovery of gold in Papua with important commercial prospects, and led to a major movement of prospectors and miners to the Northern District. Relationships with the Papuans were bad from the beginning, and there were numerous killings by both sides. In 1900 150 miners were working on the Yodda river; the Yodda and Gira goldfields together produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the bloodshed, resident magistrates were stationed at Ioma, along the Mambare and at two places on the Kumusi river, which was for some years the access route to the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

from the three books of memoirs written by Monckton, who was resident magistrate in the district until his immoderate punitive expeditions led to his being eased out of the service in 1907. His most memorable achievement was the building of a road from Buna through Orokaiva country to Kokoda, near the goldfields. This road, slightly modernised, is still the main line of communication in the Northern District today. By the time it was built (1904), the sanguinary battles between Monckton and the Dobodura and others had taken place, so government patrols were treated with much circumspection. Nonetheless the tribes around Mount Lamington were still 'fighting like Kilkenny cats' (Monckton 1922: 142). Monckton's comments on the road are interesting.

> Yodda Road is tabu to the tribes and is traversed in perfect safety by single white men and their unarmed carriers. Never since I broke the Dobudura and Sangara has there ever been a theft upon it. It is a sanctuary for any and everyone; the wildest tribes only visit it in peace to trade food and goods to passing travellers. They rather like it, as small parties of hostile tribes can move freely about on it in safety with their women and children. (1934:41)

While the road was being built 'no hostilities took place between my working parties and the local inhabitants' (*ibid.* 63). It was thus described not only by Monckton, but also by Lieutenant-Governor Murray who wrote:

> The Wasida and Sangara have been particularly active in forming markets along the road which leads from Buna Bay to the Yodda Goldfield, and in supplying carriers with taro and other food in exchange for articles of trade, such as tobacco and glass bottles, which are much prized for the manufacture of razors. (1912:105)

The Protectorate of British New Guinea became Australian territory by the passing of the Papua Act 1905 by the Commonwealth Government of Australia. The new administration adopted a policy of peaceful penetration and the Monckton type of massacres were not repeated. Nonetheless, these early excesses are now forever part of Orokaiva history. In the period that followed Papua presented 'in many ways an example of enlightened rule' (Mair 1948: Ch. III). Many measures of social and economic native development were introduced, though these invariably took the form of 'native regulations', for the breach of which a penalty was attached. The principle of coercion was applied over a remarkably wide and ever widening field.

From the days of McGregor, local control was in the hands of 'village constables, paid servants of the Crown. They were intermediaries between government and people, chosen by European officers.' From 1925 onwards, one or more 'village councillors' were appointed alongside the village constable. These were not paid servants of the Crown but were intended 'to be the representatives of native opinion'. In the Northern District I found they had generally been regarded as constables' assistants or subordinates. No indigenous officials had any judicial powers, as Murray felt such powers would lead to corruption.

In the period of Murray's rule (1907–40), the government's basic objective was to turn the Papuan into a keen and efficient indentured plantation worker. In that role, he was assiduously protected by measures which effectively

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

says that at the end of original time, warfare became an intrinsic part of social life. Two more specific messages emerge:

1. The institution created by the thief was *isoro* (intertribal warfare) which was cogently distinguished by Williams (1930: 160–6) from *embogi* (inter-clan fighting). *Isoro*, as opposed to *embogi*, takes place between groups who are geographically fairly distant, are often the speakers of different languages or dialects, and who do not usually maintain close social relations. In *isoro*, but not *embogi*, men fight to kill and eat each other. The myth therefore provides a charter for an institution by which social groups are in permanent strife with one another and permanently seek to kill and eat each other.

2. The myth states that this trife, in particular, divides the people from up-hill and down-valley. I have already pointed out that the main immediate cause of warfare around Mount Lamington was pressure of population generated on the fertile foothills, which led to groups being driven downwards, while these groups in turn drove the valley people further and further from the mountain to less desirable territory.

The social philosophy expressed in this myth is therefore based partly on the observation of ecological realities. Given a fertile centre and an increasingly infertile, but practically boundless periphery, strife is indeed endemic between social groups because the centre will continue to develop a denser population than it can support, and will always be able to muster much bigger raiding parties than the sparsely populated hinterland. It may lose battles now and then but in the long run it must be able to drive its excess population downwards. Thus the opposing forces will tend to be placed, as the myth says, up-hill and down-valley. The historical facts, as reported by Chinnery and Beaver (1916), Monckton (1921, Ch. XXIV) Williams (1930: 152–4), and Crocombe and Hogbin (1963: 14–16), all suggest that valley populations such as Aiga, Sauaha and Dobudura originally lived near the mountain and were driven off.

So far, Orokaiva social philosophy looks notably like Hobbes' view of social life as it would be in a state of nature. Between the warring groups, certainly, there appears to be no justice or injustice, but only war, and 'force and fraud are, in war, the two cardinal virtues'. How can fiduciary social relations be established at all in a world of this kind? As we know, Hobbes argued that it could be done only by the establishment of central authority, a step the Orokaiva did not take.

In order to present, as fully as possible, how the Orokaiva answered this question, I shall begin by quoting a myth told to me by Gideon of Hamburata, a village in the Sasembata district.[1] I had asked Gideon to tell me the origin of feasts, then taped the reply and translated it from Orokaiva:

> I shall tell you how feasting began.
>
> Three men, after marrying wives, set out and settled by the root of a *barivo* tree. They had twelve children. When they had enough children, they built a house and founded a village. Then, deciding to leave, they made a feast by the root of that tree.
>
> They all collected taro, made a platform, prepared all the food and got ready. Gasi, the last-born son, tied together his taro for the feast, intending

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1) 241 614

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it. [726]

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2) 245 249 657 466

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group. 245 657 466 [626] [461] [626]

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951. [249] [731]

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

Genesis of the Yega Scheme

The term Yega Scheme has been applied by the Administration to the cocoa-planting enterprise undertaken by the Yega people at Ononda, four miles inland from Gona Mission.

On several occasions prior to 1960, the Yega people discussed with the D.A.O., Mr M.H. Belfield, their desire to plant extensive areas of cocoa. Suitable land was not available near the coast, and it was not until early 1960 when an old pre-war road was reopened between Gona and Popondetta that access was provided to suitable forest country further inland.[1] In March 1960 Yega representatives advised the D.A.O. that land was now available and sought his advice and assistance in promoting cocoa production. The land available was mature rain forest situated about four miles inland, just north of Ononda Creek (see Fig.5).[A] This land was part of an area over which the Bowori clan of Yega had exercised rights until they were completely wiped out in intertribal fighting with the neighbouring Ahora people. Their land was never reallocated among the remaining Yega clans, but was used as communal hunting land to which no one Yega clan had any stronger claim than others. No complex pattern of clan rights applied in the area so there was no need for compromise among clans during the allocation of blocks.[2] Allocation of this land, whether for subsistence gardens or for cash cropping, was vested in the chief Yega land custodian, Nixon Kairembora, who fully approved of the cocoa project.

The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

Agriculture and administration officials tried to avoid some of the problems inherent in the Higaturu Council Land Registration Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that plantings be contiguous rather than in scattered plots of irregular size and shape. Contiguous planting would make all blocks

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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A. [For fig. 5 see Category 102, p.45--Analyst]

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
[726] re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
was a rational decision. An additional incen-
[484] tive was the development of the weekly market
[443] at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P 15-B]

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for
[614] new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
621 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[786] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
[628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived
361 in permanent security." "Hiving off" occurred sometimes
241 as the result of a "quarrel and the fear of retaliatory magic,"
[578] but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow
731 zone, and people may have to scatter out to live on wild
165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[799] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
591 ence. Over against this greater dispersal, the people have;

614 Pekuma (9 persons), 28.2 acres, 3.1 acres per head) Timumu
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head)
(If Jegase and Timumu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timumu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 423 Three members of these clan branches stated that they intended to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).[A] Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).[B] One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).[C] One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).[D]

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 727 425 In former times it was not uncommon for a successful warrior to bring back the son of a victim he had killed during an intertribal raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepe. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A,[See Category 428, pp. 111-117--Analyst] B,[See Category 428, p. 112--Analyst]
C, [See Category 428, pp. 112-113--Analyst] D,[See Category 597, p.60--Analyst]

361 The new village sites also reduced walking time to the gardens.

648 722 The war of 1939-1945 affected the Yega in several important ways. Their territory became one of the major battlefields of the Pacific War. Every person migrated from the area with the exception of one old crippled woman who somehow managed to survive for eighteen months in the bush. Almost all able-bodied men served in the army or labour corps and the women and children lived at another Anglican mission about thirty miles to the north. When they returned, they found all buildings, and any belongings that they had left behind, destroyed and most of their coconut palms cut down or damaged by gunfire.

648 701 722 727

727 659 199 There were some compensations. The Australian Government paid thousands of dollars in war-damage compensation for all trees and property but, more important, the stimulus of travel, and meeting and working with Australian and American soldiers, gave the younger men in particular a broader view of life which triggered off changes in their traditional economy. In addition, the transfer of the Administrative headquarters from Buna to Higaturu resulted in the construction of a major road to the port of Cape Killerton and brought the Yega into closer touch with the outside world than ever before. As a result, between 1945 and 1950, about twenty families left their re-built villages and moved east to found the new village of Surilai at Cape Killerton (Fig. 9). Men living at Surilai have since found regular employment on the Government wharf at Cape Killerton.

727 199 491 361 166 [464]

178 433 464 466 Major post-war changes in the Yega economy have resulted from their attempts to increase their cash earnings. Before the war many men worked as indentured labourers on plantations or on the wharves at Port Moresby

(P. 13-A) [TEXT CONTINUED ON PAGE 14-B]

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepa, Garoubi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepa, even only one generation beyond the present residents, we find much the
● [727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[773] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

2. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 574 345 554 demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a person occupying the office of feast leader who is charged with the ritual as well as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> other... Two or three from either side would spend a few days and nights with the opposite party, and after this the two tribes would meet in armed force on some common ground between their territories to exchange gifts of pigs and ornaments.... (1930: 166)

Williams emphasises that such *peka* were precarious and often mere stratagems for killing more enemies. Nonetheless, feasts were held at intervals, former enemies were invited to them, and when they did happen the slate of old hostilities was wiped clean. No doubt, hostilities of the same kind would often occur again once the feast was over. Nonetheless, if there was no treachery, the feast was an occasion when the estrangement existing between social groups could be overcome in a communion ritual in which primeval amity was restored.

The notion of the feast as communion ritual is most clearly stated in a series of myths, of which the most widely known is that of Totoima. Some of the most celebrated stories about Totoima – his practice of killing men and eating them while wearing pig's tusks, and of killing and eating his children as soon as they were born – are reserved for other chapters of this work. All the stories about Totoima, however, have a similar ending: by some trick (his son stealing his teeth, his son feigning death and concealing a spear, his wife or sister raising many children out of blood from a cut finger so they could murder him) Totoima was killed in revenge for his iniquities. In many of the versions, which we shall discuss in Chapter VII, Totoima is neither fully a human being nor fully a wild pig but rather an undifferentiated pig-man partaking of the nature of both.

Totoima's body was cut into the joints into which pigs (and presumably slain humans) were traditionally subdivided prior to being shared out between guests at a feast. Those who ate the joints multiplied miraculously so that their descendants peopled practically the whole of the Northern District. Usually, at a feast, the joints would be given to the heads of different nuclear or extended families. In this case, the family head who received the right fore-leg became the ancestor of all the Mambare people; the recipient of the left fore-leg became the ancestor of the Opi people; the right hind-leg became Sangara, the left hind-leg Isivita, the head became the coastal people, the back Kokoda, the belly Togahou and the 'liver' Angerita. One might say therefore that Totoima was the primal ancestor of all these warring tribes, and as Williams shows (mostly in his unpublished manuscripts) all the tribes listed here have retained some similar story.

But Totoima was a primal ancestor in a special sense. Strictly, in most of the versions, he was not the sire of the people who ate his meat. He is not, therefore, an ancestor in a genealogical sense. But it was his meat that miraculously caused these small families to multiply into tribes. Thus it was his strength, his *ivo*, entering the bodies of those who ate him, which really caused the tribes to multiply. The tribesmen became the inheritors of his *ivo* and it was from this that their power arose. Totoima was their ancestor in the sense that they had his *ivo*. We are thus led closer to the underlying pattern of Orokaiva political philosophy. As a result of the primal quarrel, the affair of the stolen lashing, social groups were separated by a permanent *isoro*. At the same time they are bound together by a primeval communion, the common eating of

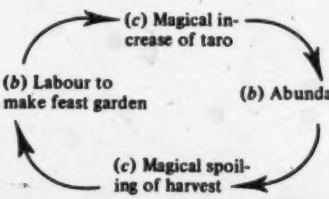
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 571 574 [243] [789] This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

574 182 [243] [789] [728] In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

574 243 In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gaga*. It will be noticed that the position of the taro on the *gaga* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

628 728 574

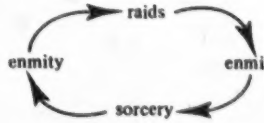
This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

The evidence presented in the previous section shows that we are in fact concerned not with one exchange cycle (i.e. model 25) but with two. The second cycle represents the exchange of sanctions which preceded the feast. Though our data with regard to both the Togahou-Sivepe and the Sangara-Koipa (Isivita) wars are rather fragmentary, we do know that there were a number of raids, the last of which are still known to informants today and date back no more than 60 years. Each side is reported to have raided the other; there were killings; there was cannibalism; women were abducted. Sangara admits having abducted Isivita women but denies that any of its own women were abducted; abductions between Sivepe and Togahou can be shown to have been mutual. The last killings were too long ago for me to be sure which side had made the last raid and which side had, in the finish, a favourable tally of killings. Sivepe and Hohorita both claimed to have come out on the winning side, but I had no opportunity to check the evidence with Togahou and Isivita. If we accept the Sivepe and Hohorita versions, both these villages were in the unpleasant position of having enemies who were still seeking revenge.

Due to the restraints of the *pax Australiana*, this revenge could not take the form of an armed raid, but sorcery was still a possible form of relaliation, as the Australian authorities could not easily detect this. Both Sivepe and Hohorita might therefore justifiably fear sorcery from their old enemies, supposing they wanted to even the scores. There is no evidence, to my knowledge, that either Togahou or Koipa had such ideas in mind, but whenever misfortunes happened to Sivepe people in Togahou, or to gardens in Hohorita, the thought of sorcery used by old enemies seemed reasonable to the Orokaiva. We may represent the exchange of sanctions, prior to the feasts, in the following diagram:

MODEL 26



In order to account for pig sacrifice, we require both model 25 (showing the social exchange achieved by the feast) and model 26 (showing the circumstances which made Hohorita into an 'offender' and Koipa into an 'offended' party). In addition, we need to explain why the groups involved decided to adopt new objects of exchange in their social relationship. Until recently, the two sides exchanged enmity which they mediated by various penalties such as raids and sorcery. At the time of the feast, however, we find the same two parties exchanging expiation and forgiveness. It is possible to invoke a number of historical contingencies to explain this change. Informants liked to tell me that the change was due to the effect of the *iji eha*: the fact that everybody was baptised and moving into a new age when old enmities should be forgotten. I

A,B [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 could not help noticing the connection between the reconciliation and the
628 simultaneous fear of sorcery to which I have already referred. But perhaps
721 neither historical explanation is necessary.
728 It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1). The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 The model applies not only to inter-village relations but to all social relations
602 in general, consanguineal and affinal relations included. Quarrels between
578 consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone
754 too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58--Analyst]

[TEXT CONTINUED ON PAGE 158]

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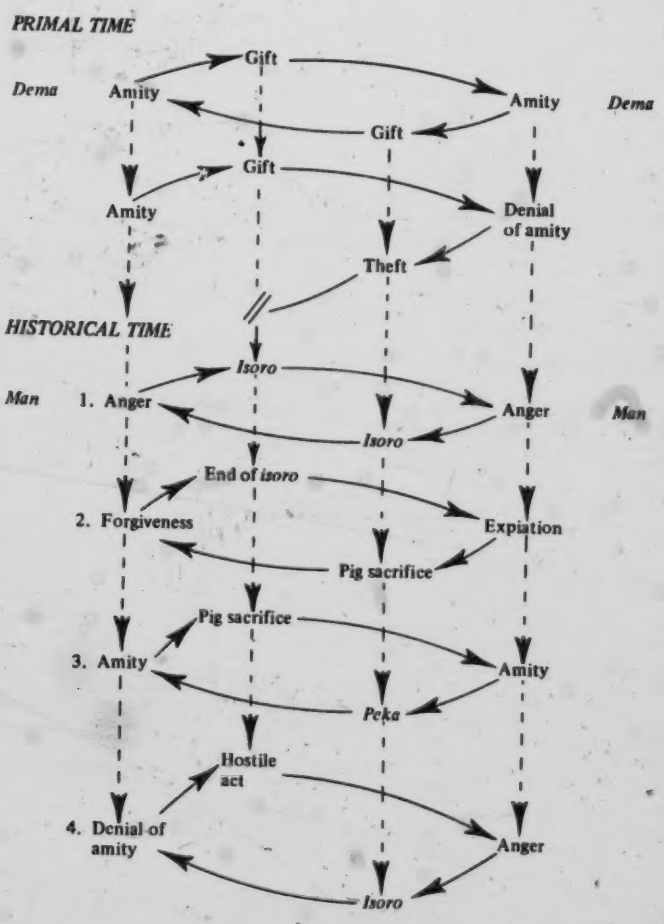
MODEL 27



628 There were ordinarily no persons who could command the
701 allegiance of the tribe as a whole, nor was there any status with
authority to effect the settlement of disputes between different
166 subgroups or their individual members. Sometimes persistent
intratribal conflicts led to short-term migration or to a splinter-
group's secession from the tribe. However, these disturbances
were very minor in comparison with the 'flight, dispersal and
migration' in general resulting from incessant intertribal[1] feuds
(see p.35).

701 Kinship and local affiliation together were the basic principles
by which subgroups of the raiding party seem to have been drawn up
during attack and on which leaders[2] within the party based their
rights to command specific combatants.

721 Retaliation was as important a motive for isoro as was indivi-
dual and group prestige. It was 'rare if not impossible' for
729 tribes to settle hostilities amicably by compensation, exchange
of hostages or other means (Williams 1930:166, 170 ff., 311 ff.).

721 Conquering groups operating from within their established
territorial frontiers seem seldom to have set out with the express
aim of acquiring new land for settlement or even to have used the
vacated land when they forced their enemies to withdraw.[3] Never-
theless, the Aiga people (mostly the Timbariundi, i.e., vanderers),
for instance, are known to have migrated to their present territory
by expelling another tribe and settling on their land.

The high value of the land on the volcanic slopes occupied by
the people called 'Periho' and 'Wasida' (by Plant and Williams,

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[1] 'Intertribal', 'interclan', etc., are terms which we apply to relationships between any - i.e., not necessarily all - representatives of the units in question.

[2] In the course of a raid, some of these leaders would assume the role of isoro ambo jigari, a man who should rally the slowest of his company in attack and protect the stragglers during withdrawal; the other class of leader was known as isoro kiti jigari, that is, a warrior who ordinarily directs raiding groups from in front and takes the initiative in tactical decisions. Kiti jigari is sometimes a term for leaders in ordinary village activities (kiti, the first, foremost; jigari, one who directs and controls an enterprise); cf. pp.51-3. See also Williams (W.23) who was told that in pre-contact times a renowned member of Sarahu clan would lead from behind in attacks by men of the Jegasi-Sarahu villages (of the 'Wasida' tribe).

[3] As the Sangara did to the Divinikovari, for instance (Williams O.12).

A. [See Category 721, p. 35--Analyst]

621 possession of its own tracts of land' (1928:125). In view of the
614 uncertainties regarding attributes which, we have noted, Williams associates with the 'clan', we can not readily say whether our discussion in the following sections confirms or contradicts this statement on land tenure.

614 Fighting within the tribe (emboge), though frequent,[1] was
578 governed by restrictive conventions absent from the conduct of deliberate raids (isoro). Organized aggression was rare and the
[721] deliberate destruction and homicide characteristic of the tribal raid were absent from the skirmishes which arose periodically in the course of ordinary interclan relationships. Disagreement over rights to land in the neighbourhood was one of a number of causes of interclan hostilities (see Williams 1930:107, 163). But we found no evidence from the area discussed in this report to indicate that land disputes between members of different clans
[721] involved the mobilization of their descent groups. Informants firmly denied that people would resort to attacking neighbours from another clan in order to acquire land.

[728] In presenting a picture of continuous feuding between local kin groups within the tribe, Keesing (1951:6) quotes Williams out of context: Williams (1930:311; and 160-7) was referring to the ineffectiveness of intertribal truces not to instability of peaceful relationships between these smaller groups when he says that no village lived in permanent security for fear of raids from its neighbours. The tribe lacked close political cohesion but relations between local groups within it do not seem to have been as precarious as Keesing describes. As Plant (1951: Appendix 3) indicates, a network of affiliations between descent groups in widely scattered areas formerly ensured generaly peaceful relations within the tribe.

614 The frequency with which fragments of one clan are found
701 scattered in 3 or more districts of the tribe suggests that here
[182] Langness' discussion of the Highlands (Watson, ed. 1964:174) may be relevant when he points to the probability of a causal connection between continuous violent warfare and the weakly patrilineal structure of groups,[2] in view of the fact that most warring groups needed continually to replace losses in numerical strength by recruiting outsiders; they would repeatedly scatter, regroup, take refuge or attach themselves permanently to stronger groups for

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[1] In fact, Williams (W.37) records that members of Jegase clan once fought some of the Sarahu, even though the names of the 2 clans were linked as the name of the political unit which he defined (see p.34).

[2] See sections c-f of this chapter.

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are
[614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[186] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that
[628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[778] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,"
241 but more often it was "simply the lax method of horticulture
[518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow
731 zone, and people may have to scatter out to live on wild
165 roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
178 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[199] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

tribes (twelve items), including in his list many *hambo* still in common use. 301
Williams (1930) criticised this account on two grounds: some kinds of *otohu* 881
were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams 881
reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed [535]
up in full dancing regalia, after which they make an impressive début at the [292]
village dancing ground. The ritual is known as *kogumbari*. It is performed by an [301]
expert whose main concern seems to be with the aesthetics of dressing up, and who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[2] this is not part of the [431]
initiation ritual as such, which occurs immediately after *kogumbari*. The dressed [301]
up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*aguma*) who recite their 881
feats of war, their killing of victims. Initiates sit on a row of sticks laid on the 301
ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother) [729]

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 [798] When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 [266] The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20) we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

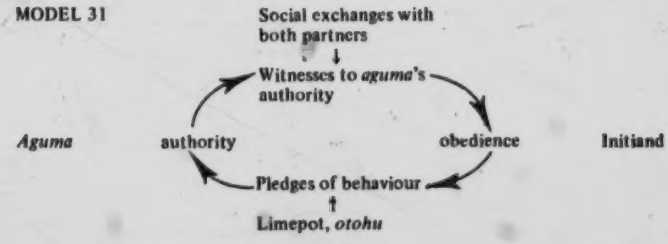
A [See p. 135, Cat. 431--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

729 881 [537] they would always add credibility to the words of the *aguma*, as their authority would not be questioned by the initiand.

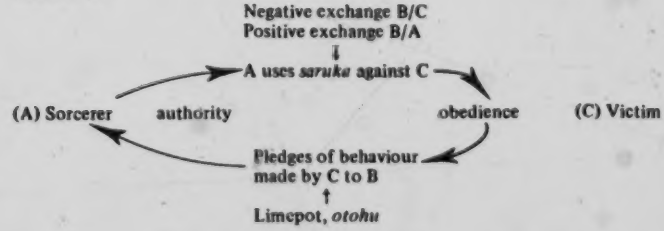
The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



754 626 [628] If the initiate should later break a pledge, the wronged person may call upon a sorcerer whose position I have suggested to be symbolically equivalent to that of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

their home country. American troops, by their equal treatment of Negro soldiers, created the impression that racial barriers had no place in their society! The troops' friendliness to the Papuans was tangibly expressed by gifts, not only of tobacco and other small luxuries, but also of discarded tools and equipment still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

The Eruption of Mount Lamington. In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

Intensification of Development Policy. Large scale, expertly planned social, economic and political development did not start in Papua until around 1960 (Parker 1966:189). In the economic sphere the first major development success was the building up of a coffee industry based on the production of indigenous growers using their own village land. While by far the largest quantity of this coffee is grown in the Highlands, the yield in the Northern District was enough to assure to any Orokaiva who entered the scheme an income of something like $60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

Title improvement work is also beginning to contribute to agricultural development. Until 1956, the government kept entirely aloof from indigenous tenure problems and passed no ordinances enabling it to adjudicate in land disputes. By that time, however, it had become obvious that commercial arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

Road improvement was another necessary preliminary to significant village

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

[535] Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

the men who carried the coffee to Higaturu each Saturday were each given a stick of tobacco. By 1950 the basis of payment had been changed and producers were paid immediately and in cash for their produce.

The post-war drive did not last long and when official pressures were relaxed production dropped markedly. During 1949-50 extension staff made a further attempt to revive the scheme: seven plantations in the Higaturu area were fully rehabilitated and similar work was proposed for the plantations east of Popondetta. New processing equipment was purchased and a new coffee factory built at Higaturu, but it was hardly completed when Mt. Lamington erupted early in 1951 destroying the factory and many of the plantations as well. Production from the plantations scheme ceased as a result of the eruption, but it is doubtful whether it would have continued for long in any case. The price was low, (1) no external sanctions were imposed (and the people were not permitted to impose their own sanctions) and in many instances there was dispute over the shares to be given to landowners, supervisors, and others. In 1955 extension staff made a third and final attempt to revive the scheme, but it too met with little long term success.

No precise production figures are available for the plantations scheme in the Northern District, but as this scheme produced most of the coffee exported from Papua, total exports from the colony give an indication of the pattern which applied in the Northern District. These are listed in Table 3 below.

(1) In 1950 coffee was being bought in cherry at 2d per pound which is equal to about 10d per pound for parchment coffee. Data published in P.A.R. 1949-50 : 17 show that 40,160 man-hours were worked on the 56 acres of coffee then in production and that £767.12.3 was received from coffee sales. Making no allowance for establishment costs, this represents 4½d per hour worked.

ment coffee pulping machine was withdrawn. Supervision of the coffee was taken over by the village constable (who had been in charge of the coffee before the war) but no records of attendance were kept. Later, at the constable's suggestion, a Patrol Officer is said to have appointed one Haruma (who is a classificatory brother of the constable's wife) as coffee boss. This must have been an unofficial appointment as he was not paid. There was by this time a continuing dispute about the distribution of income from the coffee.

The Hoiwo'undi sub-clan, on whose land the Ongoho coffee was planted, claimed a larger share of the proceeds because the land was "theirs". As no agreement was reached, the Hoiwo'undi forbade members of other sub-clans to enter the coffee gardens. This prohibition was respected even though many people felt it to have been unjust. Legally of course neither Hoiwo'undi nor any other sub-clan had any right to the land, because the whole garden area had been purchased by the Crown in 1922 and set aside as a reserve for the purpose of a native plantation in 1923. But security of tenure is dependent much more on beliefs than it is on law and in fact the people do not concede the government's right to the land. All are agreed that it is Hoiwo'undi land, though the other sub-clans consider that as everybody cleared the bush and planted the trees, it is unjust that Hoiwo'undi should have denied them access. Nobody, however, seems to deny their right to do so. In fact Hoiwo'undi people had been using the front part of the area for a food garden before the community coffee plantation was established. One family of Akute'undi sub-clan had also been gardening there with the approval of Hoiwo'undi. The coffee boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

For a time the community garden was abandoned altogether, but later some Hoiwo'undi people harvested coffee there spasmodically. The income was shared within Hoiwo'undi. No weeding, pruning or other maintenance work was carried out at this period. At the time of the Mt. Lamington eruption in 1951 all work ceased. The government coffee factory and buying centre was destroyed and so were several of the community plantations.(1) Due to the trauma caused by the disaster

(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

and a lack of buying facilities, no coffee was picked at Ongoho until 1952. 241 [131]

In that year a local company (R.F. Bunting & Co. Ltd.) began buying coffee. The market price was higher than it had been when the government was buying (i.e. up to 1951) and it continued to increase. Some Hoiwo'undi resumed harvesting coffee from the Ongoho community block, but there was constant tension between them and the other sub-clans, Akute'undi in particular. Only a little of the coffee was picked, most of it by the village constable and the coffee boss and their close kin.(1) In 1953 they took two sacks of coffee to the Department of Agriculture in order to buy a coffee pulping machine worth £21.0.0. The machine did not function properly and after several years a passing Patrol Officer took it to Popondetta for repair. The Patrol Officer was later transferred and the machine was never located again. The owners still harbour a grievance on this account. [578] [258]

Agricultural extension services in the district were expanded during 1955-6 at the same time as the Higaturu Local Government Council was being formed. (The council area embraces all except one of the community plantations). Although agricultural policy at that time was to encourage future planting by individuals rather than groups, efforts were made to increase production from existing community plantations. Extension workers visited every community plantation and wherever possible enlisted local co-operation to have undergrowth cleared and trees pruned. Not all the people at Ongoho worked, but factional differences were sufficiently contained for several sub-clans to work together under the supervision of extension workers. Once the major task was completed and the 654 245 245 578 [654]

(1) The village constable was a member of Akute'undi sub-clan but was married to the most senior woman of Hoiwo'undi sub-clan. She has a very forceful personality, is married within her own village and is the only member of her family to have borne children. They will therefore acquire some land rights from her. The land on which the community coffee is planted was previously used for gardening by her father and her brothers. Her husband was village constable and he and his lineage pick coffee, but other lineages of his sub-clan do not and he is as forceful as his wife in denying their right to do so. In fact the constable and the coffee boss (who is a classificatory brother of the constable's wife) seem to have co-operated throughout to maximise their joint advantage. [425]

likely to emerge. Problems of work organization and income distribution may nevertheless arise.(1) 241 614

Problems of work organization: The communal plantations almost all involved several unrelated descent groups which traditionally recognized no single leader. The Orokaiva did occasionally form larger ad hoc groups for warfare and sometimes for forest clearing, but these were temporary associations directed to the achievement of a short term goal. This of itself does not preclude the formation of new and larger groupings with unitary leadership provided there is either a strong desire for group action (and the necessary institutions to direct it), or strong external sanctions to enforce it. [726]

The earliest communal plantings of coconuts and rubber by the Orokaiva were carried out under instructions from officials and sufficient pressure was exerted to ensure compliance. The pressure was not, however, maintained and the coconut and rubber trees were little cared for after planting. Nor was harvesting for market enforced. Prices were low; the coconuts were seldom made into copra and the rubber was never tapped until the time of the war.(2) 245 249 657 466

The working of the coffee planted under the Native Plantations Ordinance was strictly supervised. A village constable was in charge of each local group, the European officer in charge patrolled the area regularly, and defaulters were severely punished. The communities regarded the whole operation as one of oppression by the government. During the period that government sanctions were reduced and finally withdrawn, coffee prices were high (more than ten times higher than immediately pre-war). Many people therefore wished to continue working the coffee gardens, but the community was not traditionally equipped with adequate sanctions to ensure that individuals did their share of work, and the law specifically forbade the exercise of sanctions by any indigenous individual or group. 245 657 466 [626] [461] [626]

(1) Since writing this we have been informed of a small (3 acre) communal tobacco-growing project which began at Soroputa in 1948 on the land of a single descent group. It was reported to have functioned efficiently until it was destroyed by the Mt. Lamington eruption in 1951. [249] [731]

(2) For details of the war-time rubber-tapping scheme see Rimoldi, 1964.

time the process of readjustment and restoration was still a major question demanding attention. A few years later the third misfortune occurred.

The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be considerable increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

After the war, compensation was paid for property of the villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

For our investigations, Sivepe was chosen from the villages in the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

The interest which governed our own selection of a sample of manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organization on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [121] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva parishioners.[2] [65] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw 1951.. [2] See Crocombe 1964:31.

614 Although it is said that members of these clans were allies in the past and today their local branches in the one neighbourhood intermarry, their relationsip to one another in regard to land is not directly determined by the recognition of the historical tie between them.[1] Plant (1951: Appendix 2) suggests that another informal link exists between clans whose founders are said to have been allies or associates.

The typical dispersed clan among the mountain Orokaiva now appears to be only a social category. Its members still acknowledge common descent from a single ancestor and have inherited the same name, but this gives them no special access to each others' land. Men have only a superficial acquaintance with the land of other branches of their clan. Nor does the clan seem to function as a group in any other sphere of activity.[2]

178 614 [574] [602] In the past the scattering of clan fragments in distant villages probably served an important function in facilitating travel, but clanship has been almost wholly replaced in this capacity because a traveller now can usually receive hospitality from various kinsmen, often closely related, who are widely dispersed, for one or another reason associated with social and economic change in the area.

614 [73] [62] We have no details concerning either the present number and size of clans among the mountain Orokaiva or the extent of their fragmentation. There is no doubt that the growth of more nucleated villages since the 1951 eruption of Mt Lamington (see Secs b. and e. of this chapter) is a significant uncontrolled variable in any inference from a situation preceding the eruption. Nevertheless, we think that a reasonable indication of the present pattern of

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[1] Plant (1951:3 and Appendix 2), however, is in complete agreement with Williams (1928:126 ff.) and says that 'ownership of land is vested in the clan'; although this ownership is nominal and in practice each branch of the clan regards the land it uses as its own, people from one village agree that their clansmen elsewhere have 'every right to come and settle at their village and that land would be made available to them' and similar rights would be conceded by members of a 'parent clan' to one of its branches which has assumed a new clan name.

[2] Further information now being collected at Sivepe by the New Guinea Research Unit will show whether or not this statement holds for economic activities in general; cf. these clans with the Star Mountains patriclan (J. Pouwer in Watson, ed., 1964:136) which can 'best be characterized as a name group, since the clan name passes from father to son', and 'is neither exogamous nor corporate with respect to political, social, religious or legal matters'.

166 the Jegase people had no land on the Awala-Kendata road nearby,
361 where they decided to build, they acquired rights to house-sites
613 on the road on the land of the Be'ohuahije[1] in return for rights
[425] granted to some members of that clan to build on Jegase land 3
miles away at Awala No.1. The Jegase people had begun to move to
the new village, now Binduta, when Mt Lamington erupted. Although
● [731] they were outside the limits of the area of destruction the people
were evacuated for safety.

The Sesewopa, a small lineage, had accompanied the Bebehupa in their moves to Korogombata, Korinasusu and Binduta.

The Berekipa and the Arehu according to the men of Bebehupa, which is the dominant Jegase lineage, are groups which have attached themselves to the authentic part of the clan. The ancestor of 2 of the 3 Berekipa householders in Sivepe had also lived at Simbehata. It is generally conceded that he was a Jegase man but he left Simbehata to establish Euru village and then moved across the Sohu River to Hamburata several miles to the east near the present Kiorota, where he cleared and laid claim to virgin land about 1910.

[682] The father's father (b1)[2] of the oldest householder, another Jegase man from Simbehata village, was killed near Divinikovari in a feud with the Togahau people. On his death his infant son (c1) was adopted by his wife's brother at Hamburata village and his land was taken over by other Jegase men. The son had been named after a Timumu man[3] of Euru village who allocated a parcel of land for his use, when, as an adult, he returned from Hamburata relinquishing any land rights he held there. He gardened for some time on the land of his sister's husband, a Be'ohuahije man but re-established rights to a number of parcels of his father's land which had been controlled by Bebehupa and Arehu lineages in his absence. He founded Pusahambo village on this land about 1920 and was joined by his wife's brother, a descendant of the first migrant from Simbehata to Hamburata. When he died at Pusahambo his sister's son (d2J) married his widow[4] and adopted one of his sons, now head of the second Berekipa household in Sivepe (d3J). This man's son is the third Berekipa household head (e2J).

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1 The Be'ohuahije formerly lived in the nearby villages of Saunhambo and Hehereta and their land adjoins Sivepe village.

2 See Genealogy, p.52. A A

3 For relationship between namesakes (tato) see Williams 1930:96.

4 See Williams 1930:132: 'There is no rule against marrying out of one's generation.'

A,[See Category 601, p. 82--Analyst]

166 361 613 of the 2 senior men of Sivepe had divided their allegiance between branches of the clan at Euru and Soroputa and had exercised rights to land near both places. Since the death of his father the Pekuma man (d1T) has lived first in Euru and then Sivepe with his mother's kin and later his wife's kin. He and his adopted son (e1T) hold 28 acres nearby but he has never cultivated the land his father used at Soroputa; he sometimes obtains the permission of his father's brother to collect the produce from trees his father planted (see p.24).

About the time the older Hajejopa man (d15T) established his household at Euru, he was involved in a dispute with his father's kin from Soroputa who wanted him to return or else relinquish his rights to the land his father had cultivated there before settling permanently at Euru. Like the Pekuma man he preferred to settle on the comparatively large landholdings (18 acres) near Sivepe and severed most connections with Soroputa.

• 73 36 (ii) Changes following the 1951 eruption. Sivepe-Pamba and Binduta were a few miles outside the area destroyed by the major eruption. Referring to the population of these marginal areas Keesing (1951:3) says that 'after the first panic of scattering... local groupings were in the main able to reassemble in the regional camps with such official aid as was necessary'. Refugees from the west side of the mountain were collected from emergency encampments along the Kokoda road and taken to a regional camp first at Wairope and then at Ilimo near the Kumusi River. The villages of the Jegase and Timumu were included in the danger zone which was defined about 4 months after the first eruption. They were about 7 miles from the summit and the danger area extended for 8 to 12 miles around the active crater.

When the limits of the zone were determined about 3,000 people whose villages were not closed off or who could find kinsmen to live with in resettlement areas outside the zone left the refugee camps. Most of the 2,000 who remained for some time at Ilimo were from the villages such as Sivepe on the more fertile land higher up the west and north-west slopes. Members of our sample however left to live with clansmen or other kin at Awala No.2 on the main road. In the chain of fairly continuous settlements which grew [578] along the road great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among leaders from different local and kin groups.

Most of these villages were still partially dependent on emergency rations issued to them while breaking in new gardens. Some of the Jegase people in Awala had their own small pockets of land nearby where they planted emergency crops and foraged; some made excursions during the day into the closed area to collect

A,[See Category 428, p.24--Analysis]

731 361 food from their abandoned gardens which they found in good condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

613 361 [578] [177] It was not long, however, before the Timumu people became involved in a protracted dispute with members of Kongahambo village (a new resettlement concentration near Sasembata), over garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

[754] Meanwhile the Bebehupa had returned after the eruption to Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

614 361 (iii) The distribution of other clan branches. One Jegase clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Nahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

434 [583] [431] [525] was in recognition of kinship obligations including bride price and gifts while 49 per cent of income was derived from these sources.

Gambling does not appear to be common within the village but intervillage visits are not infrequently arranged for this purpose. Few men in the sample claimed any significant winnings or losses for the year but during our stay some men, in one evening's gambling, lost $22 to members of another village who had already won $10 from them in 1962.

454 Nine of the 12 householders were holding personal savings at the time of our survey; in 3 instances where men had formerly been wage-earners for some time they had opened Savings Bank accounts which they retained.

A son's wife living with 1 householder had received some money from her kinsmen and some from her husband who was absent in employment. The money had been banked but was not recorded in our survey.

Apart from $60 in savings certificates maturing in 1966 which are contributions to joint accounts (see Appendix B) the ratio of current savings ($10 per household) to annual income is 1:2.7. Savings had decreased by 40 per cent during 1962 but income also seems to have been considerably higher in the previous year.

In a sample of 13 men from a nearby area in 1951 Belshaw (1951:12) found that only slight withdrawals had been made from pass books issued about 2 years earlier under the War Damage Compensation scheme; almost no deposits had been made. The average account had a balance of £4 with a range from £1.17s. to £8.1s. The same people claimed to hold other cash in hand ranging from nil to £39 with an average of just under £10. A small part [73] of this may have been cash payments made under the scheme. Refugees from the Mt Lamington eruption received other payments later from a relief fund. We could obtain no reliable information to account for any money received by members of our sample on either occasion.

436 The evidence is slight but a comparison of the 2 small samples suggests the possibility that with an increase over 10 years in the range of sources of income and in consumer demand, money is now circulating more freely in the area.

[301] [237] [321] [555] Shell and bone ornaments (hambo) and head-dresses (di) - made from feathers of the bird-of-paradise, mountain parrots, hornbills and cassowaries - known collectively as di hambo, are held by the people of Sivepo as a category of wealth, items in ceremonial presentations and as objects of display. In traditional Orokaiva society these are prestige tokens but seem never to have served as

[TEXT CONTINUED ON PAGE 80]

A. [See Category 454, pp. 107-108--Analyst]

241 242 acres[1] which yielded 84 tons of hulled coffee in 1938-39. Some
[433] 1,000 cocoa trees were also planted in the pre-war period, although
only the copra and coffee were worked during this time. All com-
[177] mercial agriculture ceased with the Japanese invasion in the second
world war and was again interrupted by the eruption of Mt Lamington
[731] in 1951. The principle of compulsion was withdrawn in the same year
[466] and community enterprise largely ceased in the mid 1950s with an
increasing trend towards individual plantings. The whole scheme
was characterised not only by low returns to labour, delays in pay-
ment,[2] frequent disputed claims to plantings and serious problems
in work organisation, but also by a definite feeling of resentment
on the part of the indigenous participants.

(c) War and natural disaster

177 The Orokaiva view of the government was no doubt influenced by
[731] the second world war, which led to the Japanese occupation of the
Northern District from July 1942 to January 1943, and by the erup-
tion of Mt Lamington in January 1951, causing the death of over
4,000 people and the destruction of the district headquarters and
staff at Higaturu.

657 The impact of the Japanese invasion and subsequent Allied re-
advance has never been assessed but must be considered profound.
All Australian administration ceased and, when resumed, was vested
[466] in the Australian New Guinea Administrative Unit (ANGAU), a military
authority. Several thousand men co-opted as carriers by both
Australians and Japanese worked under very arduous conditions.[3]
Since the Orokaiva lay athwart the main Buna-Kokoda route which was
the scene of fierce fighting, many villagers retreated into the
surrounding hills where they were obliged to subsist on very
[687] limited resources because of the absence of much of the potential
labour force.[4] Others sided with the Japanese or profited by the
[541] power vacuum to attack or betray Allied troops and civilians or to
assert their authority over other Orokaiva. On resumption of
Australian rule, twenty-two men were sentenced for such deeds by a
military tribunal and publicly hanged at Sangara and Higaturu.[5]

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1 An estimated 111,000 trees at a spacing of 10 by 10 feet.

2 As much as three years lapsing between delivery and payment (see DDA, DS-17-4-5).

3 For details of terms for the conscription and of conditions, see McCarthy 1959:116, 132.

[165] 4 A 1948 report refers to a rapidly decreasing population on the northern slopes of Mt Lamington and attributes it in part to the war when many died from malnutrition while hiding in the bush (Higaturu 29-8-33).

5 A European informant stated that 'several thousand Orokaiva' witnessed the execution, the women 'wailing and mutilating themselves'.

461 In 1944 attempts were made to revive the communal plantations but employment by the American military in the Inonda-Oro Bay area and other work for Allied troops made the people revise their ideas on the value of their labour[1] and resulted in a general lack of enthusiasm for the cash cropping schemes.

731 The eruption of Mt Lamington and the subsequent floods destroyed many villages and gardens and some 5,000 survivors had to be evacuated to refugee camps at Oro Bay and Ilimo. While the majority were resettled within four months, 1,500 people from within a 'danger area' of eight to twelve miles around the active crater were obliged to remain at Ilimo camp until July 1951, or live with clansmen elsewhere, and re-occupied their villages only over a period of years.[2]

731 823 Many Orokaiva viewed the disaster as divine punishment, in particular for their lack of co-operation with governmental and mission programmes,[3] and they were reported to deeply appreciate the extensive relief measures, including food, tools and medical services, provided by the Administration. Subsequent Administration reports remark on the willing co-operation of the people in voluntary road construction and their renewed interest in cash cropping.[4] However, once the need for producing food as a relief measure had passed, all staff of the Department of Agriculture were withdrawn from the District. Interest waned and was reported to be 'completely dead' in 1953.[5]

464

(d) Activities of the Anglican mission

797 Apart from very limited activity by Seventh Day Adventists in the Pongani area and Lutherans among highland labourers at Sangara, the Anglican church is the only mission working in the Popondetta sub-district. It first established itself at the Mambare River in 1900 and activities were gradually extended southward along the coast, but it was not until the 1930s that stations were established among the inland Orokaiva, at Isivita and Sangara. In 1965 the

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[1] Patrol Report, Higaturu, 1543/44; Crocombe 1964:21.

[2] See Rimoldi 1966:45-6 for a fuller description.

[3] Belshaw 1951b:242; Keesing 1952:18. However, some informants viewed it as punishing the Europeans (thirty-four of whom were killed) either for the hangings at Higaturu and Sangara, or for not having provided the Orokaiva with education and access to income.

[4] This was in part an expression of the high prices obtaining during the Korean War.

[5] DDA, Popondetta, D8-17-4-5.

universally small and there is no evidence to suggest that any village producers are employing labour to increase production.[1]

Monetary investment at the village level is low and there are no motor vehicles owned by individuals or groups of subsistence villagers,[2] although a number of villages now possess copra driers and coffee pulping machines.

The foregoing data suggest three main factors, largely unique to the sub-district, which may explain this situation.

(i) Labour shortages. Since pacification there have been repeated references to a high proportion of the adult male labour force being absent from their villages. Humphries (1923:203) refers to the Kumusi district being a 'famous recruiting-ground for plantation labourers' at the time of the first world war. Patrol reports after the second world war make periodic references to shortages of manpower in the villages and suggest that the regulation maximum of 30 per cent absent was at times exceeded (e.g. Higaturu 1-1543/44). The establishment of plantations under the ex-servicemen's credit scheme attracted much local labour at a time when returns from wage labour were considerably higher than those from cash cropping. Many Orokaiva still prefer wage labour to commercial agriculture as a source of cash.

(ii) Consequences of the disasters. The effects of the war and the volcanic eruption served to accentuate the instability of settlement and fragmentation of groups. Resettlement after the eruption took several years in some cases and is likely to have deterred interest in planting commercial trees, at least in the directly affected area, which was the most densely settled part of the Orokaiva region. The findings quoted earlier[3] suggest that the initial Orokaiva adaption to the volcanic disaster was more active

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[1] Since our survey, one Inonda man has taken a job as a driver in Popondetta and employs a labourer at $3 per week to maintain his food gardens. For a description of four Orokaiva entrepreneurs with large holdings of cash crops see Crocombe 1967.

[2] With the single exception of the indigenous ex-servicemen settlers, several of whom own vehicles; imported foodstuffs comprise a significant element of their diet and considerable use is made of outside labour, commonly kinsmen. Payment, however, is often nominal or in kind.

[3] See p.16.

A,[See Category 731, p.18--Analyst]

[173] [143] than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

[178] [171] The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

[177] [177] [65] (iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. [166] Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

[4] Belshaw (1951:248) makes a similar allusion.

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

474 support, a peak number of 19 households being engaged during 1949.
241 In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocoa pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-
● [731] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 The mission-sponsored Christian co-operative embraced more
241 people and a much greater area than the Gombe Co-operative. The
177 Anglican Mission at Gona is responsible for an area that stretches
797 approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[657] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

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[1] The eight societies within the association were to be centred at Gona, Garara, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

OCEANIA

A JOURNAL DEVOTED TO THE STUDY OF THE NATIVE PEOPLES OF AUSTRALIA, NEW GUINEA, AND THE ISLANDS OF THE PACIFIC

VOLUME XXI JUNE 1951 NUMBER 4

SOCIAL CONSEQUENCES OF THE MOUNT LAMINGTON ERUPTION[1]

By CYRIL S. BELSHAW

THE eruption of Mount Lamington in the Northern Division of Papua in January, 1951, was accompanied by the immediate and total destruction of Government Station and Anglican Mission Station and the death of about 4,000 people. About 5,000 natives were evacuated from the blast perimeter to refugee camps at Oro Bay and Wairope; the Wairope camp was destroyed by floods a few days later and moved to Ilimo on the Kokoda Road. The villages of over 1,500 of the survivors were either destroyed or considered to be unsafe for habitation. In addition to these people those who had their gardens near the rivers which were fed from the Lamington slopes saw them destroyed by floods, while others on the Managalasi (southern) slopes of the volcano, not directly affected by blast, had gardens ruined by volcanic dust. This article is concerned principally with the survivors directly affected by the blast, that is those people living between Popondetta and Wairope who either had their homes and gardens destroyed or who are acting as hosts to such refugees, and who may be described as the Periho section of the Orokaiva people.

Such a sudden and devastating experience is a shock, not only to the physical and mental systems of the people who suffer it, but to the whole fabric of society. It will be many years before all the consequences can be clearly defined: in the meantime this article may serve as a tentative analysis and in some measure a historical record.

According to European eye-witnesses now in the area, the people were disturbed but not unduly frightened during the five days between the first signs of eruption and the devastating blast. The night before the blast, when the sky was darkened and tremors were felt, large numbers visited missionaries and government officers

[1] This paper is based on a two weeks visit to the area during April and May, 1951. I wish to thank His Honour the Administrator of Papua and New Guinea for making the visit possible; also the re-settlement staff, all of whom were so generous with hospitality and information.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

823 for advice. The tragedy is that subsequent events were unpredictable. When
[731] the blast came it was so swift that there could only have been two or three minutes' warning, and the phenomenon was so far beyond experience or imagination that the people were too numbed to panic. Good order was maintained and the refugees successfully assembled in camps in a remarkably short while. Within two days camps were operating and supplied by air.

823 As the people settled and began to take stock of events, they began to seek for
731 explanations. An aeroplane had been flying close to the mountain at the time of the blast, escaping in the nick of time. One rumour had it that this aeroplane had
[784] dropped a bomb. Most explanations were, however, religious in nature. Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. By April most of these specific rumours
[783] had been countered. There remained, nevertheless, an almost universal belief that God had punished the people for their sins, and these sins were enumerated in general terms, such as lack of co-operation in Mission and Government plans for development. This sense of guilt is a most important factor in resettlement attitudes.

731 Another factor affecting resettlement attitudes was the speed, scale and nature of the relief measures. The war-time miracle—the rapid mobilization of resources—was repeated by the European, not for purposes of destruction but for the help of the Papuan people themselves. Once again the people asked themselves how the European was able to do this; and they were grateful that their need had been met.

Relief was not only provided in the form of rations and building sites where the people erected humpies for temporary shelter. Medical services in the camps were directed not so much towards the healing of the wounded, for few of these had survived, so much as towards the maintenance and improvement of general health. The Higaturu Hospital was completely destroyed, but excellent field dispensaries were set up at Oro Bay, Popondetta and Ilimo. At Ilimo there was also a baby welfare clinic, staffed by two European nurses and Papuan assistants. In a few weeks the Ilimo dispensary and clinic had established itself as a popular institution, serving the needs of surrounding villages as well as of the camp. The large numbers treated bore ample testimony to the scale of medical need in the district and the regularity of out-patient attendance was notable.

[873] The Government maintained a technical training school at Higaturu, and the Anglican Mission had an advanced school at Sangara. Both of these were destroyed with almost complete loss of staff and pupils, many of whom were almost ready for graduation. Immediate relief measures could do little to replace this critical loss. But the Mission, with Government assistance, recommenced village-level schools in the camps. At Ilimo particularly the Government started adult education classes, partly to provide something useful for the people in their leisure hours, but mainly

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

as a first step in their wider rehabilitation. Lectures were given by Europeans, adult illiterates were taught the three " r's," sports were organized, and as a welfare measure the old people were given prepared meals in a " soup kitchen." Once again the response was enthusiastic, indicating a real demand. As refugees moved out of the camp back to villages, it was common for young men who had missed their Mission schooling, or who considered that schooling to be insufficient, to return to Ilimo for the sole purpose of continuing their instruction. Unfortunately, under the unsettled conditions they had to be sent home again.

As soon as the danger area had been determined villages outside it were re-started, leaving only 1,500 people at Ilimo by April. These 1,500 people were not permitted to return to their village sites except under special passes to obtain garden produce. An administrative officer was detailed to undertake research into native land tenure and social groupings in the area with a view to determining sites for re-settlement.[8] As a result of his recommendations these refugees were returned to certain areas of land which they were said to own, or which had been granted to them by neighbouring villages. Women remained at Ilimo until shelters had been erected for them, but by June they had rejoined their husbands and the camps were evacuated. A Government patrol post was set up at Saiho in the centre of the evacuation area, and medical facilities were transferred to Saiho from Ilimo.

The policy behind these moves was aimed at re-establishing gardens in the shortest possible time, and the building of an improved style village-system. In addition consideration was given to the possibility of large-scale community development. But there were many difficulties in the way, and the method of carrying out the policy often created further difficulties.

In *Orokaiva Society* Williams characterizes the people as being fierce fighters but gentle and harmonious in their domestic and intra-group relations. Whether or not that was true twenty years ago, Europeans with recent experience of them say that they are now highly excitable, with rapidly inflamed tempers which, however, quickly subside. When under the influence of temper they are said to be violent, and to vent their violence on people near at hand, particularly wives. There is a tendency towards suicide in the case of disappointed love or the loss of children, and they will throw hysterical fits. In view of these conflicting accounts it is impossible for me to judge whether the emotional activity I observed after the volcano was a mere passing phase or represented deeper emotional states. At the same time there were a number of influences present which certainly did nothing to reduce nervous tensions.

It is not difficult to describe these. The people were in refugee camps, and the atmosphere of refugee camps is almost always one of strict control, in contrast to the freedom of village life. Work had to be found to keep people occupied, and much of it was camp erection work that had no clear or immediate relevance to the desire

[8] See memorandum by H. T. Plant, " Re-Establishment of Isivita Villages," March 24, 1951, with Map and Appendices on Land Ownership, Class and Tribal Groupings.

[731] that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

[158] It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. [684] Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some [861] domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

731 This general irritability was carried back into the villages, where worry was not very much less than in the camps, and even the degree of daily control by European 657 authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be [578] better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

Before the eruption, a new type of village had been established in the Kokoda sub-district, consisting of a large village square of neatly clipped grass, with houses arranged in a single row along three sides of it. Although such villages have a monotonous regularity and lack of individual character, Europeans think of them as being aesthetically attractive, and they appeal to the administrative officer's sense of the fitness of uniformity in a well-ordered community. Attempts to introduce such villages in the Higaturu sub-district had largely failed, and the standard of housing was much lower. Further the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing. Such a move raises numerous social problems.

The actual decision as to who should live together in a village group was by and large easy to make. Mr. Plant's enquiry, referred to earlier, showed that individual patrilineal clans are often segments of a maximal lineage, the other segments of which live in different areas, and this finding accords with Williams' material. But in a given hamlet there would be two or more clans, not segments of the same lineage; and a number of hamlets occupying neighbouring ground would be considered together as a single village-group. Sometimes the village-groups were combined as a large area-group. Thus we have the hamlets Pengipe, Isivita, Huworituru and Boaiseta combining as Isivita No. 1 village; Egaturu, Tambori, Koropata and Kiorata as Tambori village; and Kakita, Hamamuta, Pija and Popondota as Popondota village; and the village-groups of Isivita No. 1, Tambori and Popondota, together with separate hamlets of Barewaturu and Kombeturu constitute the area-group of Isivita No. 1. Just how far these groupings result from administrative practice we cannot tell, but it is fairly certain that they represent genuinely-felt units. This does not, however, necessarily apply to the combination of the area-groups into tribal groups. Though the people we are considering appear to be one in language and custom, and to regard neighbouring groups as somewhat different, they are vague as to an over-all group name. Williams calls this group the Wasida tribe; Plant considers the correct name to be Periho. Although I think Plant is more correct than Williams on this point, it seems to me that the people themselves do not attach much importance to such a name.

The village-group was taken by the people as the new unit of residence. The earlier hamlets would take a side or section of a side of the village square, each clan building its houses contiguously. This meant that the residential group increased in size from units of 20 to 100, to units of 125 to 400. Further, the village-groups were much closer together, sometimes now being in sight of each other along the

621 main road, or even facing each other on opposite sides of it. Although this is clearly
361 the wish of the majority of the people, it does not suit all of them. There is some
talk that it increases the danger of sorcery, and certain individuals fear that it will
●731 mean an increase in the burden of responsibility of the village maintenance type.
Thus some hamlets have not joined in the general move, and others have split on the
question. Another question that cannot be answered at the moment is, how far was
the earlier hamlet system a result of tendencies towards violence and strife in the
society, and to what extent will such tendencies be overcome or intensified by the
new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

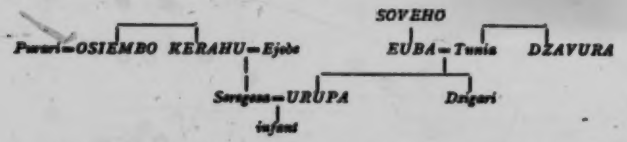
423 The inheritance of land is mainly patrilineal; but a man may work his wife's
613 land, and even, with the assent of her relatives, inherit a share in his mother's land.
This means that individual members of a clan, instead of inheriting land jointly
[428] from a common ancestor, often inherit and claim land in different parts of the country through matrilineal or marital influences. A clan, however, lives together and its members work land near their residence. Because of influences which lie outside the direct patrilineal line, or because of fragmentation, the person who has senior authority over this land may or may not be the genealogically senior member of
[554] the clan. At any rate, he is given a special title, *enda mamo*, or "father of the land." If the clan finds it necessary to move its residence, it will also probably move its land-use area. This involves a change in the balance of land authority and the emergence possibly of a new *enda mamo*. This has in fact happened in several of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
361 once the people started building homes on the new sites, all would be well. In fact
the situation is much more fluid and unsettled. The Putemo people, for instance, who had moved to a site almost contiguous with the magnificent new village of Sairope, had not yet settled questions of garden land. The village site was given to them by the Sairope people, but this meant removing themselves several hours away from the old garden lands, and they had not worked out to what extent they could claim land closer to them. In many cases individuals, say of the Popota hamlet, would agree to move with the hamlet. When they started building their home or inspecting the ground the real consequences of the move came home to them: it was not then merely an academic question. They considered alternative sites—their own near other new villages, their wife's, and their mother's. Often too the wife, on her return from Ilimo, would have something fresh to say about choice of site. Moves and uncertainty were frequent and it may be months before the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregeza married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregeza sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau kakaru talo tungenu
Ijoba poula talo tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Purari with a village woman relieved Seregeza of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

731 remember the dead in such ways. In the meantime one may hear the drums beating
765 in some villages as the men spontaneously come together for recreation and practice.

The programme of reconstruction, then, is very much a matter of the allocation
731 of time between such ends. To regard it simply as a matter of building houses and
making gardens would be a mistake. But even within that simple framework the
311 rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

731 Papuans, and particularly the Orokaiva, work with great vim and energy when
461 they can work as a team, within sight and sound of each other. The melodious song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting.
[657 The custom of Government Day, the day a week which is set aside for village hygiene
797] and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

657 So far I have been writing mainly of the immediate problems of re-settlement. The Administration is however taking a much wider view and there is a great deal of

PREFACE

[21] The following report presents data designed to be used in "A Comparative Study of Cultural Change and Stability in Displaced Communities," a project directed by H. G. Barnett. The report follows closely a list of topics specified as variables in the study. In a preliminary statement on the project, Professor Barnett (n.d.) states the reasons why the Orokaiva, living on the [731] slopes of Mount Lamington, were included in the project. In 1951, Mount Lamington erupted, some 4,000 people were killed, and the survivors were resettled under close governmental supervision. This resettlement, as a consequence of a natural disaster, makes the Orokaiva case comparable to the other 11 cases included in Professor Barnett's study. The focus of our attention must therefore be the social and other cultural consequences of this government-sponsored resettlement.

[731] I should at once note certain differences between this Orokaiva case and most of the others included in the study. Mount [101] Lamington forms the centre of a rather populous district which is [133] segmented into very small units socially and politically, but which forms a definite unity in cultural respects. (See Map I.) [361] Differences in language, social structure, political and economic organization and material culture in a wide area North of Mount Lamington, and included in the Popondetta, Sohe Popondetta and Saiho divisions of the Northern District, are so small as to be almost insignificant. Only one of the refugee camps established immediately after the eruption was outside this culture area, and its occupants were shifted back to the Orokaiva district within a few weeks. From that point onwards, people were no longer separated from their culture but only from their land. As resettlement proceeded, even separation from traditional land holdings was soon terminated, so that the typical "resettled" village, though in a different spot from the pre-eruption village, still had access to the same land holdings.

[21] In these circumstances, many of the traumatic experiences [731] which are the subject of the other case studies in this project are not replicated in the Orokaiva case. There is no question, however, about the serious social consequences both of the eruption and of the large-scale government intervention that followed. To trace these consequences at the present time is no easy task. As all the Orokaiva returned to their own land a number of years ago, a great part of this report is an historical reconstruction and the Orokaiva are neither devoted nor accurate historians. Most happenings are covered over in their memory just as the jungle rapidly covers over past cultivations and past settlements. Some songs, some myths, and the harrowing personal experiences remain.

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory,
feelingly recounted. But the fine points of organisation of the
resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research
648 procedure. I should also, however, mention one or two general
facts as a background to my report. The British Protectorate of
New Guinea was proclaimed in 1884; the Territory of British New
Guinea was placed under the authority of the Commonwealth of
Australia in 1902. The effective conquest and pacification of the
Northern District in which the Orokaiva live, occurred between
1894 and, say, 1906. It was to some extent speeded up by the
presence of some gold miners who had to be protected and the road
from Buna to Kokoda was built towards the end of that period.
[799] After the first world war, Europeans set up rubber plantations on
a small scale; the Anglican Mission became established, especially
along the coast. The process of pacification was a somewhat
bloodthirsty event. If the Orokaiva are asked to state when they
discovered what they call the "new day," i.e., modern civilisation,
they refer neither to this conquest, nor to the events following
the eruption, but rather to the second world war and its aftermath.

648 The Japanese conquered most of the Northern District in
177 1942 and were driven back, in the beginning of 1943, by the
combined Australian and American forces which crossed the Owen
Stanley range and defeated the Japanese along the Kokoda trail.
Some Orokaiva collaborated with the Japanese and killed or betrayed
Europeans who were left behind in the district. When the allied
forces came, the Orokaiva were able for the first time to establish
really comradely relations with white men who, moreover, were
generous with gifts and left behind much valuable equipment. The
returning Australian government developed a new colonial policy
after the war eliminating the old use of compulsion and corporal
punishment while the Anglican Mission and later the government did
much to improve educational facilities. Access to trade goods on
a major scale began about that time. Training in the handling of
cash crops, notably coffee, also dates back to the immediate post-
war period. The eruption, which occurred in 1951, certainly had
significant social consequences, but it is not easy to keep these
consequences, i.e., the modernisation that can be directly ascribed
to government measures arising out of the eruption, distinct from
the policy of social development that was being followed at this
time throughout the district.

731 With regard to the eruption, we must distinguish three
types of effect: first, a part of the district, notably that
occupied by the Sangara tribe, felt the direct blast and suffered
very heavy casualties, while all survivors were evacuated; secondly,
a part of the district, occupied by several tribes, was endangered

73 by the eruption though casualties were comparatively light and was also evacuated, though opened up again shortly afterwards; thirdly, a part of the district was not evacuated at all. Some villages in this last-mentioned part of the district became hosts of evacuated groups.

12 In the present study, as in all others included in the project, two villages were chosen for special study, one that belonged to the evacuated category and one other. Furthermore, both these villages were studied at two points of time, namely the time of the eruption and the time of the field study. In order to keep to this specification, it seemed less expedient to choose as the village for special study one of those which had been depopulated by the blast. The survivors of such villages were brought together into much larger villages which still exist today and which form an interesting subject for study but reconstruction of the pre-eruption situation is virtually impossible. Often the few survivors that can be found were very young when they managed to escape and it was precisely the maturer people who almost always died. The site itself has mostly disappeared.

The evacuated village chosen for special study is therefore one where few deaths occurred due to the eruption and where the period of enforced absence was short. The disadvantage of this choice was obvious: the effect of the eruption was comparatively mild; the difference between the resettled village and the pre-eruption village was comparatively small. As against this, there were two considerations: the most traumatic experience for the depopulated villages was, of course, the loss of so many friends and relatives. Here the effect of depopulation was, from every viewpoint, far more severe than the effect of relocation. It would have been almost impossible to keep the focus of the study from shifting away from the variables chosen for comparison. Furthermore, Sivepe, the village chosen for study, had been the subject of a number of previous investigations by the New Guinea Research Unit of the Australian National University, so that useful supplementary data were to hand.

As the control community, I chose Inonda, which had similarly been a sample village where the New Guinea Research Unit had collected data. This village belonged to the category that had never been evacuated, but had played host to a village of evacuees, Sewa, which has close consanguineal links with Inonda. One might argue that a better choice of a "control community" would be one lacking all links with the eruption, but such a village would have been hard to find close to the mountain. I feel sure, in any case, that the presence of the Sewa people after the eruption did not affect the variables in which this study is interested.

While the material on Sivepe and Inonda fulfills the formal requirements of this study, I felt I should present a somewhat

823 collection of vernacular texts written by a young man from Kiorota
773 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Hohorita and belonging to the Sangara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kanekari, "The Separation of Sumbiripa." This Sangara version is notably the richest in mythological content.

[174] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepa version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

133 Just when these preliminaries started is not clear; it may have been one week before the disaster or several weeks. The rumbling and tremors in the mountain, which were usual enough, became more severe; smoke was beginning to come out of the crater in thick puffs high into the sky; the number of craters rose from one to four or five. Ash covered the peaks, areas along the slopes became burnt; sometimes there were flashes of fire; several landslides appeared as brown streaks in the forest. Swarm-pattern earthquakes became widely felt throughout the area. On Thursday, 18 January 1951, the more active phase of the eruption began (Taylor, 1958). The emission rate increased throughout the day; the smoke gushing forth "at a great rate" varied from black to grey and spasms were noted in the crater activity. The emission was described by more distant observers as a slow-moving continuous dark-grey column ascending to many thousands of feet. A survivor who looked at the mountain through a telescope on that day noticed that a large hill had built itself up between the hills at the foot of Lamington and the mountain at the rear. That night, the mountain was shooting fire like an immense fire works. In the Sivepe area, at this time, and on Friday, stones were falling on the gardens, earthquakes were very severe and some houses had collapsed.

731 The Orokaiva interpretation of these events will be clear from what I have already written. It is explicitly supplied by Benson (1955) who reported that the fearsome happenings in the mountain were ascribed to the anger of Sumbiripa. I shall show [114] later that the same view was taken in Sivepe. The clearest description of the state of mind of the people close to the mountain (those who were mostly to become the victims of the blast a few days later) was given in a letter by Margaret de Bibra, head teacher at Martyr's School in the Sangara Anglican Mission. Miss de Bibra died during the eruption but her letter was found after her death (White, n.d.).

> The Papuans--well, most are calm, many are apprehensive and some really frightened, especially those whose villages are near the mount. It is all understandable, in fact it is to their credit that there is no panic. Lamington has not been a volcano within the memory of living man, nor in the legend of the [823] people. (But see above, E. S.) True, Lamington is feared as the home of spirits and no local man--even Christian--will venture to the top. As one of our Church Councillors said: 'The mountain people do not understand. They are afraid. We understand a little and we are afraid too. Our fathers did not know of it. The trembling of the earth--yes, but not

731 the fire. At night it is like a torch, and we do not understand the sign.'

We cannot be entirely sure what the mountain people would have done had they not been under European influence. Informants at Hohorita told me that the people wished to run away, but that the Europeans persuaded them to stay. It is likely that people seriously considered leaving the mountain during the few days before the eruption, but it is also likely that they feared the dangers and troubles that would have followed their departure. Where could they have gone? How could they have found food? Most important of all: would other clans occupy their land during their absence? The evidence shows that, in the circumstances, the mountain people contented themselves with statements of their apprehensions to European authorities and placed upon them the responsibility of deciding what should be done in this unusual and frightening predicament.

731 The two main power centres of the Orokaiva district at that time were both very close to the mountain (see Map II).A The
657 headquarters of the Northern District government administration was at Higaturu; Martyr's School and the main mission centre was at Sangara; both these places were subsequently destroyed by the blast and their residents killed. These were the foci of decision. Two of my informants were able to tell me something of what happened there: Fa. Albert McLaren, who was at Sangara until the day before the eruption and Mr. C. Searle who visited Higaturu on Friday, 19 January. Both told me of apprehensive Orokaiva asking European authorities what they should do.

The District Commissioner decided to discourage the people from leaving their home villages. He maintained throughout that there was no need to worry about the mountain. The circumstances that led him to this decision were described to me by Mr. Searle, by Mr. Paul Sebire, Assistant District Commissioner, Popondetta, in
[133] 1966 and by other informants. There had been several earlier eruptions in the district, one at Tufi in 1943 and another at Rabaul in 1937. The District Commissioner at Higaturu, Mr. Cowley, was well informed about the former while the latter had been witnessed by the Chief Justice of the Territory, Mr. M. Philips. The District Commissioner asked the Chief Justice for an opinion and the latter overflew the mountain on Friday, 19 January, to assess the situation. The Chief Justice advised that evacuation of the station was unnecessary. On the assumption that Mount Lamington was like the other volcano which he had seen in eruption, The Chief Justice believed that Mount Lamington could not be very dangerous, seeing that emissions on such a large scale had already occurred. On that premise the pressure built up inside the mountain had already been reduced, and only relatively harmless cold ejecta could now be expected.

A [See Cat. 118, pp. End Map 2(A)-End Map 2(B)--Analyst]

731 This line of reasoning was spread around fairly rapidly.
657 According to Father Albert, a message from the District Commissioner was read in churches on the Sunday after the Chief Judge's visit, i.e., on the morning of the eruption. This message said that the volcano would erupt, but there would be no reason to worry. Ashes would come but they would be cold. People should not run away. Not only the Churches, but also the Village Constables were advised in these terms. The Village Constable at Sivepe gave me a somewhat different description of the District Commissioner's message, but it was equally reassuring. Supposedly, there was water under the volcano which would come out sooner or later. The people should be told that this would happen. People were told, said the Village Constable, people waited two or three days and then the mountain blew up.

As Sivepe is not particularly close to the district centre of Higaturu, we may notice that district organisation in 1951 must have had a rather efficient communication system, using both the Church network and the Village Constable network. The Village Constable at Sivepe told me that he used to be in very regular contact with Higaturu and that the communication came to him during a routine visit. He added that he had been asked to return the Higaturu the following Tuesday for another meeting about the volcano.

In view of the subsequent events, there has naturally been criticism of the District Commissioner because he did not order the evacuation in time while he did evacuate his own wife and child. In his defense it may be said that he was expecting a proper vulcanological investigation that would have taken place as from Monday, 22 January. Furthermore, by calling a meeting of Village Constables for Tuesday, 23 January, he showed serious concern to keep the population informed and protected. Finally, it would have been hard for two laymen like himself and the Chief Justice to spot the difference between preliminaries of the "Vulcanian" type of explosion, similar to those of Rabaul and Tufi which they expected and the disastrous Peléan explosion that actually occurred.

731 There is no evidence that any Orokaiva people fled their villages before the eruption. This is striking because their own interpretation of the events, namely the anger of Sumbiripa, was a frightening one indeed. We shall gradually come to see that the alternative of leaving their villages was, to the Orokaiva, perhaps more frightening still.

Section 3: The Day of the Eruption

As the eruption itself is the central event of this entire report, I shall dwell upon it in some detail. I shall discuss it from five vantage points: the vulcanologist's, the experience of the Sangara people, the Sivepe and the Inonda people, and finally the action of the administration. The vulcanological aspects have been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption of Mount Lamington, Papua (1958). Taylor writes: "At 1040 hours on Sunday, 21 January, 1951, a paroxysmal explosion burst from the crater and produced a nuée ardente which completely devastated a surrounding area of 68 square miles." This explosion had a marked resemblance to that of Mount Pelée at St. Pierre on Martinique in 1902, when 29,000 people perished in a few minutes. The effect of the Peléan type of explosion is very different from the more usual one which is called "Vulcanian," and which occurred, for instance, at the famous eruption of Vesuvius described by Pliny. One may compare it, rather, with the effect of an atomic bomb; the lethal effect of the nuée ardente seemed to be due mainly to sudden damage to the respiratory system caused by inhaling hot dust. Almost 4,000 people were killed. Destruction in the inner zone of devastation was almost complete: the rain forest on the slopes was flattened and in some places the earth was swept bare, not even stumps remaining as evidence of the previous forest cover. At Higaturu, six miles from the crater, only one house remained reasonably intact; most of the buildings on the government station were carried away. Of the people who lived in this inner zone of devastation scarcely a single one remained alive.

Taylor classified a further 2? square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Hohorita came from villages such as Tunana, Seamu, Sehundeturu, all of which lie in the area of partial devastation. From the village of Sombo, on the boundary of the area of complete devastation, one man escaped (Table 1).

I interviewed members of 15 Hohorita households about their experiences during the day of the eruption. Some of them escaped because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Ambogo immediately

A [See Cat. 116, p. 205--Analyst]

731 afterwards, but most of those who attended church that morning were killed at Sangara. All spoke of the cloud of fire that descended after the explosion. One man described how he saw it killing people ahead of him and how, with his brother, he ran past the burnt bodies. Another man told that the wind hit him and threw him down; for hours he remained unconscious and the people who were with him had all gone.

When the blast came, everyone near the mountain began to run away from it. In this mass flight, some near the edges of the area of devastation were saved by strange accidents, such as the couple who sat down to pray and then a wind came and blew the hot dust back to the mountain. This gust of wind was mentioned by several survivors. After the explosion, a very wide area, far beyond the area of devastation, became covered with a black cloud so that the fugitives soon found themselves running in total darkness. Most of the fugitives say that they fled to the Sangara Plantation, a point directly North of their villages and outside the immediate danger zone.

Sangara Plantation lay, and still lies, on the only "arterial" road of the district, which runs from certain coastal points to Kokoda; it also lay on the branch road which led to the pre-eruption government station at Higaturu and the pre-eruption mission station of Sangara. Thus Sangara Plantation became the first rallying point for the fugitives from the Sangara side of the Mount Lamington slopes. There was, on this first day, a steady stream of people descending on the plantation but it seems that to some extent this point was regarded as a haven of safety. It lay outside the area of partial devastation; the only effect of the eruption was the darkness enveloping the plantation and the scattering of debris.
[464] The plantation, where rubber and cocoa are produced, employed a number of Orokaiva men as well as men from other districts. I shall describe later how the plantation very soon became a centre for the Australian rescue and resettlement organisation. At the same time it became a base for Orokaiva men who soon began to rush back over the devastated countryside in the hope of finding relatives who might have survived.

Along the Western slopes, the eruption caused few casualties but no less terror. The greatest immediate danger to life were fallen debris, especially large stones which formed deep pits in the village grounds and demolished some of the houses. Pumice and ashes also fell over the countryside to a depth of some inches and visibility was very low. Most people moved down the mountain slope at once, along the bush tracks but mainly along the branch road running in this direction was Mr. C. Searle's estate in Awala. Like the Sangara Plantation, this lay on the arterial road to Kokoda. It seems that some of the fugitives, including those belonging to the village now called Sivepe, stayed at this plantation

731 during the night. It did not, however, become a rallying point for resettlement organisation. It was too close to the mountain. Half an hour after the eruption, crowds of Orokaiva carrying pigs, dogs and babies, were already rushing past Awala Station westwards along the road to Kokoda. All these people from the Western slopes stopped at the Waseta Mission, a few miles past Awala, as they were reassured by the presence of a nucleus of Australian organisation. The Sivepe people and others who came from a relatively greater distance, stayed at Awala the night of January 21 and some reached Waseta the next day.

Along the Eastern side of the Mountain, among the settlements along the road to Oro Bay, there was no acute danger, but there was fear. Inonda, which was chosen as the control community, was never "resettled "in the sense that its people at any time left their village lands. When they saw the ash and smoke they did, however, consider themselves in danger because of the anger of Sumbiripa. Perhaps in response to police messages, perhaps spontaneously (Inonda informants say the latter) they shifted to the Inonda air strip, which was about a mile along the road in the direction of the coast and there waited for the white man to arrive. Meanwhile, the people of Seva, a related village close to (but well without) the line of partial destruction as shown by Taylor, evacuated their village and joined their relatives at Inonda. This was a more orderly evacuation than most, because the Papuan deacon (who lives at Inonda today and whom I interviewed) had somewhat varied the District Commissioner's message when he delivered it in church on that fatal morning. Though he followed his instructions by advising the adults to remain at Seva, he also said that they had better send their children to Inonda. Thus, when the mountain erupted some time after the service, the children had already gone. Upon arrival at Inonda, the Seva people joined their hosts and camped by the airstrip.

Section 4: The Beginning of Administrative Action

If it had not been for the influence of European administration, this flight from the mountain would probably have been followed by a fairly early return. Administrative measure, at first aimed purely at the relief of distress, soon began to include measures to restrain the fugitives from returning. These measures followed vulcanological predictions, this time based on sound scientific investigation, concerning the likely future behaviour of the 121 mountain. In considering administrative action, there are four 128 aspects to be distinguished: first, the investigation as to the nature of the disaster; secondly, the organisation of food and medical supplies and other immediate relief measure; thirdly, a

121 vulcanological study to guide future policy and fourthly, the
128 planning of longer-term resettlement, with which this report is principally concerned.

During the first day, communication was a difficult problem.
73| A plane sent to Popondetta on the day of the eruption could not land. All official radio communication channels in or near the devastation area were broken down. The government in Port Moresby was informed about the disaster by radio through a private transmitter owned by Mr. Searle and operated from Awala. In the afternoon a car containing an agricultural officer and a technician from the Anglican Mission (Mr. R. Hart) traveled from Popondetta to investigate the situation. This car, after making inquiries at Sangara Station, reached Awala and reported to the government. In the evening there was a second eruption, this time without a nuée ardente but noisier than the morning eruption, the fall of ash was heavier and much larger stones were ejected over a larger distance. The fall of ash was heavy enough to warrant the closing of the aerodrome at Port Moresby, some 140 miles away, on the following morning due to limited visibility. Searle has to stop transmitting messages from Awala as too many stones were falling and an electrical disturbance made transmission impossible. He shifted to Waseta which then became the centre of organised activity on the Western side of the mountain.

On Monday 22 January, the full resources of the administration were directed at rescue work. The Administrator, Col. J. K. Murray, and the Director of Health, Dr. J. Gunther arrived at Popondetta. Mr. Fred Kaad, an officer of the Department of District Administration (now Head of the Australian School of Pacific Administration, Sydney, where I interviewed him) was seconded from Lae to head an organisation to help the fugitives. On the Monday, he reached Popondetta and paid a brief visit to Inonda airstrip. The vulcanologist, G. A. M. Taylor, arrived the same day and began to observe the mountain which he continued to do for two years, being present for all the main active phases of the post-climactic period. At Waseta, the immediate food shortage was relieved from Mr. Searle's stores, but soon food, medicines and blankets began to be air-dropped. At Inonda, an expedition was organised to find missing people from Seva; some Seva people who had been wounded by the eruption were flown to Popondetta for treatment. Mr. W. Schleusner, from Sangara Estate, visited Higaturu and reported the devastation; he counted 200 dead. A district office was set up at Popondetta, to replace the destroyed office at Higaturu; from this office it was decided, on the same day, that refugee camps were to be established at Cape Killerton, for the Sangara survivors and all others from the Eastern and Northern side of the mountain, while the people from the West, now mostly gathered at Waseta, were to be encamped at Wairope, by the side of the Kumusi River.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxysmal activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Mongi to Agenahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [628] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Wasata, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

721 128 657 Under this heading there are three aspects to consider: the participants, the procedure and attitudes towards the necessity of relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

657 intermediaries between government and people were the village constables. These were definitely not conceived by the government in the role of consultants on matters of policy. They were, however, a crucial link in the chain of command. The government was accustomed to transmit its orders directly to the village constables whose duty it then became to see that the people under their control obeyed the orders. It goes without saying that in this moment of crisis these accustomed methods of communication were followed.

731 The people who came down on the Sangara side were (judging by the ones I interviewed) no longer together in village groups. Some just said they ran to the plantation and then to Cape Killerton, others mentioned a European at the plantation who told them to go to Cape Killerton. A small band of rescue workers entered the devastated area to look for survivors. Of the casualties they carried back, an unknown number died, but 70 were evacuated to hospitals at Lae and Port Moresby. Only three of the evacuees died. (Taylor, 1958: 48.) Other casualties were treated at a field hospital in Popondetta. After the rescue workers had buried those who had died outside the area of devastation, they proceeded to Cape Killerton. The Seva people likewise went there, but a week or so later reappeared at Inonda.

To the West of the mountain, where the casualties were far lighter, the people had a number of alternate courses of action. Data from Sivepe and the Sasembata area show no uniform reaction to the disaster even though village constables continued to exercise authority and village communities were not torn asunder. The Sivepe pattern was probably not untypical.

Here the village constable was not actually in the village at the moment of the eruption. He had gone to Kendata, a village two miles closer to the mountain, to see what was wrong with the mountain. A feast was in progress there, but only the two leaders of the feast were still at Kendata. The rest had become frightened at the smoke from the mountain and escaped to the bush. While the village constable, with four companions, was at Kendata, the mountain blew up. He returned at once to his own village, entering the wrong house because it was too dark to see. When the thunder and lightning were off, he said, he saw white stuff (pumice) on the ground; the roosters started to sing; it was daybreak; the light started again. Many of the people had gone down; he took as many as possible with him to Awala. He arrived at Awala on Sunday night. (It was not Monday night, as a superficial reading of this paragraph might suggest because on that Sunday, the day broke twice, once in the morning, and once in the afternoon when visibility improved by a temporary lull in the emission of ash.)

But not everyone went to Awala; one or two, as at Kendata, had gone to the bush for safety; some old people simply refused to leave the village land and stopped at a hamlet called Kekita,

731 [715] near the boundary of Sivepa gardens. A crippled woman who could not run away described to me how, during the period of darkness, people who had come out of the mountain (i.e., dead people) tried to kill her but did not succeed. On Tuesday, Mr. Kaad went to survey this area, prior to setting up camp at Waseta. Apart from these old people and the crippled woman, he also found that some local people of the Sasembata area, who had fled on the Sunday, had already returned and were milling round their old homes. He told them all to go to the camp at Wairope.

The village constable's story also contained a reference to this meeting with Mr. Kaad, but introduced some of those slight twists or reinterpretation of the facts which are always characteristic of Orokaiva information. According to this story, the village constable met Mr. Kaad at Awala and said to him: "I want my people to go and see their dogs, pigs and chickens." Mr. Kaad then permitted three or four men from each village to go and look and come back again. When the people returned after their period in camp, the animals were still there. The evidence shows plainly that Mr. Kaad had to show a certain firmness to induce all these people to stay away from their villages. Even two days after the eruption they appear to have felt an inclination to return.

One interesting detail of the Sivepa experience was that the old people did not leave their village land at all on the day of the eruption. The Sangara people, who escaped from devastated villages, invariably told me that none of the older people were saved. They gave as the reason that these old people were unable to run fast enough. After obtaining this Sivepa evidence, I reinterviewed one or two of the Sangara people and it would seem that the old felt no real desire to escape from the mountain.

Kaad's arrival seems to have induced the stragglers to move on to Waseta and from there to Wairope. The government's air-dropped supply of emergency rations began to be delivered to Wairope. The centre of this camp was the government rest house, while the refugees began to build shanties for themselves. I collected few data about the Wairope camp because its duration was only a few days. During this time, government and mission personnel began to arrive from Port Moresby via Kokoda, while Mr. Searle continued to do the radio communication work. The camp had to be abandoned a fortnight later because of dangerous flooding of the Kumusi River on whose banks it was lodged. Taylor describes the phenomenon as follows:

> Mudflows, which were a characteristic aftermath of the explosive activity (of the volcano), were a natural consequence of increased run-off from the denuded slopes and of the great abundance of loose fragmental material. The run-off became great rumbling torrents of viscous mud

and assorted debris which periodically descended the watercourses . . . An air inspection of the headwaters of the Kumusi River was made on 8 February, 1951, and the camp was seen to be in an extremely vulnerable position. (Taylor, 1958: 56-57)

The camp was evacuated and a few days later the resthouse was swept. An evacuation camp was established at Ilimo, a few miles West of the Kumusi near the road to Kokoda. This is the camp I shall describe in some detail in subsequent chapters. A photograph taken of Wairopi Camp by Dr. Taylor indicates that much building activity must have been going on during the short tenancy of that camp (Fig. 104). It also shows the torrential flood which necessitated departure.

The camp at Ilimo, to which the displaced communities were now removed, became an interesting experiment in social education and a rather influential one, due to the farsighted leadership of Mr. Kaad. It will be discussed in later sections. The maximum population of this camp was around 2,000 but before the end of February some 500 of these persons had already been permitted to return home. Reappraisal of the danger zone by the vulcanologist led to a redrawing of the boundary, such that areas West of the line drawn from Waseta to Wairopi were resettled; certain groups closely related to the population of the resettled area left the camp to stay with their relations, thus soon reducing camp population to 1,000. Meanwhile, rations were still distributed, as needed, to resettled groups. By the end of May, Ilimo camp was evacuated and resettlement entered a new and more permanent phase.

In this second phase, the boundaries of the danger area were redrawn again closer to the mountain. By this time--though the vulcanologist could not have been sure of this yet--the paroxysmal activity of the mountain had ceased. The areas resettled were all well outside the boundaries of full or partial devastation. The entire road from Popondietta to Ajeka was opened up for unrestricted settlement, and the road from Saiho to Kendata was opened up as far as Kongohambo (just past the Sasembata Mission Station). The areas between these road lines and the mountain were still declared unfit for habitation, though it was recognised that the resettled villagers would use these areas for gardening and hunting.

Before discussing this phase of resettlement further, I should refer to the other fugitives who made their way to Cape Killerton. This site had been chosen because it was clearly outside the danger zone and accessible to ship-borne supplies. On the other hand, there soon proved to be a shortage of drinking water. After a week Cape Killerton was abandoned as a resettlement

731 camp and the population shifted by ship to Oro Bay. Two camps were established in this area: one at Eroro Bay where the Sangara survivors were settled and one at Oro Bay for people who had likewise fled in the direction of the Sangara Plantation but who were not members of the Sangara tribe. Most of these came from farther West and are sometimes referred to as the Isivita people. The Seva people who had gone to Cape Killerton in response to official instructions did not stay at either of these camps but made their way back to Inonda. This was consistent with a general pattern for groups who were offered hospitality by undisturbed villages to be allowed to leave the camps, while continuing to receive such subsistence rations as they needed.

In April, the Oro Bay Camp was emptied out by the device of transporting batches of 35 persons every other day to Cape Killerton, trucking them to Popondetta, flying them to Kokoda and making them walk the 20 miles to Ilimo. The Sangara people were shifted from Eroro Bay to Popondetta, and later settled in a new village site at the boundary of the Sangara tribal domain, at Irihembo. Thus, by the end of May, nobody remained in the evacuation camps, but all the victims had either gone back to their old villages, or been allotted to new resettlement villages, usually along the boundary of the restricted area near the mountain.

What were the attitudes of the Orokaiva towards the necessity of relocating? In order to answer this question we must, first of all, distinguish between the different types of situation baldly sketched in the preceding paragraphs. First, relocation occurred at different points in the history of the volcanic eruption: (a) immediately following the first disastrous explosions; (b) during the two months after the disaster, when paroxysmal activity continued (especially on the 6th and 18th of February and 5th of March) and secondary activity as well as mudflows continued to frighten the people; (c) at a time then the worst manifestations of the anger of Sumbiripa seemed to be past. During the first of these periods, the necessity of government measures do not appear to have been seriously questioned. It must be kept in mind that even in the Western area, where the disaster claimed few lives, the evacuation of the prohibited areas was achieved in a day or so after the government instruction went out, at a time when the government's enforcement powers were minimal.

Sivepe informants, describing the events to me, were very emphatic about the profound fear caused by the eruption. There was little incredulity when the officers of the government told the village constables that further eruptions could be expected. We may safely assume, from our general knowledge of the Orokaiva that if such incredulity had existed, people would not have left their district so easily and the reluctance of the older ones could not so easily have been overcome.

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst suffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data:
657 people argued that the Europeans would not necessarily know what would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between
[823] the camps and the home villages. At Cape Killerton and Oro Bay, the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also
[753] stated in Keesing's report. My informants also ascribed sickness of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the
[164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much
[753] more" frequent than in any camp. It is significant, however,

731 that the Orokaiva explained these cases not by sorcery (as they
[753] regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not
[182] resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

657 The government had long followed a policy of consolidating
361 hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepa many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

On the other hand, there were several factors favouring such
[731] a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

657 either new or of far greater size than before the eruption. Some
361 of these still exist today and still stand out by their unusual
731 size. When one finds a village with a population of over 200, this is almost invariably (I know of no exceptions myself) a village set up near Mount Lamington after the eruption--either immediately after the eruption, such as the present Mamuni, Awala, Soroputa, Agenahambo, Koipa, or set up a few years later, when most of the restricted area near the volcano was made available for settlement, such as Mohorita, Kiorota, Bagavaturu, Kendata (see Table 2). These more recent villages are made up of people who, immediately after the closing down of the evacuation camps, were placed in resettlement villages such as Irihambo, Koipa, Agenahambo, Kongohambo and then resettled again closer to the mountain when this became possible. In all these cases, the unusually large size of the villages is due purely to government action.

The case of Sivepe, though atypical, may illustrate this. Before release from the Ilimo camp, it was arranged that the Sivepe people would be settled at Awala, which was on the main road and at a respectable distance from the mountain. The Awala people agreed to this; the Sivepe people agreed. Thus they went to Awala and the government intended that they should stay there in a large consolidated village. One of the two main clans now making up Sivepe expressed a strong desire to return home and, as Sivepe was outside the restricted area after May, 1951 (the boundary being at Kongohambo), no objection was made but the consolidation of Sivepe with another village was insisted upon. This did not bring Sivepe anywhere near the size of one of the major resettlement villages, but some measure of consolidation was achieved nonetheless. Here we see the operation of several administrative principles. First, we see the pressure towards large villages; Awala has 250 inhabitants even now; if Sivepe and other villages in the vicinity had been added to it, as had been intended, Awala would now have something like 600 inhabitants. On the other hand, Mr. Kaad, who administered this resettlement, evidently did not believe he should exert very strong pressure. He therefore allowed the settlement of Sivepe and several other villages between Sivepe and Awala. The one Sivepe clan which had stayed behind in Awala in 1951, returned to Sivepe a year later.

We may therefore distinguish two types of post-eruption settlements: (1) very large villages created with government encouragement; (2) medium-sized villages (generally still larger than pre-eruption villages) created with government connivance. What were Orokaiva attitudes to the necessity of this kind of relocation? I find this question hard to answer because the term "necessity" (employed in the questionnaire to which this report is the answer) does not fit what I understand to be Orokaiva logic. Settlements such as Irihambo, Awala, Kongohambo were certainly regarded as "necessary" for the mere reason that the government

(or in the case of Irihambo, the Bishop) had decreed them. Had these people been Westerners rather than Orokaiva, they might have asked themselves the question whether the decision of the government to prohibit the Kongohambo people, for instance, to go and live further East in their old villages was a reasonable one. However, there is nothing self-evident in the asking of such a question. Criticism of an administrative decision is, i.e., a calculation of probabilities, fiduciary responsibilities and expediencies. For the Orokaiva, the problem was not whether the government decision was a "necessary" one, but rather: what was the most advantageous action they could themselves take in the circumstances. The advantages of going back to their old village sites were obvious. But these were clearly outweighed by two grave disadvantages: first, the probability of punishment by Australian authorities and secondly, the chance (to which I shall refer in detail later) that the whole eruption might have been a punishment by the Christian God for their earlier disobedience to government and Church demands, and that further disobedience might elicit a further eruption. It seemed foolhardy indeed to challenge both the government and the mountain at the same time. In this sense, we may confidently say that the Orokaiva felt the necessity of relocation.

CHAPTER 2: Physical Environments

Section 1: General Remarks

731 I have shown in the last chapter that the surviving victims of the Mount Lamington disaster were resettled on land they owned (or close to land they owned) prior to the eruption. Thus, resettlement did not lead to a lasting change in physical environment. Certainly, upon their return, the people found their houses beyond repair due to damage done by stones and other volcanic materials; the village grounds were gutted with holes and some trees destroyed. It did not take them longer than a year, however, to build a new village. After the first year, they no longer needed government supplies for subsistence; they were able to plant out their own taro seedlings and re-establish their traditional crops. [121] Nonetheless, certain minor changes in topography and resources occurred at Sivepa, and these must be briefly mentioned.

121 It will also be necessary to refer to differences in physical environment as between the community chosen for special study (Sivepa) and the control community (Inonda). It would undoubtedly have improved my research design if the physical environment in the two villages could have been more or less identical. I should therefore explain why this flaw could not be avoided. Ecologically, certain definite differences exist between land close to the volcano and land on the lowlying flats to the North and East: differences in soil composition, rainfall and population density, to mention only a few basic ones. Though these differences are overshadowed by near-identity in culture and language, they will inevitably intrude in a study as detailed as the present one. It would have been ideal if a control community could have been found which resembled Sivepa in ecology but which had not experienced resettlement. Such villages, however, did not exist, as all the Orokaiva on the slopes of the volcano were evacuated and underwent, in some form or other, the same kind of experiences as Sivepa. Hence, in the present chapter, a comparative study of the ecologies of Sivepa and Inonda must be undertaken.

There is a second question to which brief reference must be made here, namely the effect on physical environments of changes in land utilisation. Throughout this report we shall be comparing conditions at the time of the eruption and the present. In the intervening period, cash cropping has become established among the Orokaiva on a significant scale and other significant cultural changes have taken place. We should therefore inquire what effect

133 Sivepe lies on an altitude of 1,300 feet, seven miles from
[361] Mount Lamington. Although the mountain rises to a height of 5,634
[241] feet, most present settlements are on the lower slopes, rarely very
[731] much higher than Sivepe. A wide range of annual and perennial
[361] crops, including taro, on which the Orokaiva depend, do not grow
well at altitudes much above 1,500 feet. Thus, the eruption has
had no appreciable permanent influence on the location of village
sites. The restricted area is at present a circle of two miles'
radius from the crater of Mount Lamington; there are not now, nor
were there before the eruption, permanent settlements closer than
four miles from the crater.

The Sivepe terrain (if I may borrow the terminology of the CSIRO report) is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepe (see Map III) is on a soil association of the Awala
land system which has an 8 to 12 inch very dark brown topsoil.
Chemical tests suggest that these loams are fertile, rich in
nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil
type, which the Orokaiva call mume (a word whose principal meaning
is night, darkness), is only one of five found in the district and
distinguished by Orokaiva by colour, texture and moisture. The
others are hohori (red), which is popular for cultivation if it is
not sandy; gindiri (stony, with high sand fraction); pugu (clay)
and pegara (swamp). Mume is the most widely used soil for gardens.

133 In contrast, Inonda (see Map [illegible]) is no more than 200 to
300 feet above sea level. It lies partly (to draw on the CSIRO
report again) on the flood plains of the Girua and Sambogo rivers
and partly on the moderately sloping foothills of the northern
side of the extinct [illegible]no-volcanic Hydrographers Range. The
Sambogo and Girua Rivers flow in a northerly direction draining
from the Hydrographers Range and Mount Lamington respectively.
They are swiftly flowing, rocky-bedded rivers which, together with
their numerous tributaries, give the area a moderate to good
drainage system. To the east the drainage system in the vicinity
of the Embi Lakes has been blocked by recent volcanic activity and
drainage is much poorer. A vast coastal plain between 20 and 30
miles wide stretches north-westwards from the Hydrographers for
over 60 miles. Inonda lies at the southern end of this plain,
about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of
five soil associations listed in the CSIRO survey: (1) the
Popondetta Association, with black to very dark topsoil underlain
by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

361 cultivating gardens that are more than a mile or so away from his village.

When Rimoldi made his careful notes of cultivated gardens, 241 these seemed to be predominantly in the Northeastern part of the 311 village domain. These gardens are ordinarily fallowed for eight years or so and then cultivated for one season. The gardens in the Southwestern part of the village domain were undoubtedly being cultivated shortly after the eruption; they are again being cultivated today. It therefore seems to make sense that after the eruption people were living in Pamba, in that part of the domain and that the new Sivepa is again in that area.

● 731 Inonda experienced three shifts since the eruption: first 361 to the vicinity of the airstrip (1951), then to the village described by Crocombe and Hogbin (1955), then to the village where I myself stayed (established 1964; see Map VII).[A] The pre-eruption village was just behind this new village, again suggesting an orderly exploitation of garden land. In 1964, Inonda returned to garden land that had been fallowed since the eruption. People told me that before shifting to the present site, they had to walk much too far to their gardens.

361 While the layout of Pamba was traditional--with the houses 657 close together and little space between the rows--both post-eruption settlements of Sivepa and all the four post-war Inonda settlements followed what one may call the Australian standard plan: two fairly regular parallel rows of equidistant houses facing each other, with a few houses joining the two rows, thus forming a quadrangle, and a wide field in the middle, used for playing soccer and basketball and as a separation of the two "halves" of the village which tend [364] to belong to different clans. A modern village will contain, in addition to residences, privies for each family, while some have [345] built a hall for the women's club, sponsored by the government. Inonda built a very stylish one, using as a floor a slab of concrete [575] which the Americans laid down during the war. Sivepa got no further than the foundations, after which a quarrel blocked progress. In addition all villages contain a number of arara or jataka--covered platforms where men sit and receive visitors. Many villages, including [591] Sivepa, still have a bachelor's house. Typically, each house is occupied by a two-generation family comprising no more than one married couple. A stream is always close to the village.

The change in village layout as between Pamba and the two later Sivepa villages must be discussed in a little more detail as the eruption was clearly influential here. The Australian government has long been concerned about village layouts; this interest went beyond consolidations and included the improvement of housing 657 standards, village sanitation and roads. We find Wilfred Beaver, 364 in the Annual Report for 1914-15, already claiming that he had "insisted on these three essentials in village life," in the

A [See Cat. 116, p. End Map 7--Analyst]

657 three sides of it. (Administration) attempts to introduce such
361 villages in the Higaturu sub-district had largely failed and the standard of housing was much lower. Further, the people of this area tended to live in small clan-hamlets and resisted propaganda for them to come together into larger village groups. After the [731] eruption, however, the general desire for new things, the sense of [784] guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing" (1951: 245).

At the time of Belshaw's research the only resettled areas were those West of the Haseta-Sairope line, and the villages Belshaw visited appear to have been in the Sairope area. As it turned out, the Kokoda village plan was in fact adopted in a great many villages in the Higaturu sub-district, though by no means as an immediate result of any decisions that may have been taken at Ilimo. In the Sivepe area, it seems clear that the people's first plan was to return to Pamba and only when Pamba became uncomfortable, partly through quarrels, partly through damage done by the eruption and partly through administration pressure, did they decide to build a new village in the new style. Within a radius of three miles from Sivepe, there are still a considerable number of old-style villages even today: Hamburata, Carombi, Torogota, to mention only three larger ones. Others, such as Duve and Binduta, were beginning to adopt the new style only around the time of my visit in 1966. In 1951, only those villages in which the government took a strong direct interest, such as Awala, Kongohambo, and the villages visited by Belshaw (but I could not enumerate them all) adopted the Kokoda style.

There is also a minor incompleteness in Belshaw's data when he refers to the neatly clipped grass and the rows of houses as being innovations due to the Kokoda influence. The neatly clipped grass was in evidence in 1906 and the regular rows of houses were reported by F. E. Williams (1930: 68). This was, admittedly, reported as late as the 1920's but the layout is consistent with the less explicit descriptions of Orokaiva villages given by Walker (1901) and by Monckton in his descriptions of his battles with the Dobudura and Sangara. The novelty of the Kokoda plan lies rather in the wide central field, the house design and use of materials, and the sanitation.

Undoubtedly, credit for the introduction of the plan must be given to the Ilimo experience but the spreading of the plan over the majority of Orokaiva villages must rather be ascribed to the growing influence of the Local Government Council in the 1960's.

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

368 The eruption changes the centre of gravity of the district.
731 The pre-eruption settlements of Higaturu and Sangara contained all governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Avala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that would not otherwise have occurred. These outside contacts obviously were among the basic causes of social changes arising out of the eruption. In the present study, it is by no means easy to distinguish between outside contacts which arose out of the eruption, directly or indirectly, and those which existed prior to the eruption or were the result of social changes unconnected with the eruption. But before we can address ourselves to this substantive question, it must first be clear what we shall mean by "outside contacts." The term "outsiders" is used repeatedly in Professor Barnett's specification of the variables to be included in the comparative study. What, exactly, are outsiders? In order to answer this question, I have to offer a few generalizations about Orokaiva social structure for which the documentation cannot be included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as a set of widening concentric circles: family, local clan group, village, the clan within limits of kinship recognition, the consanguineal group within limits of kinship recognition, a group of contiguous friendly villages, the wider set of persons with which an individual entertains institutionalized friendship links, while beyond these limits we may discern even wider circles which become evident in special circumstances. This is an entirely ego-centred model. I saw no evidence of groups of villages which displayed a true corporate unity. Thus village A would have close relations with villages B and C, but village B would not have similarly close bonds with A and C. More likely, villages B and C would treat each other with marked reserve and B would have close relations with A and D; C would have close relations with A and E.

Patrilineages were very shallow in genealogical depth. Though the kinship structure would need to be classified as predominantly patrilineal, I noted a strong consanguineal emphasis. Bonds based on real or fictional siblingship, affinity, matrilineality, institutionalized friendship and--above all--residence and an uninterrupted flow of reciprocal transactions were stronger than all but the closest patrilineal bonds. Though residence was predominantly patri-virilocal, there were many non-agnates in local groups sharing the same clan name; inheritance was not necessarily in the patriline.

628 Kohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepa people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro[A] and Musou, while Ajoro mentioned Inonda and Hohota (see Map VIII).[A]

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepa would be: Sasembata, Garombi, Avala, Hamburata, Korogombata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepa. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepa village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepa informants had first or second degree consanguines in Kongohambo, and only one Sivepa girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages as between 1951 and 1967, the most striking difference is the
● 731 effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
[582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of a range wider than the village were set up under Australian influence.
631 The building and maintaining of the Sasembata mission station, and
731 the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school together, the people worshipped and attended church festivals
[797]

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
development occurring over the years under consideration; it will
731 be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX). It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoge, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
578 village cooperation was a far less significant factor than inter-
village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sengara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
428 inheritable usehold, but should the lineage of the usehold ers die out, the land would revert to the Tandai'undi, as Crocombe and Hogbin point out. Furthermore, should the present occupants decide to settle elsewhere, the land would again revert to Tandai'undi. They have residuary rights and, as Crocombe and Hogbin again point out, they are not alone to have them, for another neighboring group (the Urio people) likewise have residuary rights. In these circumstances it is understandable that, for instance, the people of Inonda would be most concerned if they were forced to settle, even temporarily, away from their own lands.

We find the same pattern in Sivepe. First of all, the blocks of land over which individuals had perpetual useholds contained, in almost every case, some blocks which had not been inherited through the patriline. Secondly, even those blocks which had been so inherited were often held in common with others belonging to a different village and nowadays counting themselves as belonging to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
361 following it, both Sivepe and the closely allied villages were
423 evacuated, and they were together at Ilimo. When the camp was disbanded, a large resettlement village was established in Kongohambo, on land belonging, at least in part, to Sivepe villagers of the Seho clan. Almost 1,000 people were settled there so that garden land in the vicinity of Kongohambo became very highly prized. Meanwhile, the government desired to resettle the Sivepe people in Awala. It seems that the Sivepe people did stay in Awala for three months, after which the Jegase and Timasu clan groups received permission to return to their land in Sivepe. The third Sivepe clan group, Seho, stayed on in Awala, but planted gardens in the Sivepe area.

At this point, the Seho people evidently felt reasonably secure; a year later, however, they joined the other clans in Pamba and together built the new village of Sivepe. When I asked Seho informants why they had returned they told me it was because of fear of losing their land. Now this danger did not come from the other Sivepe clans, who were mostly affines of the Seho people and whose return to their home village evidently caused no great concern to the Seho people in 1951. The danger came from Kongohambo which adjoined the Seho lands. Some Kongohambo people had residual rights over some of this land; if the Seho people did not return, they would undoubtedly have had some trouble in getting it back.

[657] The government, though aware of this possibility, had imagined that Sivepe people would not be too concerned, seeing that they had been offered garden land at Awala. Government reasoning can be traced from the discussions by Nelshaw and Keesing and also from a long memorandum by Plant (see bibliography), a public servant

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Nunani in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside
[578] them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring
[574] villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than
[754] transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garombi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

628 position in the structure: they held, one might say, a dual citizenship: effective citizenship in Sivepa where they lived, and residual citizenship in Soroputa and Agenahambo (in the case of one of them). Other Sivepa men hold a similar kind of residual citizenship in various Isivita villages, e.g., Kiorota, Bagevoturu and others again in Awala, Koropata, etc. The marks of this residual citizenship were in each case: residual land rights (e.g., hunting and fishing rights, rights to the produce of certain trees), regular visiting, clearly traceable kinship links in the [621] patri- or matriline. In inter-village contacts we may therefore distinguish two types of role: the leader and the ambassador. The leader does not directly deal with the leader of another village, except if he happens to have residual citizenship there. Trust can be established only if the approach is made by a residual citizen who, by implication, is offering tangible security (his residual citizenship rights) for the truthfulness of his words and the honesty of his intentions.

It is in the relations with places such as Soroputa and Agenahambo that we can still see the traditional pattern of inter-village relations; within the Sasembata district itself, this pattern has become slightly obscured by the development of new forms of organisation under the influence of mission and government. Nonetheless, even in the type of relations I have just discussed, the pax Australiana has had its influence. If we survey the short list of inter-village linkages between Sivepa and the more distant parts of the Waseta "tribe" (and "more distant" effectively means no more here than over four miles away), we notice that in pre-contact times, wars with Waseta and Isivita were reported. The feast offered to Togahou by Sivepa in 1967 was an unprecedented event; the persons who mediated between the two villages to arrange the feast were descendants of war captives.

628 From the viewpoint of the present study, it is interesting
619 to inquire whether the eruption has had any effects that drew the Waseta "tribe" more closely together. This question is complicated
● [731] by the conflicting descriptions we have of Orokaiva "tribes." A full discussion of the nature of Orokaiva "tribes" would be out of place here. Rimoldi (1966: 29-37) brings forward some strong arguments why a division into tribes, as attempted by Chinnery and Beaver, and Williams, is a hazardous enterprise. I have already stated my own opinion that the Orokaiva view of his social world is a set of concentric circles of increasing radius. Thus, I would agree with Williams that there is an area, comprising several dozen villages, within which an Orokaiva practises what Williams calls "intra-group morality" (1930: 311). Normally these several dozen villages are those immediately surrounding the village of [582] residence. Within this area, marriages are contracted, cannibalistic [721] raids do not occur and fights tend to involve comparatively little [266] bloodshed. The circle of "intra-group morality" varies for every

628 village. Williams, in working out his "Waseta tribe," with Waseta
619 at the centre, excluded the Soroputa people from this "tribe"
(vide Map X). But "intra-group morality" definitely prevailed
[266] between Soroputa and neighboring Sivepa. There never were
cannibalistic raids between these two villages, which included
each other in their "intra-group morality" circle.

It so happens that the people who were brought together at Ilimo consisted preponderantly of members of what Williams called the "Waseta tribe." The only bonds existing between the members of this tribe were the individual kinship and friendship networks and the solidarity of "intra-group morality" circles. The camp was built as a set of separate villages, each under its own village constable, eating and living separately, though more
[572] closely together than formerly. I obtained from a number of Sivepa
men a list of "friends" and inquired into the occasion when the
[582] friendship started; in no case did it start at Ilimo. On the other
hand, the camps led to a number of marriages between people from different villages. This tendency was especially pronounced at Hoborita, which is understandable as so many refugees had lost their families during the eruption. In Sivepa I found one case of a man who married an Agenahambo woman whom he met at Ilimo.

731 If "tribal" solidarity was dubious before the Ilimo camp
628 period, (the atmosphere of an evacuation camp was certainly not
619 a suitable one for developing it. Both Belshaw and Keesing emphasize the anxiety of the inhabitants, their strong desire to return to their home villages, while I have also emphasized their distrust of "others" who might wish to occupy their land; these "others" would inevitably be other members of the Waseta "tribe," although perhaps the Europeans were likewise suspected of predatory aims. (For such suspicion, I do not, however, have evidence.)

A sense of district solidarity did tend to grow up after the eruption, but it can be traced to formal organizations in which Orokaiva occupied roles which brought them into contact with people from other villages. Sometimes these were élite roles, which will be considered below; sometimes they were roles open to anyone, such as that of worker in paid employment, patient in a hospital, pupil in a secondary or advanced primary school, participant in a large-scale public celebration, such as were held in Popondetta and Saiho.

657 The government is actively attempting to create among the
571 Orokaiva larger solidary units than existed in the past. We may thus explain the various attempts that are made to bring Orokaiva people together in the local government council, at numerous sports meetings and celebrations such as at Christmas and New Year, and by any other expedient means. Without the popular acceptance of the local government council the establishing of a land boundary between Sivepa and Soroputa or Agenahambo, to stay with my previous example, would have been hard to imagine. Yet it
A [See Cat. 116, p. End Map 9--Analyst]

659 was accomplished without any European power bearer making his
571 appearance and any sense of compulsion being created--the people clearly considered the boundaries advocated by the government to be in the popular interest. Yet the bonds of solidarity this being formed do not strengthen the unity of the so-called Waseta tribe but the unity of the Higaturu council area as a whole.

628 In this section I have said little about Inonda, because
619 I did not have time to clarify what "tribe" Inonda really belongs.
[114] Williams' tribal map shows Inonda as Sauaha. Crocombe and Hogbin describe Sauaha, quite correctly, as a clan resident near the settlement of Dobuduru (where the people speak a different dialect, presumably that which Williams called Dirou). Clearly, the task of establishing "tribal" units in this district would need to be done again, if it is worth doing at all, which I doubt, for reasons already given.

Section 5: Contacts With Other Orokaiva

628 Generally, contacts outside the "Waseta tribe" are sparse.
[582] During the year, only one visit was made to Sivepa, in a kinship context, by persons from another district. This was a group from
[574] Kokoda, where a Sivepa man married 40 or more years ago, and the visit was from that man's children. Several Sivepa persons quoted as an ancestor a woman from Ajoro, a village close to Inonda. It turned out that all these linkages were due to one single event, namely the capture by the Isivita people of three Ajoro women during a raid. Two of these found their way to Garoubi where they
[424] married; the third woman's son came to live in Sivepa. Descendants of the Sivepa man continue to exercise each year their hunting rights at Ajoro. I could not find other references to ancestors
[572] beyond the "Waseta tribe" apart from these. Some people mentioned a friend, but rarely more than one, who came from another "tribal" district. Often these friends were found during employment, or at the mission school, or they were persons with special roles in mission or government, who had come to the Sasembata district in the course of their jobs. When women had such friends, it was more
[526] often due to a kinship link. An interesting example of the extending of such links under modern conditions occurred when a man from Sasembata village, employed in Kokoda, invited a number of fellow workers to Sasembata for a football game. These men were likewise in Kokoda for employment and came from the Aiga district.

[659] When the members of the "Waseta tribe" were accomodated at
[731] Ilimo, they were not only the guests of the government which
[574] supplied food and other comforts, but also of the people of Ilimo village who had agreed to the camp being established. From the little I could find out about relationships between hosts and

628 guests, it appears that they were friendly but rather formal. As
594 will be shown later, all arrangements in connection with Ilimo
camp were made between the government and the Ilimo people; the
731 Orokaiva had no forms of organisation, in 1951, through which the
[659] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairope, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepa man resident at Ilimo; thus some Sivepa people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepa or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts between villagers, I can give only one clear instance of changing
166 attitudes and this is in Popondetta itself. Popondetta, the new
633 administrative centre of the Northern District, has about 4,000 inhabitants, almost all Orokaiva; among its inhabitants all parts
[162] of the Northern District are represented, including Sivepa. The Sivepa people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other public questions, and develop a wider interpretation of the situation
633 of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepa, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepa, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepa men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepa and Togahou. Hohorita people whom I interviewed explained to me that when they quarrelled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kusmale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government aimed at greatly increasing the number and scope of these roles, both by

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sabire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
657 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
657 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Koipa, Awala, Wasata, Kenguhambo and Hamani. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given [illegible] in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

731 retrospective look at the pre-eruption way of life."

Though most of the contemporary evidence tallies with the accounts of Belshaw and Keesing, I should refer to two documents both [789] dating from 1951 which add some subtleties. The first is a short manuscript by Fred Kleckham, agricultural officer, Popondetta, in which he says that "the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings" (of Orokaiva responsible for the murder of missionaries). I tried unsuccessfully to find Orokaiva who still hold this belief. Mr. Kaad had not heard of it and suggested that as Kleckham was mostly working in the coastal region of the Northern District, he may have heard this interpretation of the eruption in that region. In any case, the explanation is worth noting because, once a disaster has been attributed to the anger of a supernatural agency, the causes of that anger are [illegible] to many plausible surmises.

777 Father Albert McLaren, while at Ilimo, composed two songs one
533 of which is still widely sung among the Orokaiva and even elsewhere, as it is included in a songbook distributed to primary schools in the Territory of Papua.

1

We were at Sangara
gathered together
With all our brothers
Living together

Chorus: Have mercy on them
Lord, we live in your hand

The mountain was made by Thee
It was not seen by us before;
Lord, when it appeared
We were wounded.

Chorus

O Heavenly Father,
Look on Thy servants
Who are in Paradise
In Thy Glory.

Chorus

When the mountain was shaken
They were watching
With their children
And were buried together

Chorus

2

In the land of Sangara
Are the bodies of our brothers
As though they were sleeping
But we shall see them again in the end

Our brothers on earth
Had many temptations
They went up to Heaven
In Thy Glory

The evening was bright
On the hills of Ilimo
But our thoughts
Are always with our brothers

Father Albert described to me his own experiences with the eruption. He lost his own brother who was with the mission, but he was saved because he had been sent to Isivita for the service on the day of the eruption. He was able to escape by running down from Isivita. When he came close to the village of Simboki, the darkness closed in. When the light returned, the clouds were red with flame or fire. When people saw this, he said, they thought the end of the world had come and this cloud was the fire of the Last Judgment that had come to burn them. Nobody knew anything about Higatura being a volcano; or even of the existence of any volcano. They noticed the trees that were blown up, the branches broken down, the little hills of ash covering the valleys and people thought: this is the end of the world.

Father Albert said the Orokaiva did not use to have an idea of the end of the world; it was taught by Christianity. After the disaster, the people discussed it a great deal; through the disaster, God had shown the people just what was meant by the idea of the end of the world. I asked Father Albert whether he regarded the disaster as God's punishment for sins the people had committed, but Father Albert dismissed this idea: he did not think God would punish the innocent along with the guilty. This conversation took place many years after the disaster and can therefore hardly serve to refute the notion that in 1951, the eruption was regarded as divine punishment.

Several government officials charged that the Anglican Bishop actually encouraged people to think that the eruption was a visitation of the wrath of God, as they had not followed the laws of the Church of England. They even add a variety of anecdotes, in which the Bishop threatened that if some demand of his (different in each anecdote) was not met, he would make the mountain erupt again. After meeting Bishop Hand personally, I must confess I am rather sceptical about these stories. The Bishop felt that some Orokaiva believed the eruption was a divine punishment. He stated to me that in his own sermons he

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
[797] especially when they wish to give the impression of being modern and educated. Papuans close to the Mission invariably speak of it as a natural disaster.

A group of elderly people in Sivepa, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepa informants, however, added [797] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called *sisire*. [762] A person who is *sisire* withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel *sisire*, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very *sisire*.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
177 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Honckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

22: Schwimmer E-4,5 (1966-1967) 1969 QJ23 Orokaiva QJ23
Mount Lamington

learning not to openly disobey the new culture heroes, to deal with them gently and cunningly and avoid making them angry. Thus the eruption led to greater circumspection if not contrition. It also led to a sense of deeper involvement with the new age. The immediate consequence was a fashion of modern village building in 1951, as both Belshaw and Kaad have reported. After this rather brief demonstration of respect to the deity, life reverted to its previous style for some years, after which there was a further period of innovation, more soundly based on the development of the Sasembata school, the local government council, the increase of economic opportunities, both in the towns and in cash cropping, and finally on nation-wide political development. The Orokaiva of today definitely sees himself as entering upon a new age, and he views this with optimism and some excitement. The eruption undoubtedly was perceived as a potent sign of the coming of this new age and the danger of resisting it. For this reason, it might theoretically be expected that new ideas would be accepted more eagerly in the resettlement areas than in the less affected areas such as Inonda.

Unfortunately, I find it hard to evaluate the Inonda data. The Christian, cash-cropping families were as concerned to view themselves as living in a new age as were the people of Sivepa. The views of the other families were hard to obtain. Crocombe and Hogbin pointed out correctly that these families explain their non-participation in the coffee scheme by difficulties in their land title. The two authors also characterised the Pagan families as being of "lower status", pointing out that the "higher status" families are (also in neighbouring villages) the most likely to plant cash crops or likely to plant most, (1963: 85) for reasons of prestige. During my own stay, the Pagan families set themselves against participation in the women's club, as they felt it violated traditional custom. I had the impression that there was a status conflict between the factions, as participation in the church, the women's club or any other European activity would have put the resistant faction in a clear position of inferiority, and increased the power of the leader of the other faction who ran all these activities.

Section 11: Acculturation

The contacts and the ideological changes sketched in the previous sections have not led to a basic transformation of the culture. Williams' classical account of the Orokaiva, based on fieldwork conducted in 1923, still corresponds in fundamentals to what can be seen today. In the present section, I shall draw attention to some aspects of the culture that have changed since the eruption, but it should be stressed that, in field observation, they are seen as embedded in a largely traditional culture, with a social organisation, economy,

621 622 625 614 manageable size. Jovareka was definitely not a hereditary leader in Sivepe; in fact, he was not even born there. On the other hand, the two men he saved belonged to the leading family of the Seho clan, which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies [384] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. [191] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I [627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 731 The evacuation camp seems to have placed a heavy burden on the village constables as they were the middlemen between government and the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepe, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] With regard to interpersonal relations, the evacuation set up
[571] a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepe two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepe, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

777 this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the [791] other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

● 731 777 I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Wasata. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

871 731 177 One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not [852] ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

794 When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

CHAPTER IV: Contacts with Congeners

Section 1: Kind and Frequency of Contact

731 628 Because of the circumstances of relocation of the Orokaiva, one cannot generally study relationships between persons who were resettled and persons who stayed in their old locations; the old locations were in general restricted areas which remained uninhabited. For a short period, the population of Sivepa was split into one half resettled on their old lands and one half resettled at Awala. If Awala had offered a viable alternative to residence at Sivepa, an interesting interrelation between the two groups might have developed. As it was, the Soho people who stayed with their clansmen at Awala, established gardens at Sivepa and soon preferred to return. Likewise the Sewa people who escaped to Inanda chose the return to their own lands, even though there was no shortage of land at Inanda. While the Soho clan group stayed at Awala, they made frequent visits to Sivepa, but their children went to school at Awala. Once Old Sivepa was built and gardens were established, the Sivepa people made a large feast for Awala, to express gratitude for the hospitality received. (1954)

Section 2: Encouragement of Contacts

731 654 ? From the first week of evacuation, both government officers and village constables and other community leaders were well aware of the homesickness of the people and their desire to return as often as possible to the villages they had left behind. The camp authorities at Ilimo were only too well aware of the profound shock and despondency of the people and were ready to allow brief expeditions to home villages as long as this could be done without creating fresh conflicts. Hence a policy was developed of permitting return for short visits under supervision of village constables and involving only a limited number of people. Men only were allowed to go home, as the authorities were afraid (not without reason) that if families went back to the villages it would be hard to get them to return to camp out of the restricted areas. In case of further eruptions, the administration of the camps would naturally be blamed. It seems very likely that the initiative for the organising of these expeditions came from the community leaders. Village constables would request permission from Mr. Kaad, mostly because people put pressure on the village constables.

After resettlement in Awala and other villages, the government made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

In earlier chapters, I have already drawn attention to the widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

Naturally, in the circumstances, people did not feel any pride or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepo was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garumbi which still had its pigs. During the bargaining, a Garumbi man taunted Sivepo about its lack of this kind of treasure. The Sivepo people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepo's status in relation to other villages. If Sivepo had not felt secure in its ideology of the "new way," there would have been dismay at Garumbi's taunt about the lack of pigs. But nobody in Sivepo doubted the rightness of the choice that had been made.

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Margaret's Hospital, Eroro (Table 11).A The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, gastro-enteritis, influenza, scabies and other skin diseases are also [146] extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including [753] one in Sivepe during the time of my stay. People are extremely anxious about disease, even mild attacks of influenza or of malarial fever. [754] the cause was always thought to be sorcery.

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation camps, except for infections due to bad water supply at Cape Killerton 731 camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned 731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

A [See Cat. 116, p. 216--Analyst]

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
821 this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

CHAPTER VI: Government Welfare Efforts

Section 1: Relocation Plans and Their Implementation

657 After the second world war, the Australian government became strongly oriented towards economic development of the indigenous population in its Territories. While before the war, the policy emphasis was perhaps more on the maintenance of law and order and the development of expatriate industry, it is after 1946 that we begin to find the active encouragement on a wide scale of co-operative societies, agricultural extension projects, marketing projects, rural progress societies, and later Native Local Government Councils, as well as other political and economic programmes. Even after 1946, progress was slow and in a recent survey, R. S. Parker suggested that "relative inattention to economic development up to 1960 have left a great leeway to be caught up under insistent pressures of time and external change." (1966: 189)

In 1951, shortly after the first eruption of Mount Lamington, the Hon. Paul Hasluck became Minister for Territories in the Australian Cabinet, and Sir Donald Cleland became Administrator of the Territories. One of the chief concerns of the new administration was to increase the scale, the level of technical competence and the concentration of effort in the departments concerned with indigenous development. (Parker. ibid. 195) The relocation policy in the Northern District is more easily understood if it is remembered that in 1951 a new central administration was eager to make rapid strides in economic and social development while the staff establishment and the "basic craftsmanship of the service" (Hasluck quoted in Parker, 1966) was not yet adjusted to these new objectives.

In considering Australian relocation policy, we must therefore keep in mind that there was a disparity between the more sanguine development objectives and the available resources. Furthermore, there was no real consensus in the administration on the scope that [124] should be given to the development objectives. When I interviewed persons concerned with the events of 1951, everyone told me that the establishment of the camps and the resettlement villages was principally a rescue operation, and that wider development objectives were only [731] incidental. On the other hand, it was possible, from published statements by Belshaw, 1951; Keesing, 1953; Plant n.d.; and interviews with Bishop Hand, Mr. F. Kaad and others, to piece together a quite different attitude to the disaster that must have been current in 1951 among high-level development-minded officials. According to this approach, the disaster offered a unique opportunity to try out some

657 731 ideas concerning socio-economic development. It looked in early 1951 as though the evacuees would not be able to go back to their homes for a long time. The vulcanologist had recommended a large restricted area (see Map II),[A] and was doubtful when (if ever) it would be safe again for human habitation. It looked as though thousands would have to be resettled in altogether new surroundings. Such resettlement could only occur under strict government supervision; in these villages it looked as though the government might have the opportunity to introduce a new way of life: model village layouts, cash cropping, improved land tenure, better education, health services, everything in fact that developers still aim at today, except that no plans existed for the setting up of new political institutions.

[177] To what extent were the evacuees involved in plans of this kind? Mr. Kaad often spoke to the evacuees of Ilimo about his ideas concerning development. Belshaw's evidence shows that a number of Orokaiva to whom he talked were eager to embrace a new way of life and, especially, that they were anxious to get better educational facilities. He also detects a strong motive for the Orokaiva to agree to any propositions Mr. Kaad put to them: they hoped that thus they would be allowed to leave the evacuation camp earlier than if they argued back (1951: 246). Mr. Kaad himself expressed to me the view that the evacuation camps were too stressful an environment to be propitious for the teaching of development ideas.

During the time when large-scale development was envisaged, at least three persons of authority and scholarly qualifications were asked the Territory administration for their opinions. Belshaw (1951) advocated a general broadly-based socio-economic development programme, in line with modern theory of applied anthropology, but far beyond the resources and administrative skills of the Territory at that time. Keesing (1953) recognised that the resettlement had been "remarkably effective" as a means of reducing "cultural trauma" caused by the eruption. He further commented: "Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions." Plant, an anthropologically trained administration officer, studied some of the practical consequences a wholesale resettlement policy would have. He worked out an elaborate scheme whereby groups would be resettled in villages where there were local groups with the same clan name--a procedure which the thought would be in line with traditional social organisation--but he also showed that resettlement outside the restricted area, as defined in early 1951, would probably lead to land shortages.

Shortly after these three studies were made, an unexpected event changed the situation. The vulcanologist found that the active, paroxysmal stage of volcanic activity of Mount Lamington had ceased after less than two months and hence, a large part of the restricted area could be resettled long before he had earlier been led to expect.

A [See Cat. 116, pp. End Map 2(A)-End Map 2(B)--Analyst]

657 In March, 1953, he was able to reduce the restricted area still further,
731 to a circle of two miles' radius around the crater. Thus, all areas that had ever been used for the growing of taro and for village sites, became available to the Orokaiva once more. In these circumstances, it was inevitable that the fertile slopes of Mount Lamington were again occupied in much the same way as before the eruption.

As the first chapter of this report deals adequately with the planning and establishment of the evacuation camps themselves, I shall confine myself in this section to resettlement after the period in the camps. The number of places in which groups were settled between the day of the eruption and the present varies somewhat. The Sivepa people all went to Wairopi for a few weeks, then to Ilimo until end May, 1951, then to Awala, where some stayed briefly, others for a year. Since then the present families all stayed at Sivepa. On the other hand, the present population of Hoboritawent to Cape Killerton (one week), Oro Bay (about ten weeks), Popondetta (a short period), Irihambo (almost five years), until they were able to reach their present site. The resettlement history of other villages close to the mountain, such as Kisrota and Ragevaturu was about equally long.

We may generally distinguish two phases of resettlement, following the evacuation camp period. The first phase, occurring around May, 1951, was the transfer of groups from the camps to a number of chosen "resettlement" villages, mostly along the main road from Waseta to Popondetta, but also on sideroads, e.g., Safrope and Kongohambo. This is the phase when an attempt was made to set up model villages of largish size under close government supervision, following discussions at Ilimo when the people concerned had agreed to live together, and to make the innovations. It was no doubt the intention of Mr. Kaad to continue in these villages the educational effort started at Ilimo camp;, and this will be discussed in subsequent sections.

The basic problem, however, was to ensure satisfactory garden lands for the resettled groups. The weakness of the locations chosen by the government was that they were mostly placed along one main road and thus within walking distance of only part of the available garden land. As Plant and Keesing foresaw, it was inevitable that the settlements would split up so as to bring people closer to their garden land. It is mainly for this reason that the Sivepa people did not stay at Awala. Furthermore, the resettlement was based on an analysis by Plant according to which a local clan group could be resettled in any village where there was a group with the same clan name. I shall give only one example of this sort of analysis, to show its effect. There are Jegase clan groups in Sivepa, Binduta, Sui (near Awala) and Isivita. Plant therefore suggested that in the resettlement of Isivita, the Jegase clan group could be shifted to Kongohambo and be given the use of land at Sivepa, Binduta or Sui. Some Isivita evacuees therefore
[423] went to Kongohambo while others went to Koipa. The Jegase of Isivita were thus made to join groups which were themselves already fairly short of land and, in the case of the Jegase of Sivepa, dependent on

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
423 each other's land. They have rights to be protected and succoured as brothers in times of war, starvation or other emergencies, but rights in land cannot be established on that basis.

The government sometimes went to considerable trouble to give supposedly secure land tenure to those who agreed to stay in the resettlement villages. I have already stressed that in such cases one cannot speak of "clan land" being made available to the immigrants, because all Orokaiva land is owned by individual extended families.
[426] In such cases, individuals lend pieces of land to immigrants who are allowed to cultivate them on a year-to-year basis. Their usehold lapses when they leave the community. It goes without saying that where this land is used by the techniques of shifting agriculture, a man cannot depend on the land resources of his new village unless he gets enough land to make about eight gardens in eight successive years. Plant estimated immigrants' needs at five acres per person and this is a good deal of land. I know of several cases where land was lent to people who needed some. The pieces transferred usually measured at the most one or two acres--enough, to be sure, for subsistence over a short term but no more. The effect of this is not to make life in the new village impossible but to hold the immigrant in a position of dependence on landholders. Understandable, the immigrants make every effort, after resettlement, to cultivate their own land, even if it is situated some distance away. Once they begin to do this, the temptation to build a village near their home gardens is very strong. According to Orokaiva ideas, the immigrants lose all rights over land which has been lent to them by their hosts as soon as they stop residing in the village where the land is. Thus, as soon as people decide to leave a resettlement village, they lose any rights in it that their hosts may have given them, if Orokaiva legal principles are followed.

I shall illustrate these principles in one concrete instance, the resettlement village of Mumuni, situated between Sasembata and Wasata, and I shall show how the government attempted to improve the land tenure position of resettled groups. After the eruption, the people of Dapari were persuaded to settle in Mumuni, which was intended
[425] as one of the new style resettlement villages. They were given some
[245] land to cultivate and stayed for several years. When the government began to encourage the planting of coffee trees, the Dapari immigrants
[426] planted coffee gardens at Mumumi. Under Orokaiva law, it is permissible to plant trees on borrowed land provided the owner consents and the
[422] produce from that tree will then always belong to the planter, even when the land as such reverts to the owner. One frequently sees a betelnut palm or a breadfruit tree which is owned by a person who at one time borrowed the land and which is harvested by the planter and left undisturbed by the owner of the land.

657 It is a ticklish question whether this rule similarly applies
731 to coffee trees which differ from the traditional kind of trees in
423 two ways: first, in that they occupy the whole of a piece of land and
245 not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 After planting their coffee at Mumuni, the Dapari people began
731 to depend for their subsistence gardens on land they owned in their
423 own natal district, which was an hour or so from Mumuni. All the
578 Dapari people, except for the Jegase clan group of Dapari, went back
629 to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.
The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
[578 group has solid land rights close to the village. Thus, the resettle-
[628 ment of a group of Garombi people in Sivepe in 1966 may well be stable
because these people own land within a one-mile radius from Sivepe.
But the resettlement of Dapari people in Mumuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Mumuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepe people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Mumuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

657 In the first phase of resettlement, the government took a
731 predominant part. Before evacuees could leave Ilimo, they had to
agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
731 to the scheduled list of resettlement villages branched off to villages
of their own. This process started almost at once and continued for
657 more than five years. I have already stated that in Sivepe this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepe, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,869, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepe could give only limited
help in the way of lending gardening lands and marauding pigs were

another source of annoyance. Some village groups requested permission to move from Koipa and this was granted. A report on the file refers to the clearing of new gardens South of Koipa (end 1956), but in May, 1959, we read that these persons who left Koipa had "over the last 18 months split into two groups one of which settled at Bagevaturu and the other at Kiorota." The villages had been laid out (according to "modern" principles, as I myself observed), gardens and garden houses established, coffee planted. Government supervision over these movements was much less strict than it had been in 1951, though strictly the village sites ought to have been approved before the villages were built.

This second phase of resettlement became possible because the first phase was not accompanied by any renunciation of land rights, or foreclosure of the possibility of return. At no time did the resettled groups give to anyone else a permission to occupy vacated lands nor accept payment for any of their land or its products. After this second resettlement, however, one substantial land tenure problem remained. The nature of this problem is the second lesson to be drawn from the example of Dopari tenure described above. The traditional Orokaiva land tenure system is not well-adapted to cash cropping. The Dapari people are likely to lose their coffee plantations as a result of tenure difficulties. Likewise, Crocombe and Hogbin believe that the failure of several Inonda families to plant coffee is due to tenure difficulties. The Inonda families who did plant coffee were careful not to do so on the extensive land holdings which they inherited from maternal relatives because they feared claims that might otherwise be made by maternal kin. The fact is that a large proportion of Orokaiva land is held on a legal basis much more complex than patrilineal inheritance. When an Orokaiva holds land he has inherited from his father, both he and his father having continuously resided on the land, that man is indisputably the owner and he can grow coffee or rubber on that land without fear of interference. We have already seen that no Inonda land is held in this way. In Sivepe, most men have some land of which they are indisputably the owners, but at the same time most of them also have usefholds over many pieces owned by maternal kin or affines or absent agnates. They are "looking after" this land, and the true owners never trouble them as they either have their own usehold lands in the villages where they live or are working in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepe showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

657 planted coffee on his mother's brother's land. He explained to me
731 that this mother's brother was dead and nobody except himself had
423 any claims on the land. The second man, who had planted on his wife's
245 land, was not so fortunate. His wife's relatives live in Sivepe and lost no time asking for the return of "their" land as soon as the coffee was harvestable. He settled for a compromise: he planted coffee on some of his other land and promised his affines they could have their land back as soon as his new trees began to bear. As far as I could discover, this was agreed to.

423 It has been argued by several students, especially Crocombe and Hogbin, that title improvement is a necessary requirement for the success of cash cropping in the Northern District. My own findings suggest that the importance of title improvement varies a good deal between villages. Where, as in Sivepe, a fair amount of land is held under an undisputed title, no great gain in productivity can be expected from the formal registration of these good titles. In other places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Musuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Musuni is stealing their coffee, could any judicial officer convict any person from Musuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

657 The government made a fresh approach to the problems of indigenous
423 land tenure with the passing of the Land Titles Commission Ordinance 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments. Under these provisions a Land Titles Commissioner has been appointed at Popondetta whose task it is to determine the land titles in specifically designated "adjudication areas." The Commission prepares an adjudication record showing what land in the adjudication area is native land and the ownership of each piece of that land. A native may then apply for registration in his name of any native land included in the record by agreement, but no titles can be registered in a piece of land which is less in either area of frontage than the standard prescribed for the purpose for which the land is likely to be used. In practice, this has meant that every individual holding registered by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hohorita in 1966. Hohorita is a resettlement village harbouring some 12 clans;

657 retained as much land as they had before, after the boundary was cut.
423 They had received some Sivepa land and they had lost an approximately equal amount of their own.

Thus, the lower Sasembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect, [591] of being misled by its own ideological bias. The enthusiasm people felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of [731] a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

Section 2: Economic Assistance

177 Subsistence: Undoubtedly, European contact had a profound influence
433 on the subsistence economy, both through the introduction of steel
tools and of the pax Australiana. The government did not, however,
intervene directly in the operation of the Orokaiva subsistence
economy; it was a very simple economy, but it provided, in general,
adequate nutrition and housing. The first time the Orokaiva subsistence
● 731 economy broke down seriously in the post-contact period was immediately
657 after the eruption of Mount Lamington. The government therefore decided
to offer some limited assistance towards the re-establishment of the
subsistence economy in the resettlement villages built when the
refugees left the evacuation camps. One requirement of the new villages
was a food supply until new gardens had been made and harvested. This
[241] requirement was met by the planting of a quick-growing variety of sweet
potato in villages in the vicinity of Ilimo camp. The government also
bought up any root crops the Orokaiva could supply and distributed
these in the resettlement villages throughout 1951, as needed.

The opportunity offered by the evacuation camps was also taken
731 to introduce a few innovations which, it was thought, would improve
242 subsistence gardening in the resettlement villages. People were taught
the cultivation of the variety of sweet potatoes mentioned above, as
well as of corn, tomatoes and beans. Seeds and plants were supplied.
An agricultural officer demonstrated on a large scale the growing of
[412] sweet potatoes and peanuts. In order to facilitate the rapid establish-
ment of gardens--which the government hoped would be bigger and better
than the pre-eruption ones--small spades were distributed to villages.
These small spades were not a familiar implement to the Orokaiva, but
the agricultural officers thought they would be more efficient than
the wooden implements and large shovels hitherto used in villages.
These small spades cannot have taken on very well; I saw none in Sivepa
or Inonda. I myself had brought a spade for the garden I established
in Sivepa, but my neighbour, upon seeing it, at once supplied me with a
grubber (ex-American army stock). A very brief acquaintance with the
root structure of the garden weeds convinced me that a spade was indeed
[227] of limited utility. Finally, in order to add to the supply of protein
in the resettlement villages, the camp superintendent distributed some
snorkels for catching fish.

Keesing reports there were fears in the camp that the eruption
731 would have destroyed taro seed stock, but this fear proved unfounded.
134 The taro plants remained perfectly healthy and the volcanic ash made
the soil amazingly fertile for awhile, so that food shortages were
quickly relieved.

Issue of Food: In the camps, rice, tinned meat, tobacco were distributed
731 according to a ration scheme based on the census figures. Each village
657 constable was issued with rations for the number of people resident in
the villages under his control. These distributions were continued in

731 the resettlement villages as needed, but soon replaced by issues of
657 the sweet potatoes and later, village-grown crops. Distributions tapered off after May, 1951, and ceased at the end of that year.
Commercial Enterprises: Agricultural activities are the only kind of enterprise which are encouraged or assisted by government. These activities are mostly conducted by individual entrepreneurs. No rewards are ever given for land clearing, nor are any labour costs ever paid. The government assists by providing coffee, rubber and cocoa seeds to growers. Initially these were free; nowadays, growers are charged the cost of seed.

Although there is provision in the Territory for credit assistance
452 for economic development, small growers of cash crops such as are
657 found in Sivepa and Inonda are not eligible for this credit. A short time before I left, one man from Inonda (again the government driver) was encouraged to apply for a loan under a new experimental scheme for beef cattle farming, but the arrangements were not complete when I left.

The government provides marketing assistance to New Guinea
245 growers of coffee (mainly indigenous) by a remission of duty on raw
652 coffee imported into Australia from sources other than Papua and New Guinea to each importer who obtains a certain percentage of his total
245 requirements from the Territory. The government does not itself purchase coffee but when the Higaturu Local Government Council was
474 formed one of its initial functions was to operate a cooperative for the purchase, processing and exporting of locally grown coffee. Later
[691] (in 1962), the Council withdrew from this activity and an independent Orokaiva Coffee Growers Society was formed. The reason for the Council's withdrawal was advice from the government which felt uneasy about local bodies engaging in comerical activities. The effect of the setting up of the cooperative has been that service is now no longer given to all growers but to all who have bought shares as an entrance fee and become members of the cooperative. This fee was initially $4 but is constantly rising until in 1966 it reached $20. Some non-members sold
[439] their coffee to the Chinese for a lower price; others sold through kinsmen who were members, and did not always receive the full proceeds. The government keeps an eye on the operations of the cooperative; in any case, it seemed well enough conducted. Until end 1966, the cooperative depended on the government for transport: the buyer who visited villages each month to collect and pay for the coffee travelled on a government truck. It is now buying trucks of its own. The nearest pick-up point for Sivepa coffee was Garombi, one mile away; the nearest pick-up point for Inonda coffee was likewise one mile away, at Ajoro.

The government also assists agriculture through its research
654 activities conducted in various experimental stations in the Territory
242 which specialise in rubber, coffee and other relevant crops. A resources survey has been made of large parts of the Northern District, including the Oro-Bay--Kumusi River region with which we are concerned here. A programme for the improvement of Robusta coffee is on the way,

755 medicine, though by no means always. Bandages were especially popular;
752 they were worn as status symbols and as dancing ornaments. Nurses and
physicians are regarded with affection; any person who obviously wants
654 to be helpful would be treated thus, and it has of course been noticed
that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a
public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
[146] at Ilimo, by means of distribution of sample tubers and seeds and the
teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepe, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepe was the health
inspector employed by the Higaturu Council. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Garoubi and he had many relatives
in Sivepe, he made frequent visits. Sivepe caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a lavatory and the place was kept clean in the prescribed way. On

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 The mission at Sasembata formed a kind of community of its own.
361 From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

875 It was traditional for villagers also to supply teachers with
425 land for growing taro. At Sasembata, the mission found it hard to
797 get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely
● [731] Papuan. The eruption led to no defection but to a strengthening of
[784] the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 .G323 Orokaiva G323
Mount Lamington

CHAPTER VIII: Selection of Emigrants

At the time of the eruption, the whole of the population fled
● 731 from the volcano; those who wished to stay behind were persuaded to leave by village constables when the area surrounding the mountain was declared "restricted" by regulation. The whole of this population, of the affected villages was placed in evacuation camps and, in general, it was again the total population of the pre-eruption villages that was transferred to the resettlement villages established in and after May, 1951.

Recruitment to these villages was therefore non-selective and
621 by government order. The amount of land available at the new location
657 and the clan affiliation of the groups relocated were the main criterion in allocating particular groups to specific resettlement villages. The allocation was done by a government officer who took into account the preferences expressed by community leaders as between the alternative resettlement villages available. It is hard to say at this stage just how much self-selection occurred, but the evidence suggests that in 1951 there was a very limited amount of self-selection. The situation in the camps was a very disturbed one. Undoubtedly, when two groups joined together and told Mr. Kaad that they wished to form a village together, Mr. Kaad would agree to this, but a heavy burden of decision fell on the government. After 1951, a good number of relocated groups founded new resettlement villages, mostly with prior government permission. In these later settlements, self-selection played an important part.

When self-selection of resettlement sites occurred, the following
36] were among the reasons for choice, as is demonstrated from evidence at
[628] Sivepe and Hohorita: proximity to land to which the group has good title; greatest possible distance from hostile groups from which aggression and sorcery may be feared; closeness to groups with which a historical connection exists. The Hohorita people, though from a wide range of clans, all have their origin in a fairly compact cluster of Sangara villages. This has kept them together as a reasonably solidary village. In Sivepe, we witnessed the exodus from Awala, because of land problems; the exodus from Pamba, because of troubles with neighbouring Kongohambo, to a place one mile removed; and more recently, the exodus of small groups from Binduta and Garombi, in both cases on the basis of historical affiliation. In the case of the Binduta families, this was an agnatic or clan linkage; in the case of Garombi, the links are far more complex and will be discussed under the heading of "Internal Influences."

The village group was the organisational unit of settlement.
621 No larger cohesive group exists among the Orokaiva, though some resettlement village groups were much larger than pre-eruption ones.

361 bende--"side" of a village. The term da is applied to the total set
621 of houses built in a single jungle clearing. The layout of a da
usually resembles that given in Maps V-VIII.A There is an empty space
in the centre, which is faced by houses, usually arranged in something
[364] like parallel rows. The centre is called aroha. In the traditional
village there is an area, immediately surrounding the da which is
given over to sorcery and where the rubbish is thrown. This is called
isepa, a word also meaning "small" and it is indeed only a narrow
strip, outside which the village gardens begin. The word da is applied
equally to a large village and to a settlement of two or three houses,
as long as it has the features mentioned. The house or bende, if it
is a permanent dwelling, is part of a da and mostly is placed on one
of the two sides or rows (bende), though as the village plans show,
houses are also built to complete the rectangle.

The ridgepole of a house tends to be erected along the line
361 made by the row or bende. The floor plan is rectangular, as shown in
342 Diagram XII.B The long side of the rectangle faces the aroha and the
door is usually in front in the centre. The house tends to be divided
into two halves, a front half and a back half, the division being a
wall built directly below the ridgepole. The front half tends to be
a space where people sit and talk and where visitors come in the
evenings, while the back half, containing the sleeping rooms, is
rather more private and not usually for visitors. The back portion is
often divided into two separate rooms. I have already referred briefly
to some buildings that are not residences: the small ceremonial meeting
places that are called arara in Sivepa, jataka in Hohorita or by either
name in Inonda; the lavatories, the chickencoops (very often, indeed,
the same structure); the feasthouses and visitors' sun shelters, which
are temporary; and the women's club houses which are a novelty. None
of these are usually placed in the regular rows, though sometimes
meeting places are built next to the house of the owner.

Villages are rather compact, the houses being built at a
361 distance of nine yards, and this distance is precisely measured in the
[197] Australian spirit of military regularity. Everyone is always within
easy shouting distance of everyone else; nothing in the village goes
unheard, unobserved. The two "sides" are under constant observation
of one another. Movement between the houses of one side is much less
conspicuous, however, than the act of crossing the aroha to go to
the other side. One never does this unless one has a serious reason.
Movement between houses of the same side occurs continuously for
ordinary gossip.

Inonda formed one da after some battles early in the century
361 (Crocombe and Hogbin, 1963: 14-15); at the time of the eruption there
● 731 was one da with 48 people and the village stayed together, with a slight
628 decline in population (to 45 in 1962 and 41 in 1967) and a decline in
the number of houses from 12 in 1950 to eight in 1962 and seven in
1967. When the Sewa people joined Inonda after the eruption, they did
not actually, according to informants, live in the same village as the

A [See Cat. 116, pp. End Map 5-End Map 7--Analyst]
B [See Cat. 116, pp. End Map 11(A)-End Map 11(B)--Analyst]

Inonda people. They built a da of their own at a very short distance from Inonda; both these da were very close to the airstrip and abandoned now. Although these two da were less than a hundred yeards apart, they were still two socially distinct units. It sometimes happens, as in the case of Hohovita, to which I shall return, that two such contiguous villages are later joined together into a single one, but this is a deliberate act, involving the slashing down of the intervening brushwood and, ideally, also the removal of houses which would run through the centre of the combined village. If Sova people had taken up permanent residence in Inonda, such fusion would have occurred, no doubt, but instead they went back to their own land.

Sivepe, with its present composition, goes back in time no further than about 1948 when the village Pamba was built, combining an older Sive and a new defunct village Pusahambo. The census list current at the time of the eruption still shows the population of the two villages separately, though in fact they had already fused. (Sive 58, Pusahambo 41) I do not know how many residential units there were then, but in Old Sivepe, in 1962, 23 were counted, plus one belonging to the anthropologist. At that time, the population was 120. When I arrived in Sivepe, the new village was only partly completed. Some people lived in new houses; some had not yet built or finished their new houses, but had shifted their old houses from the old to the new village. Others again were still domiciled in the old village, but had declared their intention to start building in the new one "soon." At the time of my arrival, six of the houses in the old village were still inhabited; nine months later, this number had dropped to three, two of the houses being inhabited by widows living alone, while the head of the sole remaining family had almost completed his house in the new village. At the time of my arrival, a good number of the village pigs were still being kept in the old village (these animals being rigorously barred from the new one) but by the end of my stay, these pigs had all gone to the bush. New Sivepe, at that time, had 25 dwelling units, plus the one rapidly nearing completion. The total number of dwelling units included in the study (28) accommodated 137 people. There was occasional discussion of further increments in the population, as families from Garombi were considering moving in and would have been welcomed.

At no time since the eruption did Sivepe exhibit rigorously the village plan that was regarded as ideal. In Old Sivepe 18 out of 23 houses were arranged around the araha in standard fashion, while another five houses had been built outside the village proper, along the old jeep road, separated from the rest of the village by a gully. The land on which Old Sivepe was built was lent by three individuals from different kinship groups; residents chose their house site irrespective of their possible ownership of land on the village site. On the other hand, the five houses built outside the village proper were all on land owned by the residents. Though some of these houses were as much as four chains away from the village proper, they were still

614 affiliations has changed. In 1962, when Rimoldi did his survey of the
621 community, not a single Sorovi family had arrived. Moreover, he showed four residences and one bachelor's house as attached to the Timumu clan, a clan name that was not quoted to me. The same families still inhabit Sivepe (except for one old man who died) but they now call themselves Jegase. (This fusion between Jegase and Timumu occurred, to my knowledge, only between the Sivepe local clan groups.) In 1962, Jegase had eight residences and one bachelor's house, so that the overall pattern in these four years has remained much the same except for the fusion of the clans. Bachelors of the enlarged Jegase clan shared one bachelors' house in 1967, seeing that the clans had
●[731] been joined. The major change between the time of the eruption and 1962 was the migration of three families from Binduta to Sivepe, all classified as Jegase in 1962. Just as it was possible to change the clan name of the entire Timumu group by a simple decision of the two local clan groups, so also it was possible to change the clan name of individuals simply as a way of emphasising common loyalties which developed out of a combination of cognatic links and contingent circumstances. (This pattern is characteristic of New Guinea patrilineal clans in many areas and has been discussed recently in an excellent paper by J. A. Barnes, 1967.)

361 One striking characteristic of the village layout of New Sivepe
614 is that all the Seho houses are grouped together on the same banda
616 while the other banda of the main village is entirely made up of Jegase houses. Sorovi, the clan which migrated to Sivepe from Garombi shortly before my arrival, has mainly settled along the brow of the hill behind the village, probably partly because that area happens to be owned by a Sorovi man (who continued to live in Garombi), so that in case of a quarrel, nobody could question their right to build on that land. The other houses on the brow of the hill were built by Jegase people who preferred to keep out of the regular two-line system. People often talked about their intention to build all the houses along the two regular lines eventually.

The basic structural feature of New Sivepe was this dualism, expressed in the division between two "sides" each comprising one clan. This kind of village plan has been studied in much detail by Lévi-Strauss
[582] under the term "diametric structure" (1958: 150). An essential part of this structure is that each side is exogamous but that the two
[601] sides intermarry with one another. It is thus in Sivepe where people living along the same side address each other always by consanguineal kin terms whereas people living on the opposite side tend to be addressed by affinal terms, with the obvious exceptions. The reserve and formality observed when people cross the araba to go to the other side is easily explained when it is remembered that on the other side they will meet affines.

It will be noted that this pattern is very much less clearly discernible in Old Sivepe where the two-clan system was not yet worked out. On the other hand, I have found it in several other resettlement

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

I have not yet referred to the deepest acculturative influence 657 that was absorbed before the time of the eruption, namely the abolition 177 of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [464] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

● [731] Developments since 1951 provided increasing opportunities for gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.

CHAPTER V: Familiarity with New Homeland

648 In spite of the pax Australiana, Orokaiva still view with some apprehension visits to villages of traditional enemies, if friendship has not been explicitly established between visitors and host village. In 1951, this feeling of apprehension was even stronger than today. I [609] was told that in pre-contact times a man would be extremely rash to visit a village where he was unknown as he might well be killed. Even then, however, it was sufficient protection if a visitor was able to ask by name for a kinsman or friend resident in that village. This person would then take the visitor under his protection and he would come to no harm in the host village.

648 A story about a football match held in Sangara shortly before the eruption demonstrates the dangers that existed even then. A 721 Sangara team had visited a village in the Gona district and had defeated its hosts at football. On the way back home, a member of the team fell ill and died from blood poisoning. The Sangara people attributed the death to sorcery by the defeated village. When shortly afterwards this village visited Sangara to play the return match, the Sangara came to the football field armed with hidden knives, guns and pineapple clubs, intending to kill their guests. A bloodbath was avoided only by a thunderstorm during which the match was cancelled.

731 In these circumstances, it is understandable that the Sangara 609 and Isivita people were unhappy about their evacuation to camps in the coastal region after the eruption. It was not, of course, the specific instance just quoted that made them uneasy but a general apprehension of danger. Certainly, deaths and illness occurring in these camps were very liable to be ascribed to sorcery. This is no doubt one reason why the government lost no time in closing the coastal camps down and bringing the inhabitants back inland, placing them in temporary accommodation in Popondetta end April, even before permanent resettlement villages for Sangara could be planned.

648 The camp at Ilimo did not create the same kind of worry, as Orokaiva has no reason to fear sorcery on the part of the Ilimo people. The Sivepe people feared no harm from Ilimo because two Sivepe families had friendly and kinship relations there, while there was no history of hostility between the two places. Ilimo, furthermore, was near some European plantations where people of Sasembata district at times found employment. While the Sivepe people were in the camp, they were on visiting terms with the village people. It is important to realise that the pivot of the friendly relations between these two villages were a small number of individuals who were linked by formal bonds. Of the two bonds, one was affinal while the other was a friendship bond based on contact between a Sivepe plantation worker and Ilimo village people.

659 such as his threat to chain some recalcitants to corpses they had
177 refused to bury, never entered his official despatches; other exploits led to a series of inquiries and finally to his being edged out of the service.

While Monckton's methods were never practised again by senior officers in the Northern District, the tendency for the field men to become involved with Orokaiva ways of thought and thus incur the displeasure of Port Moresby has persisted. The Higaturu Council's land registration scheme, dreamed up by Popondetta public servants, is a case of that tendency. In this case land title deeds were issued which had no validity in law but which the district commissioner would protect with his strong right arm, much as Monckton would have done most efficiently. The arrangement was repudiated by higher authority in Port Moresby. Very often relationships between white employers and Orokaiva exist on two levels: an official level where wages are paid for work done and an unofficial level where the Orokaiva receives some small extra gifts and rewards his employer with some special loyalty. These "buckshees" are a regular pattern for which some allowance is made when calculating labour costs.

657 A second and completely different type of expatriate was Mr.
731 Kaad, who was in charge of the Ilimo evacuation camp. He neither relied on threats of dire punishment nor on the Orokaiva system of exchange bargaining. He came to the Territory in 1942 with the Army and stayed to become a patrol officer. He was soon seconded with the
[466] Department of Labour. It became his task to educate expatriate employers whose methods of treating their labour conflicted with the government's plan of improving relations between Australia and the Papuans. In particular his task was to advocate better methods of labour control than corporal punishment which had been extremely prevalent. Orokaiva informants told me that in fact corporal punishment on plantations ceased after the second world war. Mr. Kaad later became an Assistant District Officer. At the time of the eruption he had just come back from leave to move to a new post, when he was chosen for the delicate job of looking after the evacuation camp.

His task at Ilimo, as he saw it, was to help the recovery of people who "had their world shattered." He was greatly in sympathy with the new policy of promoting Papuan economic development and tried hard to make the resettlement villages he set up into foci for development. At the same time he was always flexible and ready to place the interests of recovery from shock above the interests of reorganisation. Shortly after, he was crippled in an accident. In 1967, he was teaching at the School for Pacific Administration in Sydney, training future generations of patrol officers in techniques of social and economic development which he practised before he knew them theoretically.

659 Most of the other expatriates who had dealings with Sivepe and
177 Inonda moved quickly into anonymity. The roles played by a succession of government and mission servants were undoubtedly key roles, but their contact with the particular villages was too casual for their

CHAPTER X: Esprit de Corps

621 731 The problem of developing group consciousness in a new village, created by aggregating the population from several villages in one place, is a very considerable one under Orokaiva conditions. Each village group tends to be a tight unit and it is a long time before a feeling of unity will develop between the groups thus thrown together. In a place such as Hohorita, which consists of the remnants of about 12 villages, the creation of an esprit de corps (in Linton's sense, 1936: 92-94) is a lengthy and hazardous business.

I was able to observe the same situation in Sivepa in 1966, though on a much smaller scale. Sivepa, as I mentioned before, consisted of a core of people who lived in Pamba before the eruption and two groups who arrived since, one from Binduta in 1956 and one from Garombi in 1966. The extent to which these groups have been "integrated" into the village will appear at once if one looks at the spatial [361] arrangement of the village. As I pointed out, the ideal plan of this village was an arrangement of two parallel facing rows. Now all the long-established families, with one exception, followed this plan, but none of the new arrivals did. The Garombi arrivals built on a piece of land just above the village, on land owned by a Sorovi man who stayed behind in Garombi. The Binduta arrivals built next to the Garombi ones, on attractive sites overlooking the rest of the village. None of them followed the house plan decided upon by the rest. Thus they gave all the appearance of a group apart, and the symbolic significance of such behaviour would never be lost upon the Orokaiva. When asked about this arrangement, people would describe it to me as temporary.

621 In the daily presentations of food between residences, these [431] families would most often send food to one another, rather than to other families in the village, but this was natural, as their own mutual ties were closest. At the same time, I recorded a reasonable number of gifts travelling from the top of the hill down to the village and conversely; there was certainly no rigid separation there. A number of kinship and friendship ties existed between the new arrivals and the older families; these ties were fostered by regular exchange [578] presentations of one sort or another. I have referred to one conflict between a Garombi arrival and a woman from the centre of the village. This was an isolated case, as there was no sign of conflict between the groups, nor did this flare-up lead to continued bad relations. One could say that an esprit de corps was gradually forming, and that the merger looked satisfactory.

621 On the other hand, the hazards were obvious when one looked 684 at the settlers from Binduta. When conflict developed, as in the attempted rape case, the man from Binduta was in a weak position.

CHAPTER XI: Epilogue--The Case of Hohorita

Section 1: Comparison Between Resettlement of Sivepe and Hohorita

731 123 My subject of study obliged me, both in Sivepe and Inonda, to inquire repeatedly into the state of affairs in 1951. My informants showed only limited interest in this line of inquiry. Robert, in Sivepe, even began to tease me by composing a song about what he considered to be an oddity of mine; every second line in this song (which he improvised as we walked along the road) began with the words "iji tiri pajetei" (the time when the volcano blew up)--I knew that from that time onwards I could never use this phrase without looking a little ridiculous. Such levity would have been unthinkable in Hohorita. For most Hohorita people, the time of the eruption marked the death of some, or many, of their closest relatives.

731 [165] In the files of the Department of District Administration I saw the official estimate of indigenous casualties in the eruption (Table 1).[A] The toll of the dead from the Sangara tribe was evidently established by taking the total resident population of the Sangara group of villages (1964) and subtracting from that total, 170 known Sangara survivors. To these figures, 800 "Andemba dead" must be added as these were also Sangara. According to these figures, 94% of all Sangara died in the eruption. I have already pointed out that most of the survivors either came from villages lying at the boundary of the devastation area or happened to be away from home when the disaster occurred. They escaped to Cape Killerton, were placed in an evacuation camp at Oro Bay, shifted to Popondetta and in May, 1951, were able to settle at the Northern edge of Sangara territory, in a village called Irihambo where they found themselves under the close personal care of Bishop Hand who encouraged them to build a fine new church. The Bishop's purpose, as he explained to me, was to give this minute remnant of the powerful Sangara tribe a sense of community, some hope in life. [621] It was the people who chose the site for the village; the Bishop hoped [361] that later on, it could become a centre for cocoa production as climate and soil suits this crop very well. At that time, neither the people [425] nor the government seemed aware that the land occupied by the Sangara was no longer in law their property.

425 657 The whole block North of Irihambo as well as East of it had been bought by the Crown around 1910, with the intention of encouraging sugar plantations there, but this plan was stopped by sugar interests in Australia. In the middle 1950's, a new plan arose to use this extremely fertile area for cocoa plantations. Most of it was settled in 1959 by Australian ex-servicemen, financed by a Credit Board (Howlett, 1965). As this plan was in its initial stages, it was discovered that the Sangara people were on the land and, in law, were

A [See Cat. 116, p. 205--Analyst]

425 trespassing there. Bishop David recalled, in my interview with him,
65] how amazed the people were that the land was no longer theirs: "What
is this business of our land being sold? Our fathers sold it; we
should be able to get it back." In spite of the Bishop's protests,
[36] the people had to leave their new village. They then moved about two
miles closer to the mountain and to the centre of their traditional
land holdings and chose the site of Hohorita. (The Irihambo village
used not only Crown land but also the land of a planter, Mr. C. E.
Searle, who tells me he never objected to the presence of the village.
The situation is illustrated on Map XIII.)

The shift from Irihambo was a gradual process, during which
36] several groups set up new villages independently. Today, the population
65] of Irihambo is dispersed over six locations: first, two large villages,
one behind the other, which have now virtually fused into one and
together are known as Hohorita; immediately to the side of this, a
mission station, with a church built of bush materials, similar to the
one at Sasembata, but not of the superior standard achieved at Irihambo;
finally three smaller breakaway villages, called Sombou, Kakita and--
again--Irihambo. Though Hohorita people today are not ready to admit
it, they must have been very angry when they were told their Irihambo
land was to be occupied by white ex-servicemen. They pulled down the
beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council,
Hohorita nonetheless gradually assumed the character of the other
modern resettlement villages; by June, 1967, the biggest of the breakaway
groups had joined the main village, which no longer looked like two
separate units but had been spatially integrated; the houses were
being aligned and modernised; in other more fundamental respects the
[177] Sangara people had become rather rapidly acculturated. By the criteria
used in the present study, acculturation had progressed rather more
[731] rapidly than at Sivepe, though also more unevenly. In many respects,
Hohorita had more difficult problems to surmount than Sivepe: the
death toll had left the tribe virtually leaderless; the resettlement
village was made up of the survivors of a dozen villages or more, which
made it rather heterogeneous; land titles were far more confused than
before the eruption; the establishment of an esprit de corps required
the forgetting of deep traditional intervillage antagonisms; a deep
sense of insecurity had been caused, first by the disaster and the
deaths and later, probably, to some extent by the failure of settlement
at Irihambo.

It was the general hypothesis of this comparative study of ten
73] displaced communities in the Pacific that displacement would lead to
177] accelerated culture change in some directions. This hypothesis was
tested by using, in each case, a control community, similar to the
[121] relocated community but lacking the experience of relocation. In the
case analysed in the present report, the experience of displacement at
Sivepe was comparatively mild in that the people soon returned to their
traditional land holdings and formed a village identical in personnel
A [See Cat. 116, p. End Map 12--Analyst]

731 to the pre-eruption village. Furthermore, the control community
177 differed in minor ways from Sivepe both in ecology and in traditional social structure. Certainly this report has pinpointed a number of differences in the acculturation history of Inonda and Sivepe; it has probably been rather less successful in determining whether these differences are due to the displacement experience (and subsequent government and mission initiatives) or to the ecological and cultural differences which existed between the two communities at the time of the eruption, and which were further accentuated when Popondetta became the administrative centre, thus placing Inonda appreciably closer to the centre than Sivepe.

121 I made a study of Hohorita because I felt it would perhaps provide more cogent evidence. Here resettlement followed a cataclysm during which over 90% of the population died; furthermore, the ecology and culture of Sangara was very close indeed to that of Sivepe. I was struck, during my study of Hohorita, by the evidence of far more rapid acculturational changes than I found at Sivepe. Hohorita, to put it briefly, produced more intellectuals and also more coffee than other communities that had been less afflicted. This seems to suggest I might have done better to take Sivepe and Hohorita as my sample communities, as I would have been able to show more striking differences in spite of greater ecological and cultural similarities. I rejected this idea because my study would then have been methodologically anomalous in the framework of the total project in which the nine other investigators had used a different research strategy.

Nonetheless, the study of Hohorita is of very special anthropological importance as it shows strikingly how a primitive community reacts and adjusts to a cataclysm. The fact that the presence of the Australian government and mission provided the community with some additional adjustment opportunities hardly detracts from the interest of the case. It is impossible to do justice to the subject in this epilogue. Not only would this take too much space, but the time pressure under which this report is compiled also makes it impossible. As Hohorita has a population of 348, the genealogies, lists of educational, occupational, residential data, the statistical evidence of the inter-village relationships are all most complex and will need to be analysed out of 650 pages of field notes. These notes are at present no more than lists of names related to individual families. All I can do here is to give my own preliminary impressions of the material, coupled with general descriptive data. Nonetheless, I hope that I can thus show some of my findings from Sivepe in a broader setting and draw attention to a few basic issues.

Section 2: Physical Environment

131 The present territory of Hohorita stretches from near Mount
133 Lamington (an elevation about equal to that of Sivepe) down to Double Crossing, which is about 600 feet above sea level. Rainfall at the top of the territory may be close to that of Sivepe, but further down
132 it decreases--though I doubt whether it would fall much below 150 inches per year anywhere on Sangara territory. The land yielded much the same
361 wild and cultivated crops as in Sivepe. Before the eruption, the concentration of population was entirely at the higher reaches of this territory, while the lower parts were used for hunting and other subsidiary activities. Those who survived the eruption because they were away from their villages were often hunting on this lower land. Today, the pattern of occupation has shifted. The lower part of the territory, near the new villages, is intensively used while the more elevated land is used a little less and often for coffee rather than subsistence crops.

● 731 The eruption has made minor changes to land contours: due to the floods, the watershed of the Ambogo River was gouged out forming a number of pools of stagnant water which formed a breeding ground for mosquitoes and leeches. These pests are blamed on the eruption by the local people. On the credit side, certain varieties of bananas and pumpkins, planted before the eruption, had the opportunity to grow wild during the year the land was unoccupied and are now thought of as having been brought to the district by the eruption.

162 The total Sangara population today would be about 472--of which
161 350 live in Hohorita and the rest in the three other villages. The total land holdings of this population extend over 3.5 square miles--an average of about 135 per square mile. This places the Sangara in a somewhat superior economic position to Sivepe, which has to support at least 180 persons per square mile on land of the same quality. It must be remembered that prior to the eruption, the Sangara population was six times as large as it is today--so that Sangara must have suffered a chronic land shortage. All the neighbours of the Sangara are agreed that they were very warlike and dangerous enemies; they probably were in frequent need of extra gardening land. Today, they have enough land not only for subsistence gardening but also for a somewhat larger cash-cropping programme than is generally found in the Sasembata district.

621 The present site of Hohorita (see Map XIV)[4] developed in several
361 stages. First the Horeopa clan, which had the greatest number of survivors and therefore achieved dominance, shifted to the front part of Hohorita village in 1956. The mission station was established next to the village, separated from the village by a small stream. By 1958, all the Horeopa were settled in houses in the new village, together with the Oripa clan whom they had asked to join them while all the other inhabitants of Irihambo had shifted to the new mission
A [See Cat. 116, p. End Map 13--Analyst]

Section 3: Social Environment

619 In discussing the Waseta "tribe" I suggested that its boundaries would be hard to establish and that it gave little evidence of any [197] sense of unity. The case of Sangara is somewhat different; first of all, Sangara speaks a dialect of its own that is easily distinguishable from that of other areas. Secondly, a Sangara man is able, if he is knowledgeable enough, to list some 27 villages which formed a loose military alliance, and between which raids and organised ward did not [582] occur. These 27 villages formed at the same time an area within which intermarriage would regularly occur. The present population of Hoborita and the adjunct villages is drawn entirely from this alliance. (The number 27 is probably an underestimate.)

621 Since the government made Sangara the centre of the Northern District immediately after the war, patrols were active in the Sangara [659] district to amalgamate villages. A number of the people now living in Hoborita report that they came from such consolidated villages, such as Tunana, which absorbed three neighbouring villages just before the eruption. Informants say that the clusters of villages joined together in this way had always been closely related. The population of Hoborita is more diverse. I was at first told that it was composed of households of four clans (Horeopa, Oripa, Beaupa and Sehopa), the first two clans being in the front village and the last two in the back village. A house-to-house census revealed representatives of a further eight clans, sometimes survivors of clans that had otherwise died out, sometimes a clan more fully represented in Kakita or Soubou while two clan names came from the Sasembata district, under circumstances to be discussed later. Furthermore, when a number of families came from the same clan, they were not always from the same village. While Soubou was inhabited by the remnants of one cluster of four villages, and Kakita by the remnants of one village, Hoborita offered a more general hospitality to all Sangara.

621 Because of their history, the four Sangara villages built since 628 the eruption form a rather tight cluster, quite different from the intersecting circle pattern I described for the Sasembata district. When a person in Soubou died, the whole of Hoborita rushes to join the wake. All four villages in the cluster do this for each other, but [731] not for any other village. Because of the sharp drop in population, and the way the survivors were thrown together after the disaster, people who were previously bound together only by a very loose alliance now behave in the same way as a small neighbourhood cluster of closely related villages.

Meanwhile, the Sangara people are rapidly developing friendships and affinal links outside the tribe. In 1966, the front half of Hoborita gave a feast for Koipa (a large Isivita resettlement village), the back half gave a feast for Asigi, Irihambo gave a feast for Hoborita while Soubou, with the assistance of Kakita, entertained the Uhuru'undi

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

During the time I was at Hohorita, there was no local medical
758 service because the officer appointed by the Health Department was a
759 Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for
[653] government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

653 In Sivepe, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts after the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional structure of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the
● [731] culture heroes. When I did, in a very innocent way, express my

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

Hohorita does feel that it is held back by the present educational
871 provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
582 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly after the eruption. According to this arrangement women who married
582 outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

A [See Cat. 116, p. 228--Analyst]

dance in Sasembata. But they enjoy very much better conditions than are usual for men who marry uxorilocally.

The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepe are no longer practised in Hohorita. For the rest, I did not see many differences between the villages in level of acculturation. Housing conditions in Sivepe were better; money was more plentiful at Hohorita. Dances were far more carefully practised and more expertly performed at Sivepe. Clearly, the Hohorita people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepe has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepe.

Though no groups have left Hohorita since it was founded, the co-residence of these many clans does make for a certain instability. The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepe, the fusion of Jegase and Timumu had established a fairly equal balance with Seho, as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis

177 to the helplessness of the survivors, the extraordinarily strong
731 influence that was exerted upon them immediately after the disaster
[797] by Bishop Hand (resulting in many becoming mission teachers, the building of a church of especially high quality, scrupulous school-going by the children and other signs of compliance), stronger pressure than usual to succeed in skilled occupations, a more profound reappraisal of ideology under the impact of disaster as well as church influence, and finally the availability of more cash-cropping land than at Sasembata, as a result of depletion of the population.

In Sivapo, where little loss of life occurred, the pattern of changes differs from that in Inonda, but the difference may well be largely explainable by the superior facilities introduced, especially by the mission, into the Sasembata area as a response by the Anglican authorities to the disaster.

177 The paradox of Papuan culture change is its dependence on
369 migration out of the rural areas. The striking changes of ideology seem to result always from travel and contact between the men who have been away and those who have stayed at home. In the district itself, the progressives are always those with outside experience. In Hohorita, these progressives had more varied and deeper experiences (perhaps because the home base was destroyed) and those who were urbanised continued constant contact with the village. Rural development has opened up some new economic opportunities, and the improvement of school services is opening up further opportunities, but it is only the returning traveller who understands these opportunities and leads his people in realising them. Relocation provides opportunities for village renewal and these opportunities are seized upon by the natural innovators within the villages (the returned migrants) to hasten the coming of the New Day.

TABLE I

CASUALTIES OF THE MOUNT LAMINGTON DISASTER

731 (Source: Department of District Administration, Popondetta, file 7.3.2)

[162] Total residential population, "Sangara" group (2195 - 195)	1964
Known East Side "Ifainembo" casualties	480
Wairope Camp, list of reported casualties	92
Commonwealth Royal Territorial Service, casualty list	90
Prisoners held at Higaturu	16
Royal Papuan Constabulary and dependents IHG	80
Andemba dead (ex Andemba, other villages and Higaturu)	800
Known Isivita dead	14
Est. dead Sangara mission station personnel	100
	3636
Less: Known Sangara survivors	170
Total Estimated Dead	3466

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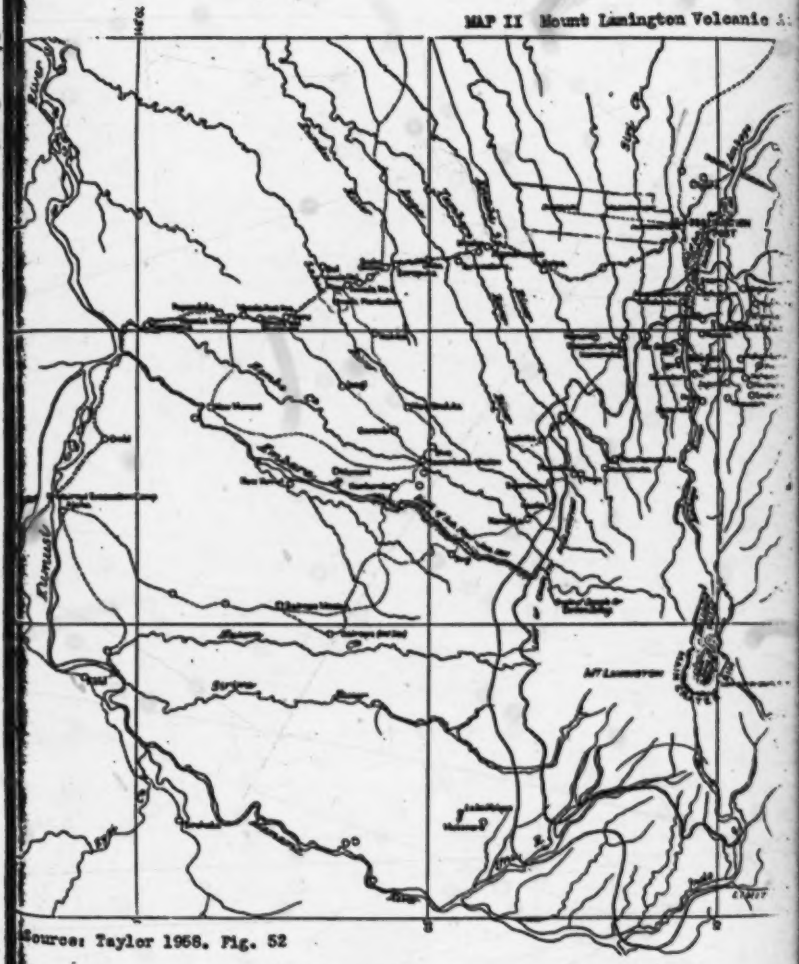
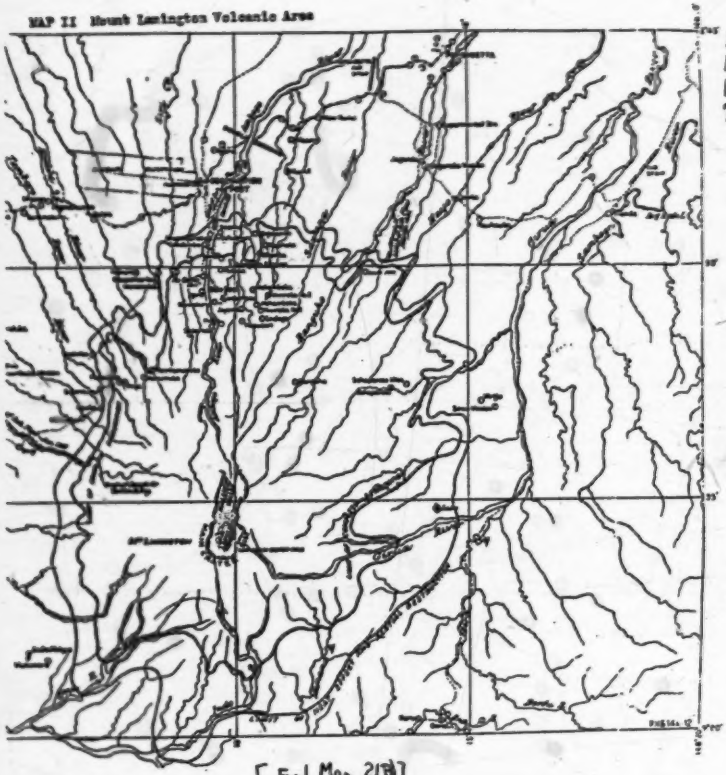
MAP II Mount Lamington Volcanic A



Source: Taylor 1968. Fig. 52

[End Map 2(A)]

MAP II Mount Lamington Volcanic Area



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[End Map 2(B)]

23: Keesing E-5 (1951) 1952
OJ23 Orokaiva OJ23

The Papuan Orokaiva Vs Mt. Lamington: Cultural Shock and Its Aftermath

Felix M. Keesing

731 What happens when people are subjected to unexpected catastrophic shock, dislocating their whole round of life and making a sudden break in cultural continuity? This occurred to some 9,000 Orokaiva in northern Papua when Mt. Lamington erupted on January 21, 1951. Some 4,000 Orokaiva and all of the approximately 50 whites at the Government and Mission stations in the main blast zone were killed. The survivors were forced to flee from ash-choked homes and gardens.

114 12 At the request of the Administrator of Papua and New Guinea, the writer and his wife visited this area some weeks after the main eruption and shortly after a second major blast. The purpose of the visit was to make a brief survey of the relief and rehabilitation operations set in motion by the Australian authorities and to give any advice possible. This area was one of the great battlegrounds of the Pacific war—the Kokoda-Buna-Oro Bay area—and since there are still a number of usable airstrips and jeeproads, it was possible to cover the emergency camps and other Government and Mission operations by plane, and then by jeep, canoe, and on foot, and to get some sense of the consequences of this catastrophe and of the problems involved.[1]

121 This paper does not purport to be based on profound knowledge of the situation for it will take a long while before its total dimensions can be properly assessed. Rather it is designed primarily to raise questions: some of theoretical significance, particularly regarding the responses of such people to cultural trauma of the first magnitude, and others from the "applied anthropology" aspect, relating to choices possible in official and mission policies in the wake of such a destructive experience.

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(657) 1. The actual field survey, covering approximately five days, was made in the company of Colonel Elliott Smith, District Commissioner in charge of relief operations, and included discussions with virtually all of the Government technical personnel, with representatives of the one Mission body operating in the area (the Anglican Mission), and through interpreters with some of the Orokaiva leaders. Discussions were held, too, with the Administrator, Colonel J. K. Murray, and other administrative personnel at the capital, Port Moresby, all of whom had been in an out of the devastated area from the beginning, and relevant official records were made available by them.

[p 16-A]

101 These so-called "mountain Orokaiva" have been described in considerable ethnographic detail by Williams.[2] Pioneer administrators considered them to be the most ferocious of New Guinea peoples. No tradition exists showing familiarity
133 with vulcanism in the area, apart from one or two dubious hints in myth incident. The nearest volcanic outbreak occurred nearly a decade ago in the Tufi district, a considerable distance to the southeast. Mt. Lamington (5,634 ft.) with its irregular humps of old ash cones and its dense vegetation cover has always been regarded as being extinct. The Oro-
241 kaiva worked their hamlets and gardens high up on the rich
361 soil of its sprawling flanks, achieving perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area.[3] They lacked any background
731 conditioning to cushion the shock as did the whites who developed a Mission station, a Government coffee plantation, other "native" cooperative enterprises in the Sangara area, and, during the war, a mountain rest center which became the district headquarters at Higaturu.

133 The first eruption came on a Sunday morning after three
731 anxious days of earth tremors during which official and Mission personnel hesitated to frighten the people by suggesting evacuation. The eruption had the classic Mont Pele pattern: an exploding gas cloud engulfed an area of about eight miles in every direction and then sucked back. Hot ash covered a very much larger area, and the rivers whose sources are around the peak—the Kumusi, Amboga, and others well known for bitter fighting during the war—became choked with ash flows. The Higatura and Sangara centers on the north side caught the full blast and were virtually flattened, as it was this side of the mountain which blew out. Almost 100 percent casualties occurred in the area engulfed by the gas cloud. Since the bodies were often in good-

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[113] 2. Williams, F. E., *Orokaiva Magic* (1928); *Orokaiva Society* (1930). The Orokaiva and their culture are also referred to extensively in Annual Reports of the Territory from 1890 on, particularly by Chinnery and Beaver in the 1914-15 and 1918-19 reports.

3. Williams speaks of the Lamington slopes as "thickly populated and with innumerable garden-clearings . . . one of the most fertile and beautiful in all Papua" (*Orokaiva Magic*, p. 110).

139 condition, it was assumed that death occurred by either
731 the outward blast or the inward backwash. The medical authorities made no post-mortems, however, being fully occupied with the problems of the survivors who poured out from their living sites further down the slopes, shocked, in a few cases very badly burned, and without immediate means of support.

731 A main government trail from Kokoda to the coast, which
[491] was widened into a military road during the war, winds over the shoulder of Lamington on its northwest side. Almost all of the evacuees headed for this road, some going west to the Wairopi crossing of the Kumasi river, others going north toward the coast. Within two days Government relief teams were flown to the area and were operating emergency camps in these two zones. Food, medicines and other supplies were sent in by way of adjacent airfields. The seriously injured were flown out to hospital centers. The first temporary encampments were condemned by the health authorities as they were in swampy or otherwise unsuitable settings; also the fear remained that they were too close to the source of possible further eruptions. Refugees on the west side were therefore moved back to a major camp at Ilimo. Those on the north (coastal) side were taken to two camps: the "Sangara" region people to Eroro, and the "Isivita" region people to Oro Bay. Emergency district headquarters were set up near the Popendetta airstrip on the north side, with an adjacent camp to stage the people back to resettlement areas. A government vulcanologist established a crude seismological station in a somewhat protected spot within the "closed" blast zone to bring the volcano under scientific surveillance.

In the areas that were most damaged and considered to be dangerous for an indefinite period because of their proximity to the active summit, practically all the occupants were killed. Government rolls of the survivors showed only some 400 as being from these settlements. Some were chance survivors in the more marginal zones, others were laborers, police, school children, or people who were visiting at the time. In the settlements lower down the mountainside and in the adjacent foothill and valley areas, casualties were sporadic and whole groups escaped unscathed. After the first panic of scattering, therefore, local groupings were able in the main to reassemble in the regional camps with such official aid as was necessary. Stray child survivors, including some infants, were readily taken under the care of other families, some of whom had lost children. In general, each group could be dealt with through its delegated leaders. Each was given its rations in bulk to use on its own responsibility and, where possible, accommodated as a unit even under crowded emergency conditions.

133 A second major eruption came on March 5. New ash
731 cone accumulated and blanketed the area, but there were no further casualties. Later that month, at the time of the writer's visit, the smoking peak had another great ash cone building up. There were minor ash eruptions in and around the crater and massive ash flows were occurring down the river courses; vegetation was burnt and water rendered unfit for use many miles into the zone of the surviving green forest and savanna. Uncertainty as to further possible

133 731 eruptions has subsequently continued, and reports as of December, 1951, show a persistence of these conditions and a recurrence of bad earth tremors. In other words the Orokaiva, Government and Mission are having to learn to live with the volcano for an indefinite period.

731 241 An observer passing through or flying over destroyed areas was struck by the fact that plants with large fleshy foliage such as taro (the staple food of the Orokaiva) and bananas tended to green over quickly. Root crops indeed sometimes showed accelerated growth, presumably through combined ash-rain fertilization, though considerable rotting set in later. Squads of men were organized to go into the more accessible areas within the blast perimeter to gather such surviving crops, though they were not permitted to stay overnight. These foodstuffs supplemented the official rations which consisted of rice, canned meat, some wheatmeal, peas, salt, sugar, and tea in generous quantity.

731 Within two months the whole situation was becoming reasonably "structured." The Government vulcanologist had defined a danger zone from eight to 12 miles around the active crater; no individual could go inside this area except with an official pass, and then only by day and for good reason. These groups whose living sites were outside this closed area, or who could get land from relatives or others, were being allowed to resettle under conditions closely prescribed by supervising Government officers (this will be enlarged upon later in this paper). On this basis, some 2,500 persons had already left the refugee camps, though they were still being rationed to some degree. The "Sangara" people had been transported back inland from the Eroro camp to the Popendetta camp and adjacent zones within a few miles of their homes. The "Isivita" people at Oro Bay, numbering some 600, were being transported in batches of some 35 persons every other day by launch from the Oro Bay camp to Killerton, by truck to the Popendetta camp, then by small Dragon Moth plane to the Kokoda airstrip. From here they walked the approximately 20 miles to the Ilimo camp on the western side of the mountain where they had lived formerly. The Oro Bay camp was in this way closed down by May. At Ilimo, some 2,000 persons were living either in the first temporary huts such as the Orokaiva build for emergency or short-term housing, or in large newly-constructed houses of a more permanent type. (Somewhat later this camp population was reduced to about 1,500, comprised essentially of the surviving people from the west side of the mountain whose homes were in the closed-off area and who had not been able to find resettlement places outside). The Ilimo camp had a staff of some 14 white officials, aided by Papuan police and other assistants. In addition to the various welfare activities, there were schools for children and adults, sports, a community hall, and a large block of garden land broken in with tractors and other modern tools. Government was using it as an experiment in "community development" as well as a relief center.

731 657 177 [361] By that time, too, a whole series of policy problems had arisen which both the field staffs and the Australian authorities at Canberra and Port Moresby were trying to resolve. Most serious was the question of how far the crucial break with the past should be used as an opportunity to encourage

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely 621 more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are [614] reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The 592 generally monogamous family units are under the "immediate 62 authority of the father," while the affairs of the local living 622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal 422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in [154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually [562] hostile and resistant to whites. Women were often seen ac- [786] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that [628] while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were [728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes 361 as the result of a "quarrel and the fear of retaliatory magic," 241 but more often it was "simply the lax method of horticulture [518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend 361 to occur in exceptionally dry southeast winter seasons. During 261 this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild 731 roots and fruits. The implication of this is that even the 165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifi- 178 cation, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly [199] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influ- 361 ence. Over against this greater dispersal, the people have 571

should be formed ... (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[2]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

2. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

731 36 [659] to get out from under the direct control of Government and that everything was "subordinated to this end." Those who had title to land outside the closed area and wished to get to it, readily agreed to official plans for resettlement, including the village building program. Those whose land was inaccessible—too far off the road or in the danger area—attempted to obtain permission to occupy land of kinsmen or others who might be willing. The most immediate objective was to break in gardens and to reduce or eliminate the need for rations, emergency wild foods, or daily treks into the closed area for salvage produce. Here difficult problems are foreshadowed. This pattern of settlement will be possible only on a short term basis. For longer occupation the people will either have to scatter out in widening areas to make their further seasonal shifting gardens, or else make the radical change to sedentary gardening which has no appeal to most of them.

731 36 311 [161] The situation is made more serious by the fact that the safe land tracts are, in general, less fertile than the devastated higher slopes; these and comparable areas elsewhere do not carry such relatively dense settlement.[9] Mr. H. T. Plant, an officer with anthropological training, made a quick survey of land tenure and social structure in the resettlement zone on the Wairopi side. On this basis he estimated that with only about five acres at hand per person, or approximately 100 people to the square mile, the available land is inadequate by New Guinea standards to support the population. In April, Belshaw found that great uncertainty surrounded land use problems. There were frequent moves, uncertain titles, disputes over tenure, and conflicting authority among the hamlet and clan leaders. He predicted that it might take months to sort out the economic and social threads involved. It will take far longer to build up seed stock, domestic animal herds, and other bases for normal living, as well as the large quantities of food required for the proper ceremonies for the dead which will eventually be held. In due course other settlement areas than those immediately occupied will need to be found for people still in the camps.

731 152 [578] Government and Mission personnel were ready to offer judgements on Orokaiva behavior in the crisis situation, and camp records had some objective data to the extent that people broke the law, entered hospital with wounds, or otherwise came under official purview. In addition to the "sense of guilt" already mentioned, there was said to be considerable "anxiety," "irritability," "excitability," and "quarreling." The legal record shows several sharp clashes where injuries were inflicted, wife-beatings, and other kinds of quick tempered violence. Under extreme provocation, it was said that they might "throw hysterical fits." An obvious source of early tension came from not knowing the fate of missing clansmen. Officials denied knowledge of any significant mental derangements beyond the scattering of instances known previously.

The Oro Bay camp inhabitants appeared to be under by far the most stress and strain. Here, out of sight of the

9. Williams, after referring to the rich Lamington slopes, says: "A somewhat discouraging contrast is found in the forests of the plain proper, which are sometimes gloomy and waterlogged . . . and of wholly inferior quality" (*Orokaiva Society*, p. 12).

731 152 [823] mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

731 361 199 The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualized bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallized opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

731 659 361 199 The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organized Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

731 liberately endeavored to keep everyone busy, and the men
659 spent much of the time in work gangs (e.g. Monday, Tues-
361 day and Wednesday were usually devoted to house-building;
199 Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

731 2. Reasonable law and order was being maintained in the
659 new settlements, under the eye of a considerable force of
578 the Papuan Constabulary sent in for the emergency. Oppo-
[625] nents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

731 3. Not least among the uncertain factors is that of sorcery.
754 According to those who manage the settlements, fear of
514 coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

731 4. On the economic side, no sound basis seems in sight
361 for establishing large permanent communities in the com-
241 prehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more
[242] intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As
731 in socio-political affairs, the responsible organization and
659 leadership would in general have to be provided from out-
[241] side, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized
[199] agricultural production it is introducing at the Ilimo camp.
731 In large settlements the technique of handling domestic pigs
231 and chickens, vital sources of protein, is always a difficult

problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission teachers started elementary vernacular schooling in the camps.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Yali cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manseren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 128-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

241 the Territory to the point of self-sufficiency and dietary ade-
177 quacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial De-
[654] partment of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this
[749] still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

731 To the extent that this paper presents a correct interpreta-
177 tion, its implication is that this catastrophic shock has pro-
178 duced something approximating a minimum degree of cul-
121 tural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective
[659] relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimula-
121 tion and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p.22-B]

the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data, dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

121 why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

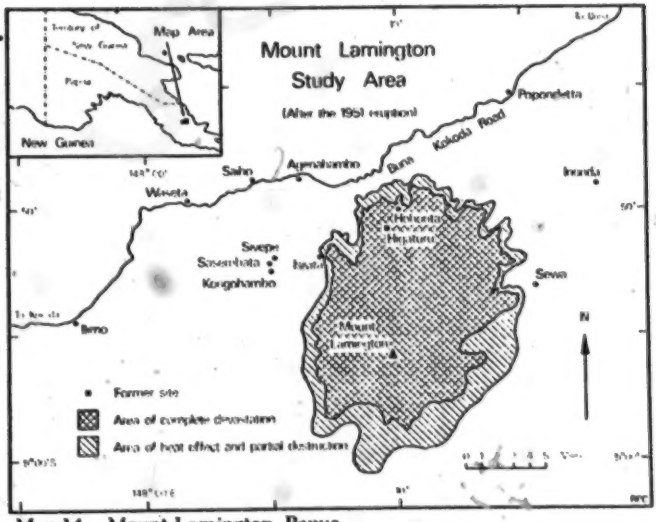
THE EVENT AND ITS SETTING

133 731 On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor 1958:7).[6] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The 165 101 word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1).[7] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homo- 731 genous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23



Map 14. Mount Lamington, Papua.

survivors, established camps to house them, and set up a volcanological observation post. Acting on technical advice that further explosions were to be expected, the administration at once restricted access to a fairly wide area surrounding the crater, thus forbidding most of the fugitives to return to their homes. It was at this stage also that the administration called in two anthropologists, Felix Keesing and Cyril Belshaw, for advice on what should be done with the now homeless population.[3] Shortly after the two anthropologists left the scene in May 1951, volcanological studies indicated that the active, paroxysmal stage of activity of Mount Lamington had ceased and hence that a large part of the restricted area could be resettled. In March 1953, it was possible to reduce the restricted area still further, to a circle of 2 miles surrounding the crater. As a result of these events, virtually all arable land in the district was in use when I visited in 1966–1967. There were no displaced communities in the proper sense of the word. There had been movements of villages from the crater area to consolidated settlements in the vicinity of paved roads, but here convenience

rather than security was the main motive. Villagers were able to use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hospital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[8]

My research included three intensive studies of single villages. The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 persons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[9] This third clan group returned to Sivepe early in 1952. Sivepe was rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was concerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion to the mission station. The government had demonstrated in the most tangible way that it accepted broad responsibility for the people's welfare in a time of crisis and would act with great generosity in such circumstances. The mission, which likewise had established close relations with the people of Ilimo, had subsequently remained to develop those relations.

As a control group for the study, I used the small village of Inonda, 12 miles from the crater and outside the restricted zone. Inonda differed from Sivepe in that its population was never evacuated or relocated. It continued to use its own land. The comparison of Sivepe and Inonda thus provides a measure of the effects of actual relocation as distinct from other experiences the two villages had in common. In Inonda only one-fifth of the land is arable; none of it is as fertile as the volcanic loam of the Mount Lamington foothills; rainfall is lower than in Sivepe and so distributed that lengthy droughts are not uncommon. Drainage is inferior while population density is only ten persons per square mile.

Inonda acted as host for the population of Sewa village who fled their homes on the morning of the eruption. Among the fugitives was a mission teacher who set up a school in Inonda. When he was later transferred to another district, Inonda pleaded fervently and successfully to get him back. Today Sunday services are given by a lay preacher and children attend a mission school several miles away which teaches up to grade two.[10] Interaction with government and mission authorities was far less intensive at Inonda than at Sasembata.

The third village I studied was Hohorita (population 348), 7 miles from the volcano, with soil largely similar to Sivepe's, good rainfall, good drainage, and a population density of 135 persons per square mile. Hohorita is made up of the survivors of the Sangara tribe, once 4,000 strong, which was almost entirely wiped out by the eruption. The survivors were evacuated to camps along the coast and then allowed to return to the boundary of the restricted area, where they built a village called Irihambo. They were ordered to leave this village some years later (as it was situated on crown land intended for the settlement of Australian ex-servicemen) and then established Hohorita in 1957–1959. The Hohorita people, like other relocated groups, had had intensive contact with government and mission personnel. An unusually large number entered skilled occupations, partly because the San-

gara lived close to a large mission station which offered educational facilities until it was wiped out by the disaster. Afterward, the mission took a special interest in their welfare.

What distinguished the relocated villages from the others was not greater contact with European-dominated institutions. On the contrary, it would seem that contact with such institutions was probably most frequent among the male residents of Inonda, who were much engaged in wage labor; such contact was least frequent in Sivepe, with Hohorita holding an intermediate position. Nor could it be said that economic prosperity, in the sense of money income, was correlated with relocation. On the contrary, the average income was higher in Inonda than in Sivepe or Hohorita.

In summary, the major outcomes of the eruption and relocation have been the following: first, the administrative center Higaturu, situated on the mountain, was destroyed and replaced by Popondetta, which lies on the alluvial plain to the north, thus shifting the center of Australian influence away from the relocated villages. This detracted from rather than contributed to development of the relocation areas and placed the administrative center at some distance from the areas of greatest population density. However, the relocated villages were provided with subsidiary centers of Australian influence such as the hospital in Saiho and the mission stations at Sasembata, Isivita, Agenahambo, and Hohorita. In addition, a number of large villages (with populations of 250 to 500) came into being along the main road between Popondetta and Kokoda at a distance of 6 miles or more from the crater; these villages were made up of groups previously domiciled in small bush villages.

The government prefers these large villages because they make it possible to introduce such Western social institutions as schooling, water supplies, road construction, and health clinics more conveniently. The eruption offered the government a good opportunity to establish large villages. The population of the bush settlement had abandoned the area, and by the time the population was allowed to return, the villages were no longer habitable because of eruption damage and subsequent neglect. In this sense the eruption offered an opportunity for speeding up development programs. One might also argue that social development among the Sangara survivors was accelerated when the entire older genera-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

tion perished in the eruption and the survivors were therefore not fully instructed in traditional religious knowledge. Innovation proceeded without the resistance an older generation might have offered had it survived. I have argued elsewhere that this absence of the elders led to striking changes in the Sangara perception of the world (Schwimmer 1969:70–71).

If we compare relocated villages such as Hohorita and Sivepe with villages touched less by the disaster, such as Inonda on the alluvial plains, we notice that the former villages are larger, display more of the innovations advocated by the government, have a higher level of school education, and have responded more to government-sponsored schemes such as coffee growing. In my detailed report (Schwimmer 1969), I was inclined to ascribe such differences to the effect of close contact and guidance during the period immediately following the eruption, but such an explanation should be treated with caution.

The differences are probably due largely to ecological factors described in the report. Inonda land provides more animal foods; it is slightly closer to wage employment and markets; the climate is less suitable for cash crops than in Sivepe. The population, due to its sparseness, is relatively deficient in health and educational services. Hence the conditions for cooperation with government programs were less favorable than at Sivepe. Furthermore, the observed differences may also be due to historical factors. While coastal and foothill areas had been missionized and in contact with the administration for many years, the intervening Sauaha groups including Inonda were defeated and sustained heavy losses in the warfare of the early postcontact period. They subsequently remained aloof from white contacts. After the Japanese occupation, some of their men were hanged by the Australians for having acted as collaborators.[11] Hostile feelings are still an impediment to the acceptance of government and mission programs.

Such social consequences of the Mount Lamington eruption do not in themselves lead readily to illuminating anthropological generalizations. The actions of government and mission immediately after the eruption greatly relieved the distress of the population, but we cannot establish that these actions, directly and specifically, led to major social changes. One might therefore be inclined to view the eruption of Mount Lamington as lacking serious anthropological interest, yet such a view would greatly

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

pointed by the administration to enforce regulations concerning law and order, works and amenities. They were not necessarily 'big men', customary feast-givers or, military commanders.[13] At Ilimo they at once became the leaders of all operations (food distribution, house building, visits to the home village), as these involved dealings with the Europeans in control of the rescue and supplies.

These organizational changes, individual fears, grief, anguish, and the increased dependence on village constables and white authorities were certainly reflected in the explanations given of the eruptions. But these explanations took account also of far broader cultural issues, in fact of the total postcontact experience common to the population of the Northern District.

The Orokaiva explanations of the disaster to be considered here certainly cannot be understood except in the context of the total Orokaiva cognitive system. Any Orokaiva explanation places the eruption within a logically consistent framework of meaning, but it is only one of several possible frameworks that might, successively or even simultaneously, be constructed out of the Orokaiva cognitive system. I propose, in the present section, to construct a model of the various systems of connotation and the relations between them. Systems of denotation are briefly referred to here but explored in more detail in the following section.

One obvious line of explanation of the eruption was to ascribe it to the anger of Sumbiripa. Many Orokaiva actually explained the disaster in this way at the time it happened, as may be seen from the evidence of Tomlin (1951), Benson (1955a, 1955b), and Schwimmer (1969:69ff.). The anger of Sumbiripa, as supposedly expressed in the eruption of Mount Lamington, was explained by Orokaiva by various disrespectful acts against the mountain. Grenades had been thrown near the crater during the war. Afterward, the Orokaiva began to acquire guns for hunting on the mountain. Such were the acts quoted to me in Hohorita and Sivepe as arousing Sumbiripa's anger. The eruption was regarded by informants as an unprecedented event. The question arose in the Orokaiva mind why such an event should occur just then, when it had never happened before. The anger of Sumbiripa had always been feared, but no sinister meaning had been attached to the rumblings and smoke signals, and, moreover, revenge had always been mediated through 'ghosts'. The new form of punishment could be explained

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

significance is assigned to this distinction for the purpose of stating some ideology.

Barthes (1964a) points out that in a connotative system the level of expression is "rhetoric" and the level of content is "ideology." This seems to describe the pattern accurately enough. The present explanation may be reduced to a rhetoric or moralistic vilification expressing a tribalist Waseta ideology. The rhetorical aspect is clear because in actual fact both tribes hunted on the mountain though only one was hit seriously by the disaster.

I now turn to a second explanation which deals with Orokaiva, though we have very few data on its currency among them. The explanation is contained in a report (undated but probably written shortly after the eruption) from Fred Kleekham, district agricultural officer, Popondetta, in which he describes a mission-sponsored "Christian Cooperative." This cooperative flourished among the Yega at that time where, in Kleekham's opinion, it "did indeed become a cult." Kleekham reports that members of the cult refused to have their rice hulled or bought by the government and that this was due to "some mystical element . . . involved in rice marketing." He continues:

> I think that more influential than the thought that Europeans would leave Papua as a result of cooperatives was the belief that the formation of and participation in cooperatives would—magically or mystically—in short time raise the native to the status of the European in all respects. . . . I am sure that this movement owed much to hanging of Orokaivas judged responsible for the murder of missionaries and the former officer in charge of the coffee project.
>
> It is interesting to recall that one group was prepared to do *anything* under European guidance to get money. Their message was "show us how to get the money to buy the guns." Later the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings.

There is no evidence that this explanation of the disaster was ever held by any Orokaiva. It is more than probable that this explanation is that of the Yega, who are traditional exchange partners of the Orokaiva and enemies of the Sangara. It is among the Yega that Kleekham worked, and I am inclined to believe that the Yega widely accepted the views he reported. This would fit the facts as we know them. Certainly we should not expect the Orokaiva to explain the disaster by a theory which accounts only for

the death of the 45 Europeans on the mountain but not at all for the death of 4,000 Orokaiva and the destruction of hundreds of villages. It is far easier to understand such an explanation coming from the Yega, traditional enemies of the Sangara tribe, whose own losses through the disaster were very small. There is indeed no reason why the Yega should have been grief-stricken by the eruption at all. They were involved in an anti-European cult according to which the death of the administration personnel at Higaturu was thought nothing less than a divine blessing, while the misfortunes of the Sangara may well have been a further source of satisfaction. The Sangara survivors, who were quartered in an evacuation camp in Yega territory from February to April 1951, felt most uncomfortable there and very frightened that they too would be killed off by their old enemies through poisoning, sorcery, or other mischief.

The data do not enable us to say with certainty whether or not, in the Yega explanation, the eruption was actually caused by the anger of Sumbiripa. Benson (1955a, 1955b) describes the general atmosphere among the Yega immediately after the eruption, and from his account one gathers that the Yega, like the Orokaiva traditionalists, believed Sumbiripa was responsible, though he was credited with somewhat different motives. Kleekham is undoubtedly right that the public execution of the so-called collaborators, conducted by the Australian army in a spectacular and rather gruesome manner, caused much resentment among the various tribes of the Northern District. The Yega cooperatives of the late 1940s, described in some detail by Dakeyne (1966) and discussed in Schwimmer (1969:86–89), were led by two Anglican clergymen, Benson and Clint. They must therefore have believed that power would come to them through the intervention of the Christian God. Though the precise significance they attached to the eruption is not known, the context suggests that they must have regarded it as a sign that supernatural forces were working in their favor or at any rate against their enemies.

The metalanguage used in the Yega explanation is that of a millenarian cooperative cult, arising in response to what was regarded as oppression and commercial exploitation. The eruption established a rule that supernatural agencies punish white people who hang Papuans. In justification of the rule, there was again cogent empirical evidence. Most of the forty-five Australian victims of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sumbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

ject of the wrath of the mountain. There are, however, two interesting differences. The first is that in the Orokaiva explanation we find an opposition between two tribes (Waseta innocent; Sangara guilty). In the Yega explanation we find an opposition between ethnic groups (Papuans of the Northern District innocent; Europeans guilty). This classing together of the Papuans of an entire region is a departure from traditional tribalism. It reflects an ideology aimed at maximizing indigenous power by the establishment of an intertribal regional coalition.

The second difference lies in the role of Sumbiripa (or whoever the angry deity was) in the two explanations. In the Orokaiva version, the transgression was against the sacred domain of Sumbiripa and thus of a familiar traditional type. In the Yega version, the punishing God assumes a strangely political role in taking the side of the Papuans against their enemies, the whites. The crime of the whites admittedly took place near the mountain, though not in the sacred domain. Sumbiripa was never, in any other context, described as a general defender or avenger in support of "his" people. Indeed he seems to be playing a somewhat Jehovah-like role in this tale. We are here in the sphere of the Cargo Cults or millennial movements rather than in that of traditional Melanesian religion.

Meanwhile no mention is made of the 3,500 Sangara who died in the disaster. This would have weakened the argument, for any reference to the Sangara victims might have suggested that they too were worthy of punishment. Though the Yega probably do think so, it would not have been expedient to say so when an intertribal alliance was contemplated. Here we are obviously closer to ideological rhetoric than to philosophical speculation.

The third explanation of the disaster is the one that has attracted the most attention by previous writers. Belshaw, who met Orokaiva survivors a few weeks after the eruption, records the following observations (1951:242):

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them betrayed missionaries to the Japanese. [Others again mentioned] lack of cooperation in Mission and Government plans for development. . . . This sense of guilt is a most important factor in resettlement attitudes.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Keesing (1952:18) agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life."

A great deal of evidence supports Belshaw and Keesing in their suggestion that in 1951 the Orokaiva ascribed the eruption to the anger of the Christian God and thought they had brought this anger on themselves by various transgressions. Orokaiva informants reported that this view of the eruption was widely current at Ilimo evacuation camp. It is reflected in a song about the eruption which is still sung by Sivepe youth. This song declares the omnipotence of God and man's absolute dependence on him. It also attests to a wholly Christian eschatology: the abode of the dead is Heaven, where the living will later meet their brothers who died in the eruption. The song admits the guilt of the dead ('our brothers on earth had many temptations'), but the strongest emphasis is on the suffering of the living through the loss of their 'brothers'. Unlike Job, the singer is far too polite to contend with God and criticize his actions. He does not openly and clearly identify God as the author of his sufferings, but God's responsibility is subtly implied.

The rationale of this explanation is not obvious. Quite clearly those who believe that God and not Sumbiripa was responsible for the disaster have some belief in Christianity. In response to contact with the white man they have developed an ideology supporting the work of the missions. But how do they explain the eruption? It seems very clear that in 1951 many explained it as retribution for their lack of respect for the Christian God. But Orokaiva Christians interviewed in 1966 and 1967 rejected this explanation as resting on a misunderstanding of the nature of God. Father Albert, who composed the song referred to above, was one of those questioned. He said that many of those who died in the eruption were little children. He did not think God would punish the innocent along with the guilty. On the other hand, he did ascribe a divine purpose to the eruption. Father Albert said the Orokaiva used to have no idea of the end of the world; this notion was taught by Christianity. After the disaster the people discussed it a great deal: when they saw the sky darken and people dying from the blast, they thought the end of the world had come. God had shown them what the end would be like. In other words,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Father Albert thought that God sent the eruption as a sign. Orokaiva Christians would generally agree with this view, though none of those interviewed formulated it so clearly.

From the viewpoint of this study, the question whether the Orokaiva considered the eruption as a punishment or as a sign is perhaps not a crucial one. In either case, whoever believes that God was responsible must also believe that a dire fate awaits anyone who fails in his obligations to the mission.

Comparing the three explanations surveyed so far, we note that the Christian explanation, like the Yega one and unlike the Waseta version, attached no significance to tribal divisions. God (like the Sumbiripa of the Yega) makes no distinction between tribes, but he does distinguish between the disobedient Papuans of the region and the administrators and missionaries these Papuans failed to obey. The former are guilty but not the latter.

Christian and Yega theories are opposed as to who is the guilty party. Indeed, the Christian explanation omits all reference to European deaths on the mountain, just as the Yega version suppressed the fact of the Sangara victims. The reason is no doubt the same: rhetoric demands that one should not in the same breath advocate a coalition with the white power bearers and admit that the latter suffered many deaths in circumstances implying their guilt.

With regard to connotations, all three systems differentiate between either tribes or ethnic groups that fell victim to the disaster, even though such differentiation is insignificant for explanatory purposes. If we use a minus sign to designate the social groups classed as guilty and a plus sign for the groups classed as innocent (though in fact the latter, too, suffered serious losses), we find:

	Victims		
Explanation	Waseta	Sangara	European
Waseta	+	−	omitted
Yega	+	+	−
Christian	−	−	+

I shall briefly mention a fourth system, though the explanation it contained was put forward by a small minority and was but feebly believed. Several Orokaiva close to the mission maintain nowadays that the eruption was due solely to geophysical causes. The mission authorites put forward this explanation to counter criti-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

Connotation	Explanation			
	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

was amazed to see how closely the councillors' harangues and other speechmaking in the villages corresponded to official policies. Many of the advocated ideas were not being put into practice, but generally the transition seemed rather smooth. There were conflicts between the Orokaiva and their mentors, in some instances irreconcilable ones, but it seemed that consideration of these conflicts was being deferred because there was evidence of steady improvement, as long as coffee prices would only keep rising.

Informants, when asked when the 'new age' had started, all replied that it was after the Japanese were driven out. The eruption was never mentioned as the beginning of the 'new age'. It was after the war that the money economy became important and men began to take jobs outside the village for protracted periods. It was then that money became a necessary part of bridewealth so that, as an initiatory ritual, every young man had to have earned some. It was after the war that village improvement started seriously, as the history of individual Orokaiva villages shows.

The eruption of Mount Lamington in 1951 came a few years after these beginnings, at a time when the impact of money was not yet great, though the government and mission had had time to communicate the new order they sought to establish and to press for changes the Orokaiva were not too ready to accept. The eruption strengthened the message. On the transactional level, there was the large-scale help offered by the Europeans after the eruption. This was done in the most dramatic way possible, by planes dropping their riches in great abundance shortly after the disaster. Certainly such a massive display of concern in a moment of need did much to enhance the image of Europeans as desirable exchange partners. This display was followed by the organization of the camps and by the widespread introduction, especially at Ilimo Camp, of activities that were symbolic of the 'new age'.

Daily church services were conducted, all children were given regular schooling, adults were educated in a number of new agricultural and technical skills, good medical services were provided, and regular food and clothing distributions continued. New ideas on housing, village layouts, and women's handicrafts, lectures on how trade goods are manufactured in Australia, the presence of a strong development-oriented and numerous European staff—all these elements must have amazed the Orokaiva villager of 1951,

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

121 construct a higher-level system which accounts for all the explanations taken together.

731 Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one 809 another: they can be and are held simultaneously by the same peo- 184 ple. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* [778] Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial [704] cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

731 None of these reasons would have sufficed to kill the movement 657 had there been, in the 1950s, a strong opposition to the adminis- 797 tration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

FIGURE 1 Example of Orokaiva Explanation of Anger of God

[p.328]

Disappointment
Default
Murder of missionaries. No subsequent improvement in participation.
Eruption.
Anger
Admission of guilt
Increased cooperation.
Gift of baptism and communion.
Pastoral Care
Obedience
Material help and participation in church.

[p. 329]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

so that the room for manipulation becomes greatly reduced. Furthermore, the church teaches a doctrine of obedience, which the Orokaiva nominally accept.

Taken at its face value, this would imply that the Orokaiva are satisfied to subordinate themselves to mission and government and do not consider themselves capable of serious competition with white authority. Such a notion of 'power'—that is, that it depends on obedience to white foreigners—has no rational basis in Orokaiva thought, since the bearer of 'power' cannot be subordinate to human power but only to spirit power. There are thus only two reasonable possibilities: either the ideology which made the eruption into a punishment by the Christian God denies the possibility that the Orokaiva henceforth can have 'power', or that ideology must make some distinction between, on the one hand, God and the principle of rightful authority (which should be obeyed on the pain of dire penalties) and, on the other hand, the existing ecclesiastical and political power bearers (who need not be regarded as having perpetual rightful authority). The position taken by Orokaiva informants on this question is not in the least ambiguous.

The Orokaiva are willing to obey the present power bearers, but only on the ground that they feel unready at present to assume power themselves. They regard the existing relationship as temporary. They are able to state this openly, since the Australian administration claims to prepare the way for early autonomy and optional independence. On the surface, there appears to be no acute political conflict.

In fact, however, the 'new age' ideology is fiercely competitive. The activities it advocates are perceived by Orokaiva as leading to a balance of power between the Europeans and themselves. The strong interest in schooling, savings clubs, coffee production, village improvement, wage labor, and so forth was explained time and again by the argument that these activities would ultimately place Papuans on the same level as Europeans and would remove the power differential. It was explained that in the 'new age' one no longer kills and eats the enemy because victory must now be achieved by different means. The reforms advocated by mission and government are perceived as the first weapons in the armory needed for victory. Victory, however, should not be understood here in the European sense, where it implies a permanent defeat of

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

the enemy, but rather in the Papuan sense, where one contends with exchange partners in an inconclusive tug-of-war and the strength of the opponents is approximately equal. Victory, in other words, is the establishment of an equal rather than an unequal relationship.

Given this view of the European-Orokaiva relationship, it is difficult to distinguish between millenarian and gradualist ideologies among the Orokaiva. They are all, in a sense, millenarian, even though they advocate full collaboration with both mission and government. From the more objective view I have taken here, the three Orokaiva ideologies present at the time of the eruption all convey the same message. They are all concerned with the restoration of what the Orokaiva call 'power', which always implies some form of power balance between themselves and their colonial masters.

IDEOLOGY, POWER, AND LAND

As we have seen, all Orokaiva discourse about the eruption can be reduced to one basic theme: competition for power between Papuans and Europeans. I have not surveyed administration discourse about the eruption in the same detail, but it is safe to say that, apart from the mechanics of relief, the administration was likewise concerned with one central ideological theme, namely socioeconomic development. Our structural analysis would hardly be adequate unless we considered the relation between these two ideologies, not only in abstract terms but also in the framework of concrete events.

During the period immediately after the disaster, the administration planned to make the evacuation camps the beginning of permanent relocation under conditions where socioeconomic development throughout the region could be accelerated (Belshaw 1951; Keesing 1952; Plant 1951). While this relocation was being planned, the evacuees were adamant that they wished to go home as soon as possible (Belshaw 1951; Kaad, personal communication). That the administration gave in to the evacuees should not be regarded as a Papuan demonstration of their own power but rather as a necessary response to practical problems facing Orokaiva as swidden agriculturists lacking a secure system of individual, unencumbered landholding. The circumstances of the closing

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic g oups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been associated with their land.[12] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

The fears about losing the land which explain much of the tension at Ilimo Camp are a direct consequence of conflicts implicit in Orokaiva social structure. The institution of land borrowing, the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

182 dependence on the exchange system for the creation of larger soli-
423 darity networks. In a culture where warfare was endemic, these
614 larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

178 The 'new age' ideology, as expounded in 1966–1967, does not
423 ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[18]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

731 We have seen that, at Ilimo, the traditional land tenure system
657 was the basic cause of a conflict which strongly affected the
423 course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

administrators, accustomed to secure forms of land tenure in their own culture, could not fully share the Orokaiva anxiety about losing their land.

This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

This analysis of the 'new age' ideology indicates that it is related only loosely to social and economic development. It arises directly out of political competition between the Orokaiva, the mission, and the government. Whenever new techniques appear to the Orokaiva to serve this power struggle, their adoption is advocated. We have seen that a traumatic event such as the eruption of Mount Lamington, when it became the subject of Orokaiva philosophizing, was at once put at the service of this competitive struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and micro-processes. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cognitive system. For the most part, however, I was concerned with microprocesses, such as the simultaneous development of explanatory systems based respectively on a tribal, Cargo Cult, and church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

The eruption became a sign because it took its place in a series of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

   The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."
2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).
3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a care-free life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.
4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).
5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).
6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.
7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).
8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).
9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthropologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva-captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

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1966–1967, however, this fear was not mentioned to me by informants, whereas I often heard of their worries about the danger that relatives from other villages might take their land, goods, and chattels.

18. On the average, an Orokaiva derives approximately half his land from patrilineal inheritance. In accordance with British terminology, I have called this "patrimony land." The other half comes from a variety of sources, mostly from uterine kin.

[pp. 342–400 not processed]

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

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361
614
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Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

[423] ** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[425]

Chapter 6

Activity patterns: Sivepe

125

Introduction

[126]

The Sivepe survey involved 35 adults (17 men and 18 women). Of these, 23 were resident in the village throughout, the remainder either commencing or terminating their residence during the survey period. In all, a total of 5,310 man-days was covered although, on account of temporary absences and sickness, detailed records were only kept for a shorter period. Of the total available labour time 6 per cent (320 man-days) was lost through absences longer than 24 hours and a further 4 per cent (212.4 man-days) through sickness within the village. However, during a single week in period I, at the height of an influenza epidemic, 29.6 per cent of potential labour time was unavailable (see Fig.6:1).

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(a) Temporary absences

A total of 453 man-nights was spent away from the village, or 8.5 per cent of all covered by the survey.[1] An analysis of reasons for absence is presented in Table 6:1. The major single cause, 36 per cent of the total, is visits to ex-servicemen settlers at Sangara, mostly by kinsmen[2] to assist in establishing the block. A further 26 per cent of absences involved garden work, either protecting the gardens from incursions by pigs, or facilitating intensive clearing programmes.

While the fulfilling of social obligations accounts for only 16 per cent of all absences, it involves the largest number of people (24 of a possible 35, compared with 13 for garden work and 5 at Sangara) and is characteristically of short duration, seldom more than one or two nights away from the village. By contrast, the

[1] The difference between this and the figure of 6 per cent for man-days quoted above being that some of the nights involved absences of less than 24 hours duration.

[2] A daughter of one of the sample is married to a settler while a Jegase man from a neighbouring village also has a block at Sangara.

[TEXT CONTINUED ON PAGE 77]

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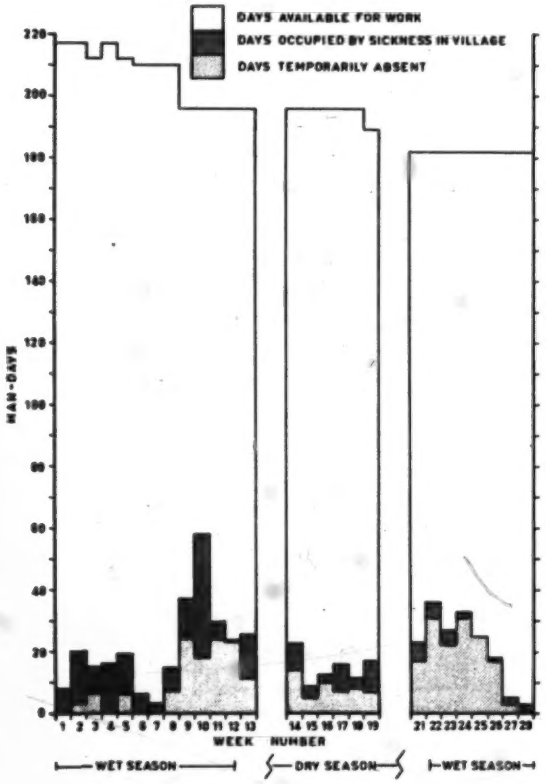
SIVEPE FIGURE 6:1

POTENTIAL WORKING DAYS AND DAYS OCCUPIED BY ABSENCE AND SICKNESS



mean duration of absences at Sangara is 26.7 nights. In the case of such long absences only one member of the household is normally involved so that the routine of gardening activities is not greatly disrupted. 166

As Fig.6.1 demonstrates, some periodic variation is discernible in the pattern of absences. During the first seven weeks of period I absences occurred on only 1.7 per cent of survey nights, but for the rest of the survey a substantially higher percentage was maintained. These first weeks largely coincided with an (abortive) attempt to establish a communal cash crop garden in the village.[1]

The proportion of absences rose to 10.1 per cent during the last six weeks of period I, falling slightly to 7.4 per cent during period II, the main cash cropping season, and rising to a peak of 15 per cent in period III. During this last period over half (59 per cent) involved visits to Sangara.

In analysing absences according to sex, age and cash cropping status some meaningful patterns emerge (see Table 6:2). Men tend to absent themselves more than women, largely on account of their greater dealings with the external agencies (17 per cent of all their absences). [562]

The 25-34 years old age group is distinguished by its very low incidence of absences - less than 2 per cent of survey nights compared with over 10 per cent for all other age groups. Virtually all absences in this age group were connected with social obligations or garden work; no visits were made to Sangara. The mobility of this age group may be influenced by the fact that it comprises young married people with families.

Cash croppers absent themselves less than non-cash croppers, while almost 42 per cent of the former's absences is connected with subsistence garden work and only 6 per cent involved visits to Sangara. By contrast non-cash croppers are not only absent more frequently but spent 55 per cent of all nights absent at Sangara. Since assistance to settlers is normally reciprocated with cash payments or trade store goods (usually food), evidently those with no reliable avenue for acquiring cash within the village context perceive assisting kinsmen on the land settlement scheme as an important alternative source. [434]

(b) Sickness

While sickness and the care of sick people account for a minority of absences from the village, they did result in 212.4 man-days being spent totally inactive within the village and a further 615 464 734 164

[1] See pp.44-5. 1

[TEXT CONTINUED ON PAGE 77]

A,[See Category 245, pp. 44-45--Analysis]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 6:2

Sivepe: nights absent from the village by cause and according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Total nights present	2,629	2,681	826	1,334	882	2,268	3,157	2,153
Nights absent (per cent)	10.3	6.8	11.5	1.8	10.4	10.6	5.7	12.6
Absences - by cause (as a percentage of total absences)								
Garden work	28.0	23.8	2.2	33.3	13.0	40.2	41.7	16.2
Social obligations	15.9	17.1	27.4	45.8	22.8	6.6	21.7	12.9
Sickness	5.5	11.0	-	4.2	-	14.1	1.1	12.1
At Sangara	31.7	41.4	69.5	-	12.0	34.9	6.1	55.1
External agencies	16.6	6.6	-	-	46.8	4.1	27.2	2.9
Other	2.2	-	1.0	16.7	5.4	-	2.2	0.7
Total	99.9	99.9	100.1	100.0	100.0	99.9	100.0	99.9

man-hours were absorbed by clinic visits and related public health activities. So, grouping all three categories together, sickness accounts for almost 7 per cent of potential activity time.

In analysing the 212.4 man-days spent inactive, Fig.6:1 indicates that 26 per cent fell during two weeks in period I when an influenza epidemic swept the area. It is during the latter part of the wet season that sickness reaches its most serious proportions, accounting for 7 per cent of potential activity time. Malaria, being endemic, is the most common cause along with other parasitic diseases of a debilitating nature; hence the seasonal pattern.

Table 6:3

Sivepe: incidence of sickness according to sex, age and cash cropping status

	Sex		Age				Cash cropping status	
	M	F	15-24	25-34	35-44	45+	Yes	No
Percentage of days sick to total survey days	5.1	4.2	2.3	2.0	1.5	8.3	1.8	8.8

Table 6:3 shows that the older people suffer most and also that non-cash croppers spend a significantly higher proportion of their time sick than cash croppers. While this is largely because the heads of non-cash cropping households are, on average, older than the others[1] it may well be that the non-cash croppers, lacking the initiative of the others, more readily assume the sick role.

Temporary absences apart, 4,990 man-days were spent in Sivepe, and during this time the villagers' activities occupied 28,975 hours, or 5.8 hours per man-day. Furthermore, virtually all these activities, except hunting, certain social activities and, occasionally, house construction, were confined to the daylight hours.

Patterns of activity and seasonal influences

The adult residents of Sivepe are active, on average, 40.6 hours per man-week, although, as Fig.6:2 demonstrates, there is a substantial variation from week to week. The actual range during the observed period was 34.4 to 51.3 man-hours.

[1] Of the 11 households resident throughout the survey the heads of the non-cash cropping ones are all in the 45+ age bracket while only 2 of the 7 cash cropping ones are.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

adjoining village, might receive land at a later date when that woman's daughter married, according to the rule, in her mother's home village. This kind of pattern is described by Hogbin (1967:24) for the Wogeo, who operate a system of land dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other than sisters or daughters. Land transfers may arise in a variety of social relationships which cannot be easily categorised. In Inonda, where the village domain is rather large, land is often lent by one lineage to another so that cultivation areas can be close together or contiguous. This is done because people like to work at not too great a distance from one another. In Sivepe, some land loans were made from a similar motive, mostly for rubber gardens. When migrants from Garombi[2] settled in Sivepe, several grants of land were made to them, both for taro and yam gardens. Such arrangements do not usually extend beyond the life time of the recipient although I do know of exceptions. If the gift endures, it signifies a close and permanent bond between families who may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very common, especially in the early years of marriage. A man was expected to help his wife's father with gardening and other tasks, and to stay with him for a year or so. During this period, the father-in-law gave the couple a garden for their own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the son-in-law regarded himself as the father-in-law's 'worker' or servant. We may therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place recipients in a position of social inferiority. Certainly, in many cases harvest gifts are expected from the borrowers of land but these tend to be small in size and to lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing
591 respectable status and exchangeable for services of a quasi-filial nature. The same
583 applies to most instances I know of uxorilocal marriage. Here it was usually the wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in
425 Sivepe in 1966–7 to families who had migrated from neighbouring Garombi.
166 Seeking an increase in population, Sivepe leaders frequently encouraged dissident minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is
428 very common. It is the rule that, in the absence of brothers and sons, sisters and
425 daughters should inherit land in preference to second degree kin. I know of several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[846] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

(ii) Labour services. Of the sample's activity time, 3.9 per cent was directed to rendering labour services, almost all of which were on a non-monetary basis. As with subsistence produce an overall balance is registered but, since assistance is frequently reciprocated in the form of gifts of food, this fact conceals substantial internal variations within the sample. Of labour services acquired, 55 per cent were directed to two men: Umbahapa, the oldest person and a widower living alone, and Linton, the most active and highly regarded of the men,[1] while eleven individuals received no assistance whatsoever. By contrast all but one individual gave some assistance to a member of another household and no one person accounted for more than 12 per cent of all assistance rendered.

Similarly, as demonstrated by data on the composition of work groups,[2] the range of activities over which labour services are exchanged is very restricted. Eighty-eight per cent fall within the subsistence sector and of these over half occur in construction and sago-making. Among cash cropping activities assistance is commonly provided only in the pulping and washing of coffee (see Fig.10:1). Such services are therefore largely confined to activities where, firstly, the labour resources of the nuclear family are normally inadequate for their effective completion, as, for example, construction and sago-making and, secondly, immediate compensation is expected, as, again, in sago-making, in harvesting yams, helping with the exchanging and butchering of pigs, and hunting.

(iii) Storebought goods. While products of the external sector circulate through the gift exchange system, acquisitions predominate and comprise 88 per cent of the total volume transacted. Goods received from the researchers apart, most derive from relatives currently residing outside the subsistence village context - either as settlers at Sangara or in wage employment. The data incorporate

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B, [See Category 461, pp. 114-117--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 125 592 between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

824 431 621 128 To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

● [739] In most of the households where there is an extreme imbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the imbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was [166] helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

824 431 571 621 Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

such cases much of the meat is distributed. However, if an individual wishes to organise a pig-feast he normally arranges an initial exchange of pigs with another person (frequently with one to whom he had previously given a piglet to look after until it matured), only killing and preparing the pig so received. Similarly, when a number of people are hunting together, whoever catches anything will immediately make a gift of it to another member of the party.

A small proportion of all transactions comprises goods given in charity to the old and infirm, one item falling specifically in this category being firewood. In such cases no return is expected.

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437 with immediate kin and with individuals receiving acknowledged support from her. In the first category are two daughters residing with their spouses' families (one in Sivepe and the other in a neighbouring village) during the spouses' absence in wage employment. The second comprises her brother's son and his wife, who resided briefly in Sivepe but were without adequate food resources of their own, and her sister's daughter's daughter, previously [431] cared for by Ciga, plus the girl's present guardian. Finally, significant gifts of food were received from a cross-cousin residing in another village.

Rodney Gill. With no significant food supplies of his own Rodney Gill only receives subsistence produce and disposes of his one abundant resource, labour. His exchanges are predominately with immediate kin - his brother and brother's wife residing next door - [431] and they are the sole recipients of assistance in cash cropping activities. However, help with subsistence tasks is given to, and gifts of food received from, a wider range of individuals, all belonging to households located at his end of the village. Rodney Gill has no important exchange relationships outside Sivepe.

437 Umbahapa. As an aged and partially lame widower Umbahapa is dependent on regular 431 gifts of food from his sister and a married daughter living next to him and he normally 737 disposes of little himself. This pattern was temporarily altered during the survey by the decision to fell one of his sago palms. This resulted in assistance being received from, and sago distributed to, a large number of villagers. In fact these transactions were only nominally Umbahapa's since he had delegated to his sister's son, Linton, the responsibility of organising the work and distributing the sago, while, prior to its distribution, the sago was held in his sister's husband's house. Participation in this venture was determined by individual need for food rather than kinship criteria.

Storebought goods, in particular an axe, provided the most important gifts from kin outside the village, such items being the ones he is least likely to obtain as a result of his own endeavours.

437 The cases discussed above outline the pattern of sustained interchanges among individual villagers. However, they do not indicate the whole range of an individual's close genealogical kin since the network of exchanges is directly influenced by considerations of distance and by the links established through marriage between the clan branches represented in the village. The first imposes severe restrictions on the movement of goods, particularly subsistence

743 366 [432] [438] The Public Health Department maintains a large base hospital at Saiho, 5 miles from Sivepe. A vegetable market at Saiho, originally established to supply the hospital, now serves a wider range of customers and at present is open every Thursday and Saturday (E. Waddell: personal communication). A few Sivepe people in our sample sell vegetables there regularly but seldom buy anything except lime (for chewing with betel nut). There are well-stocked trade stores at Saiho and Awala and a Savings Bank agency at Awala. In 1963 a trade store was established near Sasembata, by a member of Kongahambo village.

177 648 We could not complete this introductory sketch of local facilities and conditions without noting the traumatic experiences of the mountain Orokaiva during the life-span of the older men. Even an abbreviated description of local attitudes towards introduced economic and social changes such as we attempt later, would be inadequate unless it alluded to the likely deep impact of the following events.

First, the early government patrols, which encountered widespread opposition from the Orokaiva, were attacked most persistently by the 'Wasida' people who include the Sivepe villagers. Fighting was fierce and many of the old men we talked to had been close relatives killed or wounded.

Second, during World War II the paths of advance and retreat of Australian and Japanese troops crossed this area and the Orokaiva were 'drawn in as helpers, willingly or unwillingly, on both sides of the lines'.[1] [121] Some Orokaiva groups also became involved in intertribal skirmishes at this time - during our stay an imminent military exercise occasioned apprehensions among some Orokaiva about a possible resumption of dormant intertribal conflict at the time of the exercise.

Scattered for safety in the bush while the wartime campaigns swept the area, many people in the neighbourhood of Sivepe died of malnutrition. In addition, there was very thorough recruiting of local men for subsequent phases of the war elsehwere in the Territory. [101] In 1948 patrol staff reported that there was cause for concern in the continued decline in population.[2] At this

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[1] Keesing 1951:8. For an account of this episode see McCarthy 1959: Ch. 4, 10 ff., see esp. pp.110, 126n and maps pp.123, 357.

[464] [2] The war was said to have been a contributing factor; moreover, many villagers were employed as labourers on local European plantations and returned only at weekends; more important, the percentage of able-bodied males absent elsewhere as indentured labour had reached 31 and the officer accordingly recommended in 1948 that the area including Isoge, Isivita and Awala villages be closed to recruiting.

797 The majority of Papuan teachers remain unqualified teacher-evangelists although the mission is largely responsible for education in the sub-district at the primary, secondary and technical levels. A significant feature of their education programme as a whole remains its total disregard for agricultural training, except incidentally at the Martyrs' Memorial Secondary School where the pupils maintain a coffee garden as well as their own food gardens.[1]

[743] [657] Medical work has already formed a large part of the mission's activities and most mission stations operate a clinic and small hospital while a T.B. hospital is maintained at Embi. As with education, these activities are largely standardised by the Administration and the Department of Public Health is gradually taking over from the mission in this field.

(e) Recent developments in commercial agriculture

241 In 1941 a European planter obtained an agreement, under the Transactions with Natives Ordinance 1893-1935, to exploit the communal rubber plantations in the Awala area.[2] These had not previously been worked. Production commenced in 1943 and continues to date, interrupted only by the Mt Lamington eruption. However, the number of plantations incorporated in the scheme fell steadily and by 1965 only about 30 stands were being worked and tapping had become irregular. This is due partly to poor communications, partly to the fact that an agreement satisfactory to all parties was never arrived at and partly to the planter's own trees coming into full production.[3]

[245] The re-opening of Popondetta agricultural station in 1954 led to a renewal of interest in cash cropping with, in particular, the extensive planting of cocoa. By 1964 there were estimated to be 491,000 indigenous-owned coffee trees in the sub-district, 244,000 cocoa trees, 25,700 rubber trees (almost entirely the product of natural increase) and 108,000 coconut trees. This pattern of steadily increasing plantings only levelled off temporarily in 1959-60 with falling coffee prices, a shortage of coffee seed and inadequate marketing arrangements for cocoa. At the time labour

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[1] However, agricultural training at several levels has been available since 1955 at DASF's Popondetta Agricultural Station (now Popondetta Agricultural Training Institute).

[2] These had been established during the first world war in that part of the District considered too far inland for worthwhile copra production. There were 137 stands in all.

[3] For a detailed description see Rimoldi 1966:86-93.

station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.

[4] See Appendix 2.

Though most of the contacts between village people and the office-bearers arise out of official roles, the local priest, the assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

Section 3: Social Services: Health Assistance

657 Social services were provided partly by the government, partly by the council and partly by the mission. The services provided by the different organisations were so tightly interlinked and so systematically complemented one another that it will be convenient to present, in the present chapter, the overall system that was operating. This system was a product of government planning, while council and mission made specific contributions in their special areas of competence. In the next chapter, I shall look at these services again, from the viewpoint of general mission objectives.

657 In this interlocking of services, it was the government which met the bulk of the expenditure, as Table 13 clearly shows. On the 743 other hand, over Papua as a whole 60% of the hospitals were conducted by the missions and over one quarter of the aid posts. In the year 1964-1965, in the Northern District, the three administration hospitals had 3,671 admissions and 13,176 out-patients while the corresponding number for mission institutions was 3,286 admissions, 255,460 out-patients. It is therefore clear that the mission contribution to health services in the Territory is, in terms of patients treated, far greater than its budgetary contribution (2% of total expenditure on public health) would suggest. This disproportion is only slightly lessened if we consider the value of grants-in-aid and drugs supplied by the government to mission hospitals. Clearly, it costs a great deal less to treat a patient in a mission than in a government hospital.

743 The Saiho Hospital, which served all Orokaiva territory, was a sprawling settlement of a great many buildings, almost all made of [344] native materials. Only one building, as far as I remember, was in Australian style, with weatherboard walls; this contained the doctor's office, some other administrative offices, and was used for the few non-Papuan out-patients who occasionally called. The wards were all built of bush materials. Although the statistics show 2,500 admissions and 5,000 out-patients per year, there was only one physician at the hospital who at the same time functioned as superintendent and had a heavy administrative burden. He had a small expatriate administrative staff, and a few expatriate nurses. In the beginning of 1967, a second physician, a Papuan woman, joined the staff. The superintendent was also in charge of the training of aid post orderlies. Increasingly, Papuan nurses, trained in a three-year course at Port Moresby, are being used. A substantial number of hospital orderlies are employed.

758 It is not the policy of the hospital to offer ambulance services, 743 so that the village people are expected to make stretchers out of bush materials and carry in their sick. In practise, hospital and administration vehicles will frequently carry sick people to hospital and I have never actually seen the stretchers made. People would certainly know how to do it. Upon arrival, the sick person is interviewed by a hospital orderly; usually he is accompanied by a number of

A [See Cat. 116, p. 218--Analyst]

758 relatives who answer questions if he is too sick. The orderly speaks
743 the Orokaiva language; the interview gives most of the information an examining physician would require, so that the language barrier between the patient and the Australian physician poses no essential problem. Orderlies can, in any case, act as interpreters. This interview is conducted without much delay and the physician is usually able to see patients fairly promptly. The relatives meanwhile stay around to hear the news; sometimes they leave the patient and go back to their village, but often they stay around the hospital as long as the patient is there.

The hospital does not normally supply patients' food. This simplifies the operation; the patients' diet will in any case consist almost solely of taro. There is usually a relative around Saiho who will cook and take food to a patient. While this may seem an unduly casual procedure, it is valuable in relieving the tension of the patient as well as the relatives. If the complaint diagnosed by the physician requires major surgery or the attention of a specialist, the patient is flown to Port Moresby at government expense. I have seen this done several times and always rather promptly. The Port Moresby hospital is a modern well-equipped institution. Admission to hospital is free to Papuans.

A minor racial upset resulted from the circumstance that the medical officer in charge of the Northern District was a Papuan whereas the superintendent of the hospital was an Australian. It arose because theexpatriates, objecting to being treated by a Papuan physician, insisted upon being attended by the superintendent. The latter, placing professional esprit de corps above expatriate solidarity, would not allow the medical officer to be bypassed much to the chagrin of the planters (the public servants and missionaries did not seem to be too troubled). In an earlier chapter, I have commented on the unusually good relations between the superintendent and the Papuans.

Though Sivepe depended on the Saiho hospital for serious illness, minor accidents, malaria, dysentery, various other stomach ailments, skin troubles, etc. were treated at the small mission hospital in Sasembata. This hospital was lucky to have a competent assistant medical officer in charge in 1966. In earlier days, just after the eruption, the hospital was conducted by an Australian nurse and it was only since 1965 that Papuan assistant medical officers began to graduate and to be available for work in places such as Sasembata. I have already mentioned that the people were genuinely pleased at the improvement in service and expressed their pleasure by building a new hospital. This was constructed out of bush materials, contained about 12 beds also made of bush materials, and was equipped with a small selection of basic drugs supplied by Saiho hospital.

Whereas Saiho hospital was conducted by the government, Sasembata hospital was a mission responsibility. The Sasembata staff was paid at mission rates, far lower than the government rates. For instance, the assistant medical officer received $11 per month, whereas the

756 743 government scale in 1965 was $1000-$1800, per annum. The orderlies assisting the AMO received $1 per month. This did not necessarily mean that the AMO lacked the qualifications to get a government job; he could easily have obtained one.

Every day some dozens of people would present themselves with minor and sometimes major ailments. They would be bandaged, given a pill or some other simple treatment. Very sick cases were referred to the hospital; most days, a car would come to the mission station and the AMO could get transport for his patients. The beds were occupied for the more serious cases who could not well go home but who did not need the more specialised treatment of Saiho. The nursing aid never stayed in the hospital overnight but one or two relatives of the patient usually did; if the patient's condition deteriorated, the AMO could always be called over as he lived on the mission station. (See Map XI.)A

743 [344] Inonda was served by one of the medical aid posts which are being built all over the district. This was at Hohota, next to the mission school. Such aid posts are built of milled timber and paid for by the Ngaturu Council; the government may subsidize these posts. The salary of the aid post orderlies, who work on a part time basis, is paid by the Council also, but in 1966, the government paid a 50% subsidy on these. Most of the large resettlement villages (Hohorita, Koipa, Kiorota, etc.) had them, or were getting them, three posts being added in the year 1966. The smaller villages had to share aid posts; thus, there were no plans to build one at Inonda, and people were expected to walk the three miles to Hohota for treatment.

758 743 The standard of aid was not always as high at these posts as it was in Sasembata. Hohorita had much trouble replacing an orderly who had left. Inonda found it difficult to get service; on one occasion when we went to the aid post, we heard, upon arrival that the orderly had just gone to town for the day. On another occasion, he was in his house; he had been hunting, was tired and would not see anybody. This would have been a rare occurrence indeed at Sasembata. The orderlies regarded themselves as part-time employees who chose their own working hours. This would have been reasonable (for average cases) were it not for the distance between Inonda and Hohota. How often will a man walk six miles to collect a single malaria pill? A more serious problem is that the orderlies are not nearly as well trained as the AMO; hence, they can hardly be expected to carry out diagnosis.

755 People were greatly taken with the medical services available; they were not a replacement but an addition to traditional magical practises. When my interpreter was sick he was very pleased to swallow the pills I gave him, but his house was full nonetheless with numerous herbs collected for his complaint and these were being boiled in a pot or otherwise ingested simultaneously with my medicine. The Orokaiva view is that medicine, given for the purpose of curing, will be effective if it is stronger than the sorcerer causing the illness. It has been noticed that this is sometimes the case with Western

A [See Cat. 116, p. End Map 10--Analyst]

755 medicine, though by no means always. Bandages were especially popular;
they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants
554 to be helpful would be treated thus, and it has of course been noticed
that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

The evacuation camps provided a good opportunity to put a
744 public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
[146] at Ilimo, by means of distribution of sample tubers and seeds and the
teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepe, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

Horticulture. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

755 medicine, though by no means always. Bandages were especially popular; they were worn as status symbols and as dancing ornaments. Nurses and
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753 explained away because the nurses and physicians usually do not understand the fine points of sorcery; only the Orokaiva have this knowledge.

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The evacuation camps provided a good opportunity to put a
744 public health programme into operation, and this opportunity was taken. No regular anti-malarial preventive treatment was given because this clearly could not have been continued after the camps were closed--and it was feared that anti-malarials might lower natural resistance. On the other hand, everyone at Ilimo was given prophylactic treatment against hookworm. Unfortunately, this medicine had the effect of "making people feel a little drunk." One man, the sole male survivor of a large family killed during the eruption, went berserk through the medicine and caused a near riot. Mr. Kaad then abandoned his campaign against hookworm at Ilimo, reviving it later, in the Saiho period. Prophylactic treatment against hookworm has not been continued because reinfection constantly occurs. The camps provided a practical object lesson on the Western ideas of treating waste matters, sanitation and water supplies, a lesson which no doubt bore fruit some years later, when the Higaturu Council had money and an ideological base for bringing about such innovations. Finally, the introduction of sweet potatoes
[242] at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health objective: it was done because the yellow and red varieties of sweet potato are particularly rich in vitamins in which Orokaiva diet is supposed to be often deficient. Today, some of this sweet potato is grown in Sivepo, though on a small scale, while plantings in Inonda are somewhat more extensive. (The sweet potatoes resist drought better than taro.)

The most active public health programmes I saw in 1966-67 were directed at: malaria control, infant health, village hygiene. The key figure in public health improvement at Sivepo was the health inspector employed by the Higaturu Coincil. This man was expected to cover the whole of the Council area, and spent much of his time touring villages. As his home was at Garombi and he had many relatives in Sivepo, he made frequent visits. Sivepo caused him little trouble, he told me, as waste matter was thrown into deep holes, everyone had a lavatory and the place was kept clean in the prescribed way. On

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

The health authorities had successfully campaigned against the [853] Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to mash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

TABLE 13

744

TOTAL EXPENDITURE ON PUBLIC HEALTH
IN THE TERRITORY OF PAPUA DURING THE
YEAR ENDED 30TH JUNE 1965

(Source: Territory of Papua Report for 1964-1965: 235)

Administration	$	$
Public Health - General	2,902,012	
Medical Aid to Missions	94,698	
Maintenance of Hospitals, Engineering, Water Supply and Sewerage	320,988	
[364] Construction of Water Supply, Sewerage, Hospitals and Ancillary Buildings	1,098,416	
Building Grants-in-Aid to Missions	31,220	
Purchase of Hospital and Medical Equipment	81,730	
	---	4,529,064
Missions (Ascertainable Expenditure from their Own Funds)		90,012
Local Government Councils (From their Own Funds)		44,108
TOTAL		4,663,194

512 [751] [164] Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433 Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

The organisation of work by households

592 461 Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887] At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

as a first step in their wider rehabilitation. Lectures were given by Europeans, adult illiterates were taught the three " r's," sports were organized, and as a welfare measure the old people were given prepared meals in a " soup kitchen." Once again the response was enthusiastic, indicating a real demand. As refugees moved out of the camp back to villages, it was common for young men who had missed their Mission schooling, or who considered that schooling to be insufficient, to return to Ilimo for the sole purpose of continuing their instruction. Unfortunately, under the unsettled conditions they had to be sent home again.

As soon as the danger area had been determined villages outside it were re-started, leaving only 1,500 people at Ilimo by April. These 1,500 people were not permitted to return to their village sites except under special passes to obtain garden produce. An administrative officer was detailed to undertake research into native land tenure and social groupings in the area with a view to determining sites for re-settlement.[1] As a result of his recommendations these refugees were returned to certain areas of land which they were said to own, or which had been granted to them by neighbouring villages. Women remained at Ilimo until shelters had been erected for them, but by June they had rejoined their husbands and the camps were evacuated. A Government patrol post was set up at Saiho in the centre of the evacuation area, and medical facilities were transferred to Saiho from Ilimo.

The policy behind these moves was aimed at re-establishing gardens in the shortest possible time, and the building of an improved style village-system. In addition consideration was given to the possibility of large-scale community development. But there were many difficulties in the way, and the method of carrying out the policy often created further difficulties.

In *Orokaiva Society* Williams characterizes the people as being fierce fighters but gentle and harmonious in their domestic and intra-group relations. Whether or not that was true twenty years ago, Europeans with recent experience of them say that they are now highly excitable, with rapidly inflamed tempers which, however, quickly subside. When under the influence of temper they are said to be violent, and to vent their violence on people near at hand, particularly wives. There is a tendency towards suicide in the case of disappointed love or the loss of children, and they will throw hysterical fits. In view of these conflicting accounts it is impossible for me to judge whether the emotional activity I observed after the volcano was a mere passing phase or represented deeper emotional states. At the same time there were a number of influences present which certainly did nothing to reduce nervous tensions.

It is not difficult to describe these. The people were in refugee camps, and the atmosphere of refugee camps is almost always one of strict control, in contrast to the freedom of village life. Work had to be found to keep people occupied, and much of it was camp erection work that had no clear or immediate relevance to the desire

[1] See memorandum by H. T. Plant, " Re-Establishment of Isivita Villages," March 24, 1951, with Map and Appendices on Land Ownership, Clans and Tribal Groupings.

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a lavatory and the place was kept clean in the prescribed way. On

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
[578] woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in
887 transmigration of souls. But this transmigration occurs through the mediation of
241 the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given
241 away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is
774 believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst suffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data:
657 people argued that the Europeans would not necessarily know what would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between the camps and the home villages. At Cape Killerton and Oro Bay, [823] the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also stated in Keesing's report. My informants also ascribed sickness [753] of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the [164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much [753] more" frequent than in any camp. It is significant, however,

731 that the Orokaiva explained these cases not by sorcery (as they
● [153] regularly do) but by homesickness.

The administration, in any case, seemed to be concerned about the malaise of refugees kept in coastal camps. All Australian informants to whom I spoke agreed that it was this malaise (and pressure by the Orokaiva) which led to a shift of the Eroro Bay refugees to Popondetta at the earliest opportunity (in April). A few weeks later they were allowed to go to Irihambo, a new settlement at the boundary of Sangara territory. Thus, one of the variables of special significance in the comparative study of displaced communities--removal from the home territory--was of minor significance in the case of the Orokaiva. Almost as soon as the immediate danger of the eruption was passed, people pressed for a return to their home territory and this pressure was not
[182] resisted for long. If the eruption had a lasting effect on Orokaiva norms of behaviour and belief, this was not due to changes of location, but rather to the experience of the disaster and the unexpected scope of Australian assistance, and to new residential patterns introduced when the displaced communities were resettled.

657 The government had long followed a policy of consolidating
361 hamlets and villages, not only in Orokaiva territory but in all parts of Papua. This policy existed long before the government began to pursue actively its present objectives of social and economic development. When I asked senior officials of the administration for the reasons behind this policy, I was always told that village consolidation made patrolling and the maintenance of law and order easier and that regulations concerning hygiene, housing standards, road building were more easily enforced. It was the practice, well before the eruption, to keep lists showing the names of all inhabitants of the Orokaiva district. These lists were subdivided into village lists; a patrol officer visited (and still visits) each listed village once a year and all the persons listed as living in that village must then report themselves present. Deaths and births and marriages are recorded. It seems to have been the practice for patrol officers to instruct groups living in small hamlets to join other village units. Thus, in Sivepe many amalgamations of population groups occurred over the years and the people claimed that all these amalgamations were made in response to government instructions. Even if this is not always strictly true, there is nothing novel in the pressure put upon Orokaiva after the eruption to go and live in consolidated villages.

On the other hand, there were several factors favouring such
[731] a development. The first of these was the continued restriction placed upon residence near the mountain. Even after May, 1951, there were several thousand Orokaiva who could not return to their old village sites. The villages where they were settled were

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Hargaret's Hospital, Eroro (Table 11).[A] The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, [146] gastro-enteritis, influenza, scabies and other skin diseases are also extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including one in Sivepe during the time of my stay. People are extremely anxious [753] about disease, even mild attacks of influenza or of malarial fever. [754] the cause was always thought to be sorcery.

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation
731 camps, except for infections due to bad water supply at Cape Killerton camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned
731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

A [See Cat. 116, p. 216--Analyst]

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
[821] this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

755 medicine, though by no means always. Bandages were especially popular;
they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants
to be helpful would be treated thus, and it has of course been noticed
554 that they relieve a great deal of discomfort even though Western
theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not under-
stand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was
less available transport to reach them with, the chain of aid posts
built by the Higaturu Council did not yet exist, so that outside the
government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a
public health programme into operation, and this opportunity was taken.
No regular anti-malarial preventive treatment was given because this
clearly could not have been continued after the camps were closed--
and it was feared that anti-malarials might lower natural resistance.
On the other hand, everyone at Ilimo was given prophylactic treatment
against hookworm. Unfortunately, this medicine had the effect of
"making people feel a little drunk." One man, the sole male survivor
of a large family killed during the eruption, went berserk through the
medicine and caused a near riot. Mr. Kaad then abandoned his campaign
against hookworm at Ilimo, reviving it later, in the Saiho period.
Prophylactic treatment against hookworm has not been continued because
reinfection constantly occurs. The camps provided a practical object
lesson on the Western ideas of treating waste matters, sanitation and
water supplies, a lesson which no doubt bore fruit some years later,
when the Higaturu Council had money and an ideological base for bringing
[242] about such innovations. Finally, the introduction of sweet potatoes
[196] at Ilimo, by means of distribution of sample tubers and seeds and the
teaching of methods of cultivation, had a definite public health
objective: it was done because the yellow and red varieties of sweet
potato are particularly rich in vitamins in which Orokaiva diet is
supposed to be often deficient. Today, some of this sweet potato is
grown in Sivepe, though on a small scale, while plantings in Inonda
are somewhat more extensive. (The sweet potatoes resist drought better
than taro.)

The most active public health programmes I saw in 1966-67
were directed at: malaria control, infant health, village hygiene.
The key figure in public health improvement at Sivepe was the health
inspector employed by the Higaturu Council. This man was expected to
cover the whole of the Council area, and spent much of his time
touring villages. As his home was at Garombi and he had many relatives
in Sivepe, he made frequent visits. Sivepe caused him little trouble,
he told me, as waste matter was thrown into deep holes, everyone had
a lavatory and the place was kept clean in the prescribed way. On

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

628 728 574

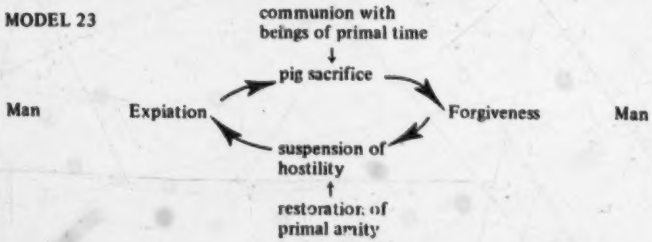
This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

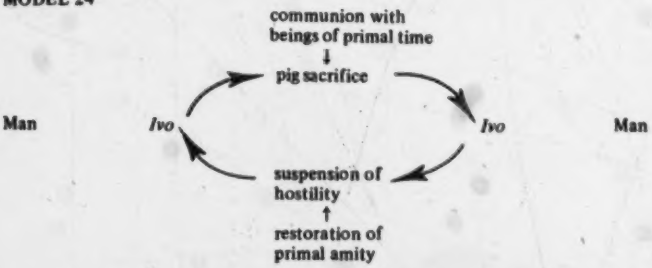
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24



In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

574 crop failure at Hohorita would be explained as resulting from sorcery inflicted
621 upon the people collectively by a sorcerer from one of the traditionally hostile
[789] villages near which the Sangara have been forced to live since the eruption. The
[754] sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 Yet it is clear, from the evidence presented here, that a feast does not serve to
628 set up warm and affective relationships between collectivities: the host and guest
437 communities, as such, do not actually eat together or converse with each other
572 closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 While the evidence presented above is consistent with model 25, A that model does
628 not account for all the facts under consideration. If we take a synchronic view of
778 the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

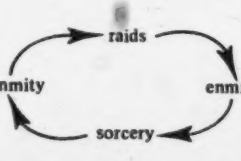
A [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The evidence presented in the previous section shows that we are in fact concerned not with one exchange cycle (i.e. model 25) but with two. The second cycle represents the exchange of sanctions which preceded the feast. Though our data with regard to both the Togahou-Sivepe and the Sangara-Koipa (Isivita) wars are rather fragmentary, we do know that there were a number of raids, the last of which are still known to informants today and date back no more than 60 years. Each side is reported to have raided the other; there were killings; there was cannibalism; women were abducted. Sangara admits having abducted Isivita women but denies that any of its own women were abducted; abductions between Sivepe and Togahou can be shown to have been mutual. The last killings were too long ago for me to be sure which side had made the last raid and which side had, in the finish, a favourable tally of killings. Sivepe and Hohorita both claimed to have come out on the winning side, but I had no opportunity to check the evidence with Togahou and Isivita. If we accept the Sivepe and Hohorita versions, both these villages were in the unpleasant position of having enemies who were still seeking revenge.

Due to the restraints of the *pax Australiana*, this revenge could not take the form of an armed raid, but sorcery was still a possible form of relaliation, as the Australian authorities could not easily detect this. Both Sivepe and Hohorita might therefore justifiably fear sorcery from their old enemies, supposing they wanted to even the scores. There is no evidence, to my knowledge, that either Togahou or Koipa had such ideas in mind, but whenever misfortunes happened to Sivepe people in Togahou, or to gardens in Hohorita, the thought of sorcery used by old enemies seemed reasonable to the Orokaiva. We may represent the exchange of sanctions, prior to the feasts, in the following diagram:

MODEL 26



In order to account for pig sacrifice, we require both model 25 (showing the social exchange achieved by the feast) and model 26 (showing the circumstances which made Hohorita into an 'offender' and Koipa into an 'offended' party). In addition, we need to explain why the groups involved decided to adopt new objects of exchange in their social relationship. Until recently, the two sides exchanged enmity which they mediated by various penalties such as raids and sorcery. At the time of the feast, however, we find the same two parties exchanging expiation and forgiveness. It is possible to invoke a number of historical contingencies to explain this change. Informants liked to tell me that the change was due to the effect of the *iji eha*: the fact that everybody was baptised and moving into a new age when old enmities should be forgotten. I

A,B [See Category 574, p. 148--Analyst]

574 628 could not help noticing the connection between the reconciliation and the simultaneous fear of sorcery to which I have already referred. But perhaps neither historical explanation is necessary.

721 728 It seems clear from Williams' evidence and from the little I could reconstruct in 1966 that Orokaiva history had been one long sequence of hostilities and reconciliations. The reasons for the reconciliations were various: the legalising of marriages after abductions, the expediency of forming alliances with old enemies when faced with the threat of new enemies, a desire for peace after some Pyrrhic victories, and so on. On the level of myth we find the same message: the permanent state of *isoro* was interrupted by periodic feasts (see model 1). The series starts, according to myth, with a state of primordial peace. This is followed by *isoro, peka, isoro* in permanent alternation. We may represent the total pattern by the series of congruent ellipses drawn on parallel planes directly above one another (see Model 27).

I have presented transactions in historical time by a series of four transactions, the first and last of which are purely exchanges of penalties. Cycle 2 represents an agreement between two opponents to cease warfare and make peace (*peka*). This cycle would normally start with a message, sent by the original aggressor, that he is ready to make amends. This message would be followed by a visit from the other party to the aggressor, when the latter would promise to hold a feast. A customary practice at such a meeting was for the aggressor to plant a cordiline (*poponda*) in evidence of this promise. The aggressor would then arrange a pig sacrifice.

Cycle 3 would be marked by peace (*peka*). The victim of the original aggression would give a return feast which was probably obligatory. If the basic end of pig sacrifice were communion or expiation, no return feast would be necessary, but as we have found the basic end to be the establishment or restoration of social relations, on a basis of equality, there must be a balance of prestations. Each side must sacrifice pigs; each side must dance for the other; each side must dispel black magic from the gardens of the other. Each side must expiate past offences and each side must extend forgiveness. But the model shows that such reconciliation is not expected to be more than temporary although, of course, friendship between villages can sometimes be maintained for protracted periods and there is no rule against holding feasts before a quarrel has reached deadly proportions.

571 602 578 754 The model applies not only to inter-village relations but to all social relations in general, consanguineal and affinal relations included. Quarrels between consanguines differ only in their relatively greater reluctance to resort to an exchange of penalties and greater readiness to settle a quarrel before it has gone too far. But here a great deal is said to depend on the type of kin relationship holding between the quarrelling parties. A father or mother will rarely use sorcery or other harmful measures against his or her children. Certainly they will not do so until they have, in the course of the quarrel, broken off social relations by showing their plant emblem. Usually a quarrel does not go beyond the breaking off of relations, but if further unpleasantness should occur and if the person who has caused anger is experiencing some misfortune, sorcery will at once be suspected. The same is true in case of conflict with the father's or the mother's brother, though the showing of the plant emblem does not, in such

A [See Category 574, p. 58--Analyst]

[TEXT CONTINUED ON PAGE 158]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

571 conflict necessarily precede recourse to sorcery. It is believed, however, that
602 such relatives will not usually carry their resentment too far. As soon as the
518 afflicted person makes his apologies and shows himself ready to make a pig
754 sacrifice, such sorcery will normally case. The same applies to the father's sister, though she has to be watched more carefully than the others, as she is very quick to resent neglect and seek retribution. She will be restrained, however, by the deep love she is expected to bear for her brother, so that she may be expected to agree fairly easily to a settlement. It is thought that mother's sisters are more dangerous as their bonds of family loyalty are much weaker. All these relatives
[431] may cause disease, failure of gardens, bad luck in hunting, etc. All the relationships give rise to the same type of positive and negative reciprocity cycles: if proper prestations are made from time to time, positive reciprocity is maintained, but neglect over a long period will create anger and a negative reciprocity cycle.[5]

In the case of certain close relationships, restraint in acts of negative reciprocity does not arise from any rules limiting the expression of anger, but rather from the existence of other close social relationships which would be threatened if the expression of anger went too far. Thus a mother's brother would be restrained in wreaking revenge upon his nephew by the risk of offending his sister if the revenge were excessive. It is hard to illustrate these principles of exchange with concrete evidence, as I do not know of any actual harm being done between relatives. I know only that misfortunes which I would ascribe to natural causes tend to be explained by sorcery on the part of a neglected relative, and that the neglected relative then asks for or receives a pig or other animal.

571 Prestations between affines have a similar explanation, though the pattern of
578 hostile action and retaliation between affines is somewhat different. The first
602 hostile action in the series tends to be the abduction of a woman for purposes of
583 marriage. This is defined as a hostile act directed against the woman's kin group. The girl's parents look for her and show considerable fury when they find her, wreaking havoc in the village of the abductor. One may say that this is the first cycle of exchange in an affinal relationship and it is totally negative. The abductor's kin group offers a present of ornaments called *sovu hambo*, and promises a bridewealth of acceptable proportions in return for which the bride's parents depart in peace.

It should be noted that, though this second cycle contains an exchange of positive (rather than negative) objects of mediation, the bridegroom's people remain in the position of debtors, while the bride's parents continue to harbour their anger. All they have agreed to is the continued residence of the bride with the bridegroom's people, pending a satisfactory settlement. The third cycle is constituted by the payment of bridewealth, including pig sacrifices, on one side, and the transfer of the usual conjugal rights, including the right to the bride's offspring, by the bride's kin group. On the level of social exchange, however, there is still no exchange in benefits. The relationship remains one between creditor and debtor, as the bridewealth does not wipe out the anger of the bride's parents nor expiate the offence of abduction. This point will be explained further in the chapter on marriage.

It suffices to say at this stage that pig sacrifices made by the bridegroom and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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5 This interpretation of Orokaiva sorcery appears to be largely supported by Lawrence and Meggitt who argue that in societies with 'stable social organisation' (among which they count the Orokaiva), sorcery accusations act 'both as an important medium for expressing enmity and as an excuse for initiating warfare, which is ultimately the most effective means of relieving feelings of aggression' (1965: 17). The authors appear to believe that sorcery can be explained along psychological lines as fulfilling a need for channelling aggression (*ibid.* 18). I find it hard to see how the specific facts of sorcery behaviour (and especially the transactional patterns described in these pages) can be explained in terms of universal needs. Sorcery is only one of many substitutes for physical aggression and all these substitutes, in one way or another, serve to maintain a relationship of negative reciprocity.

Accusations of sorcery probably have a cognitive as well as an effective 'function', for they imply an explanation of misfortunes for which no natural cause is known. Furthermore, such accusations turn misfortune into an object of mediation in (negative) social exchange. The assumption is made that the misfortune will continue until the relationship with the sorcerer is basically changed, either by his defeat or by reconciliation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. [798] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out [266] among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The [754] total list of *aguma*-villages as given to me had a striking resemblance to another

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list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

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It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

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We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

729 881 537

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20), we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

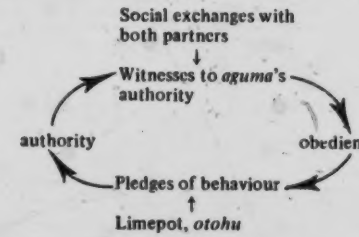
A [See p. 135, Cat. 431—Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

729 881 [537] they would always add credibility to the words of the *aguma*, as their authority would not be questioned by the initiand.

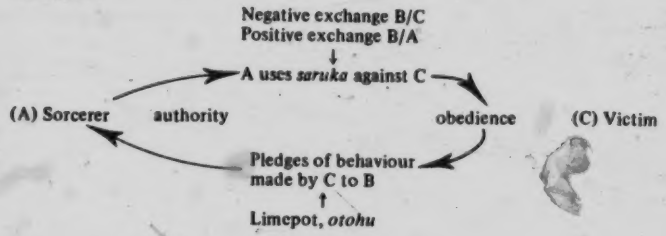
The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



754 626 [628] If the initiate should later break a pledge, the wronged person may call upon a sorcerer whose position I have suggested to be symbolically equivalent to that of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

marriage, even though actual cases recorded in the three village investigated are only 5 per cent of the total for true siblings and the proportion is declining. Sister exchange marriages were considered best because relations between affines were apt to be the most harmonious and also because no bride price was necessary. As any trouble that occurs in family life is apt to be ascribed to sorcery by affines, it was thought that families founded on sister exchange marriage would be the most likely to prosper in respect of health, stability and economic success.

Furthermore, there is an explicit rule of preferential bilateral cross-cousin marriage. All informants were agreed that the most proper marriage partner is one who is addressed as *simbo* before marriage; Williams defines *simbo* as 'child of the father's sister; children of all *tata*; child of the mother's brother; children of all *nobo*, i.e. cross-cousins' (1930: 109). Out of twenty-two married couples resident in Sivepe, fourteen actually called each other *simbo* before marriage. Williams notes that *simbo* marriages were extremely common in the communities he studies (1930:132), but does not seem to have been told of the preferential rule.

The existence of such a rule can be inferred not only from direct statements, but also from investigation of the primary meaning of the term *simbo* itself. The primary meaning is not cross-cousin and we shall later see that the two terms do not entirely share the same field of reference. *Simbo* is an arrangement of marriage. A *simbo* may be established when a boy's parents bring part of a bridewealth to the parents of a girl they want their son to marry. If the arrangement is acceptable, the parents help in the garden of their son's future affines and continue to send food. Such an arrangement is usually made immediately after the rituals following the girl's first menstruation. If the *simbo* is broken, the girl's parents must pay back the gifts. In a secondary sense, the word *simbo* also refers to that category of consanguines with which betrothals of the kind just described can be properly made. All members of that category are either cross-cousins in the strict sense, or consanguines with whom kinship can be traced neither wholly in the patriline, nor wholly in the matriline.

There are also rules establishing preferential marriage between specific villages. Though Williams did not notice the presence of this rule among the Orokaiva, he described a very similar rule obtaining among the Koiari, where he spoke of 'reciprocating pairs of groups' (1932). Under this arrangement, two local clan groups or exogamous lineages give wives to each other from generation to generation, each side supplying as near as possible an equal number. A group that has received a wife is expected to send one back in the same or the next generation. If the return prestation occurs in the same generation one may speak of sister exchange; if it occurs in the next generation, the rule is expressed by the Orokaiva as *eta data jimbari*, i.e. marrying in the mother's village.

This rule applies especially to girls who are expecting to go to the village from which their mother has been taken, thus balancing accounts between reciprocating pairs of groups. Such a rule cannot properly be described as a prescription for patrilateral cross-cousin marriage, as there is at the same time a preference for sister exchange, so that the total pattern of marriages between reciprocating pairs of groups is ideally (and in fact commonly) bilateral. I found that 35 per cent of Orokaiva marriages now in force were contracted in accordance with the rule of *eta data jimbari*, for a period not less than two generations.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 science' as long as I may add the qualification that this 'pseudo-science', at least among Orokaiva, is mainly concerned with the manipulation of social relations. [754] As all misfortunes are explained by Orokaiva as sorcery, and all sorcery serves to mediate negative reciprocity, i.e. enmity either on the part of the living or the dead, therefore all counter-magic is similarly part of a cycle of negative or positive reciprocity. If the counter-magic is made by the victim of sorcery, it mediates a continuing negative cycle. If the counter-magic is made by the same person who made the original black magic or *saruka*, this is done in response to conciliating gestures by the victim and signifies that the exchange has shifted into a positive cycle. Sorcery is not considered good or evil in itself nor does Orokaiva society have clearly defined norms to govern behaviour in most of the situations where it occurs.[9] It is easier to assume that the sorcerer (or his principal) has one idea of what the norms are and the victim has a different idea, and that the society will continue to have conflicting sets of norms irrespective of how the particular conflict is resolved. In some circumstances it is advantageous to shift the social relationship into a positive cycle, whereas in other circumstances it is more advantageous to fight magic with magic.

Having thus acknowledged Malinowski as one of the ancestors of the present work, I should also acknowledge the theoretical work in both sociology and anthropology which helped me to reanalyse Malinowski's data in the manner instanced above. Neither Lévi-Strauss nor his immediate followers were much help in this respect as they have not, until very recently, given detailed attention to questions of process. The study of exchange cycles, as developed in the present work, would be of little value if they were nothing but consequences of enduring structural regularities.[10] In that case there would be no difference between my exchange cycles and the 'situational analysis'[11] developed by Gluckman, Turner and van Velsen (1964). 'Situational analysis' provides meticulous data concerning conflicts involving individuals but it is always assumed that the resolution of the conflicts reasserts rather than changes the existing corporate norms.

We have seen, however, that the corporate norms of Orokaiva society are constantly changing. Clans fuse and split, relations with uterine kin go through positive and negative cycles, moiety systems arise and disintegrate, enemies become partners in alliance systems while the only enduring corporate group, the entended family, where 'situational analysis' would yield satisfactory results, is too narrow a unit for the student of the dynamics of society. Within the extended family, conflicts may actually reassert and strengthen group values. But even in a four-generation agnatic group splitting up of the group after a quarrel is normal and far from being a failure of solidarity. It is part of an atomising process which causes no crisis in the overall exchange network.

In these circumstances the prevailing pattern of social relations can be accounted for most easily by reference to a past sequence of positive and negative exchange cycles. When I speak of structure I am not referring to this ephemeral pattern of social relations but to the laws underlying the generation of the positive and negative cycles. In my discussion of the marriage system, I presented the structure as cyclical alternation of direct and complex generalised marriage exchange. One may call this the law of the operation of the marriage system. On the other hand, when I described the prevailing social organisation of

731 361 food from their abandoned gardens which they found in good condition, apart from the uncontrolled growth of weeds.

No doubt minor adjustments in the distribution of land rights were made in the course of resettlement of the land around Sivepe when the people returned after a year's absence. But they would not have been faced with the major problems met with in the crowded resettlement areas with large numbers of immigrants. When the people of old Sivepe-Pamba returned from the evacuation camp they re-established their village on its old site.

613 361 [578] [177] It was not long, however, before the Timumu people became involved in a protracted dispute with members of Kongahambo village (a new resettlement concentration near Sasembata), over garden damage caused by pigs, and in order to avoid more trouble they decided to move further away to build on their land at the present site of Sivepe village. The members of Berekipa and Arehu lineages and of Seho clan remained in the old village until a Patrol Officer asked them to reunite with the Timumu people. Since the Timumu were not keen to move back and since the occupants of the old village agreed with the Patrol Officer's assertion that it was poorly drained, these Jegase and Seho people moved to Sivepe in 1953. They were given permission to build by the Timumu lineage which owned most of the land on the site.

[754] Meanwhile the Bebehupa had returned after the eruption to Binduta where they lived with Usohu people for about 8 years. Then friction between the 2 groups became too great and, following accusations of sorcery, 4 Bebehupa households came to live on pockets of lineage land within the new Sivepe. Their houses are not aligned with those of the Jegase men who arrived earlier but the other 2 clan branches tend to occupy distinct sections of the village.[1]

614 361 (iii) The distribution of other clan branches. One Jegase clan branch lives several miles west of Sivepe in Hururuta village. Another group of Jegase splintered from the local branch of the clan after protracted disputes and settled at Kakendetta near Popondetta. The Sivepe people do not know how they acquired land rights there but insist that they voluntarily relinquished all their original rights. The clan is represented in Kiorota, Nahihita and Isoge; Plant (1951: Appendix 3) also reported that there were members of the clan in Kokitate and Pondohe.

A large branch of the clan now at Suin village is said to have moved down from the slopes onto unoccupied land which lay between

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[1] The houses of parent and 1 son or a married daughter are usually adjacent but those of additional children are often located elsewhere.

62] At the time of resettlement these writers drew attention to the possibility that the composite villages would eventually be disrupted either by aggravated friction between members of different clans who had not lived together before or by the unsuitable siting of the settlements with regard to access to the villagers' own gardening lands.

[154] [166] The first problem was solved by individual mobility. Our own experience which is confirmed by the observations of patrol staff is that fear of sorcery, which follows tension within the village, is one important example of the vicissitudes of social relationships which are responsible for much of the movement from one village to another at present.[1] But the problem of the location of gardens in relation to residence was solved in time wherever people moved from the main road or other temporary settlement areas to new sites on or near their old land.

This land use problem was peculiar to the exceptional resettlement conditions and Keesing seems not to have considered this point when he concluded that the formation of larger villages was incompatible with the economic base of shifting agriculture. His prediction that people would continually 'hive off' into hamlets of a dozen houses consistent with their familiar system of seasonal shifting gardens does not seem to have eventuated.

The scattering of an individual's land interests over a neighbourhood facilitates mobility between adjacent villages because after moving, for whatever reason, he can often continue to [166] exploit rights to those lands which are at a convenient distance from his new village. We found, however, no evidence to suggest that shifts of residence are determined by a continual need to clear new areas for cultivation even if these areas lie scattered near a number of villages.

171 Residential mobility is not as closely correlated with changes in gardening sites as it is among the Chimbu even though, as 241 Williams says, the Orokaiva move their garden sites frequently. 361 Among the Chimbu, on the other hand, where a long cultivation period usually of at least 4 years, sometimes broken by short fallow periods (when the area of cultivation within the plot is shifted), is followed by long fallow periods of varying length up to about 20 years (Brookfield and Brown 1963:52), 'the principal factor determining residence is land; most men prefer to live near their main blocks of currently cultivated land' (ibid:97).

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[1] Other examples are disputes between kin, and life-crises. About 1956 the oldest Bebehupa man left Binduta to spend his last years at Wahihita, an area to which he has been emotionally attached for much of his life. One or 2 close kin went to look after him and a series of other Bebehupa have followed.

8: Waddell & Krinks B-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

591 [614] [166]

may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

423 [428]

(iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

614 423

244 423 [613]

This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[754] [578]

[562]

[2] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[311] [614]

[3] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[224]

[4] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

villager it is said that the aggrieved party will place his erahu on the path leading to the land concerned as a warning to the offender. If he does not take heed the aggrieved will have recourse to sorcery or physical violence, or he may (less commonly) bring it before the assembled men of the village. If all are agreed on a course of action but the offender refuses to comply, he may be evicted. Two men of the subordinate subclan were threatened with eviction for alleged theft of produce shortly before our arrival. No further thefts occurred.

At present the only body with effective power to settle disputes is the Department of Native Affairs to which the people frequently have recourse. Just prior to our arrival one man had reported another villager for animal trespass and damage to his crops. The matter was settled by an informal payment of damages arranged in the presence of a member of the official patrol staff.

Current problems in relation to the enforcement of rights are discussed on pages 76-77.

position will be insecure.

The man who resides in the village by virtue of the fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

Partly as a result of the uncertainty of their tenure the villagers are again considering shifting the village site.(2) Several possibilities are being considered. Some wish to move to land held by an Andiriha sub-clan which lives at Hohota and which has close links with the Inonda sub-clan. These point out that they have no certainty of tenure for their cash crops on the existing land, whereas at Hohota there is land which is

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(1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

(2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

tween sub-clans or villages.(1)

Officers of the Department of Native Affairs are still in some instances able to effect reconciliations or to settle disputes despite their lack of legal powers. This is not only because disputants are sometimes prepared to accept the judgement of a disinterested third party, but also because almost all Orokaiva people we have met are of the opinion that patrol staff do have the power to enforce their "recommendations". The fear of sorcery is still recognized as a sanction against transgression of property rights and informants quoted instances of sorcery having been used to punish transgressions of fishing rights. It is a commonplace that where adequate alternative facilities for settling disputes are not available, sorcery tends to increase. Though it is certainly extant in Inonda we have no evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans would increase social stability and security of tenure, but in the course of time, due to population increase in some clans and decrease in others, it would become increasingly unrelated to clan needs. It is therefore necessary that any action to define boundaries and ownership should be associated with facilities for the transfer of rights between clans, or between individual members of different clans.

In the pre-contact era warfare was probably the most important means by which major areas of land were transferred between descent groups, and when warfare is abolished it is essential that alternative facilities for land transfer be provided. In many colonial territories where warfare previously tended to bring land areas into line with population numbers, colonial governments have abolished warfare but have not provided adequate alternative means of transfer, and this invariably leads

(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

changes in rural areas. For a man to leave his village and go to work in the town means long separation from his family and from his kin, an experience unheard of in the past. Separation from his relatives means that he may be facing dangerous risks from the sorcery of foreigners in an unknown country. This is one reason why migrant workers tend to live in kin clusters in the towns. Unemployment, inadequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

Topography. Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

Social. The social structure of the Yega is localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P·3-B]

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relationships [578] and social relationships outside the village. The first of them, in 1952, seems to have been precipitated by a quarrel between [628] the Timumu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a 361 superfluity of reasons. Rimoldi was told of almost all the shifts 657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths 361 attributed to sorcery and because of quarrels between neighboring villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his [764] ghost. The population of this village shifted to nearby Hohorita, [775] a move which was in any case favoured by the government. A reason that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

731 with some knowledge of anthropology. All these authors, following
361 F. E. Williams, had the impression that Orokaiva clans are corporate
423 groups and that the local clan groups are segments of these. Thus,
657 Plant and the others imagined that the Jegase of Sui (near Awala) would share their land without reservations with the Jegase of Sivepe, that the Seho of Awala would share their land with the Seho of Sivepe, and so on. The Orokaiva, however, knew that their position in the resettlement villages would be weak indeed unless they retained their own village holdings. This weakness will become more apparent from my discussion of the resettlement village of Musuni in a later chapter.

628 The closely allied villages, therefore, are not only a source
423 of cooperation but also competition. Seho returned and had no trouble reasserting their rights; they accepted with good grace that their neighbors had built their village partly on Seho land and that the mission station had partly been built on it, but they jealously guarded the rest of their holdings. Let us now consider the specific variables listed in the previous section.

628 Transactions between members of closely allied villages occur in kinship and friendship roles; decisions affecting the villages as corporate groups are taken at a meeting where all adult men of the affected villages are present, and have a right to speak. Visits between the villages by individuals occurred almost every day; formal meetings involving Sivepe and one of the closely allied villages occurred, for one reason or another, about once a month. The occasion might be a death, a bride price, a minor dispute, some government or council or church project. Contacts were equally close between young and old, males and females. Meetings occurred in the villages, or, more casually, outside
[578] them. There is much affection between people of closely allied villages and one finds that disputes between them, though giving rise to a great deal of heated oratory, are not rashly allowed to get out of hand. The disputes I witnessed were all resolved amicably and serious breaches carefully avoided. On the other hand, neighboring
[574] villages were always treated with much reserve. Before the eruption, they never ate together except under the formal conditions of a feast; even today, when a feast is held at the mission station for all the villages in the parish, each village sits apart in a separate group. When people from different villages eat together in a formal feast, each village house has its own little group of guests, who are either kinsmen or in a partnership relation. Transactions between such persons nonetheless have a greater fiduciary element than
[754] transactions with other outsiders. Sorcery between closely allied villages occurs, but only, so I was told, by the employment of a professional sorcerer from a more distant village. No Garombi man would act as sorcerer, so I understand, to kill a Sivepe man, but men from Isoge or Kendata could be found for such a service.

621 manageable size. Jovareka was definitely not a hereditary leader in
622 Sivepe; in fact, he was not even born there. On the other hand, the
625 two men he saved belonged to the leading family of the Seho clan,
614 which is the dominant clan of Sivepe. In the circumstances, the law of reciprocity demanded that the Seho clan backed Jovareka as a suitable man to be village constable. His status was accordingly greatly enhanced.

625 The scope of his role, however, may easily be exaggerated. According to Samuel, he was put through a course of training of one day. He was told about how to take a case to court and how to get and give evidence. He was told not to belt anybody, but handcuff them. He had to check that houses were built properly, that sago roofs were replaced and lavatories built. He also had to see that the men cut the grass in the village and the women swept, and that the road built by the government was properly maintained. Each village had its own stretch of road to look after, and this was subdivided into sections for each of the men. This summary tallies [364] with the statements of other informants. We note that some of the included items (such as the women sweeping the village, the replacement of old sago roofs) are traditional activities and hardly required police supervision. Other of the included items, such as the building of lavatories, remained a dead letter until after the eruption, and it was not until 1965 that all houses actually had lavatories. [754] Furthermore, it is only now, with the fear of sorcery diminishing under the impact of Christianity, that anyone would dare to use a lavatory.

I asked Samuel whether he had ever handcuffed anyone or had anyone jailed. No, he had never used the handcuffs. He had never brought anyone from Sivepe to court. He had sent people from other, surrounding villages to court. Tax was never collected past Sangara in his day, he said, implying that his record would not have been so serene if he had had to collect the head tax. Two Sivepe men had actually been taken to court during his period of office, but not by him; it was done by a visiting patrol, for not tending the roads, but they were let off as they had just returned from a period of plantation work. Other Sivepe informants told me that the village constable made little difference to the way of life of the people and this must, I [627] think, be conceded. Nonetheless, Samuel was evidently called in as a mediator in quarrels in other villages and due to his influence, some cases went to court.

625 The evacuation camp seems to have placed a heavy burden on the village constables as they were the middlemen between government and 731 the village people, responsible for the distribution of food and supplies and the setting up of village organisation in the camp. The camp consisted in fact of a number of villages, closely together, in which the village constable was much more in charge than he ever had been. Permission to go back to the home area to check whether possessions had remained undisturbed and to collect food, also had to be given through the village constable who was put in charge of all such

this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the other held out. I was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not "ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

CHAPTER V: Disease

Section 1: The Community as a Carrier of Disease

164 Data on Orokaiva health are sparse due to the absence of medical research. Some of the picture may be seen from the table of 1966 hospital admissions of St. Margaret's Hospital, Eroro (Table 11).[A] The figures for serious illness over the whole of the Northern District, are of course far higher than these figures indicate as only a fraction of cases of illness come to the notice of the hospital. It is estimated at 90% of the population is infected with malaria while filiariasis, gastro-enteritis, influenza, scabies and other skin diseases are also [146] extremely common. Some rough studies of Orokaiva diet, carried out under the auspices of Saiho hospital, seem to indicate that malnutrition plays only a minor role as the cause of Orokaiva disease, and patients admitted to hospital rarely have diseases caused by [165] malnutrition. Malaria causes many deaths among children, including one in Sivepe during the time of my stay. People are extremely anxious [753] about disease, even mild attacks of influenza or of malarial fever. The cause was always thought to be sorcery.
[754]

Section 2: The Community as the Victim of Unfamiliar Disease

164 No unusual incidence of disease was noticed in the evacuation
731 camps, except for infections due to bad water supply at Cape Killerton camp which was evacuated after a week. Dr. Gunther noted some spinal meningitis and paratyphoid as "the result of close living together in camp." Some old people died, as informants told me, due to grief and loss of the will to live after the disaster.

Section 3: Community's Perception of New Location as Healthy or Unhealthy

753 The inhabitants of Ilimo camp were not particularly concerned
731 about health dangers in their new location. Ilimo was not far away from their own territory; villages such as Sivepe had had at least some friendly contact there and their fears were concentrated more on the safety of some of their kinsmen and the threat to the land and possessions they had left behind. It was different for the Sangara and Isivita people who were encamped in the Oro Bay area, in the midst

A [See Cat. 116, p. 216--Analyst]

177 the people. When the Japanese were gone he went back to his old village;
177 around 1946 he took over a school at Sewa, established after the war
in a hitherto heathen area. Moses told people to build school rooms,
houses for the teachers and a church. The people worked hard on these
projects because they wanted to send their children to school. The
school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.
[562] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are
[431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowledgeable about the holding of feasts and their magic and that he feared
[754]

177 his powers of black magic would be undermined by the church if he
[797] joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

[754] One of his sons, however, did leave the village to join the A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

177 This son, baptised under the name of Lawrence in 1963, is now
623 about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepe. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission personnel. He refuses to sell any of this land to the mission nor
[429] will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepe to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man to thought of things like that.

[665] Lawrence has nine children, three married and three single daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepe, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepe. The third married a Samara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

623 Lawrence was comparatively well off, largely because he was a
177 good coffee producer, but also because he received bridewealth from
471 three daughters, continuing gifts from his sons in law and from the

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepa, I saw a village with new houses, built on the govern-
ment's instructions, but I was told nobody lived there except when
[361] there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Con-
621 sistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for
[614] new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The
592 generally monogamous family units are under the "immediate
62 authority of the father," while the affairs of the local living
622 units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal
422 property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

181 In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in
[154] the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually
[562] hostile and resistant to whites. Women were often seen ac-
[726] companying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local
[628] kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were
[728] precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes
361 as the result of a "quarrel and the fear of retaliatory magic,"
241 but more often it was "simply the lax method of horticulture
[518] which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site."
361 Another factor could have been food scarcities which tend
261 to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild
731 roots and fruits. The implication of this is that even the
165 excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

361 Williams and others judge that with the modern pacifica-
198 tion, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly
[949] to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village
361 type also occurred, particularly as a result of Mission influ-
571 ence. Over against this greater dispersal, the people have;

liberately endeavored to keep everyone busy, and the men spent much of the time in work gangs (e.g. Monday, Tuesday and Wednesday were usually devoted to house-building; Tuesday, Wednesday and Thursday to gardens; Friday to roads and hygiene). But leadership and organization were creatures of Government, and to some extent of Mission. There were no significant signs of a self-motivated superstructure taking form other than the strengthening of scattered clan ties. Consequently, should larger communities be established with the purpose of preventing the people from scattering out again, they would have to be bureaucratically or theocratically controlled with all the dubious consequences such a situation can entail.

2. Reasonable law and order was being maintained in the new settlements, under the eye of a considerable force of the Papuan Constabulary sent in for the emergency. Opponents of a concentration policy claimed, however, that the older patterns of intergroup hostility and violence are not far enough below the surface to justify the risks involved in larger long-term aggregation. As indicated, problems of land tenure are a major potential source of conflict. Another is "woman trouble," judging from experience in the camps where husbands and wives find themselves in informal association with members of the opposite sex, in contrast to the normal tightly structured small units.

3. Not least among the uncertain factors is that of sorcery. According to those who manage the settlements, fear of coming under the influence of strangers who practice sorcery shows itself as a vague but persistent factor. Most overtly it has emerged in connection with the disposal of waste products in the large camps. In typical Papuan fashion the Orokaiva is extremely secretive in his disposal of faeces and other leavings of his body because of the possibility of their use against him in harmful magic. A crucial question, therefore, has been whether group toilets could provide enough anonymity to forestall opportunities for the practice of sorcery. The problem was dealt with where possible by putting men's and women's latrines over running water. This social-supernatural sanitation problem could be serious where long term settlement of large groups is being planned.

4. On the economic side, no sound basis seems in sight for establishing large permanent communities in the comprehensive manner proposed. As indicated, the familiar pattern of shifting gardens will normally involve seasonal movement outward from the immediate environs of the new settlements where most present cultivations are now being made. As yet, no widespread disposition exists to adopt more intensive sedentary cultivation, although undoubtedly some will be prepared to try to continue cooperative experiments with rice and other crops and, hence, will be amenable to Government and Mission encouragement and aid here. As in socio-political affairs, the responsible organization and leadership would in general have to be provided from outside, with the dependence relationship that this implies. Government might have to continue helping any large community for an indefinite period, as with the mechanized agricultural production it is introducing at the Ilimo camp. In large settlements the technique of handling domestic pigs and chickens, vital sources of protein, is always a difficult

felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

In the Orokaiva village, exchange value may enter in four ways: through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

The term *pure ari* is appropriate to describe the white man's labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution. Councillor Colin brings this out by his example of the policeman who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[20] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

No great value was usually attached to conversion to western commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 577 305 17. A discussion of work specialization among Orokaiva (of which there is but little) will be found in Schwimmer (1967). An interesting type of specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo meni ingesoa, eti atimbasoa, i umbasoa, umo timbasoa; donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena. Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa eto i gaipi oa, pure jirembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagoru: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earoru, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earoru. Eto donda matu nunuga ena avo indie insetera avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto indie. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora.*" Robert, Sivepe, 1966.

694 754 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure pununa.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

758 743 government scale in 1965 was $1000-$1800, per annum. The orderlies assisting the AMO received $1 per month. This did not necessarily mean that the AMO lacked the qualifications to get a government job; he could easily have obtained one.

Every day some dozens of people would present themselves with minor and sometimes major ailments. They would be bandaged, given a pill or some other simple treatment. Very sick cases were referred to the hospital; most days, a car would come to the mission station and the AMO could get transport for his patients. The beds were occupied for the more serious cases who could not well go home but who did not need the more specialised treatment of Saiho. The nursing aid never stayed in the hospital overnight but one or two relatives of the patient usually did; if the patient's condition deteriorated, the AMO could always be called over as he lived on the mission station. (See Map XI.)A

743 Inonda was served by one of the medical aid posts which are being built all over the district. This was at Hohota, next to the [344] mission school. Such aid posts are built of milled timber and paid for by the Ngaturu Council; the government may subsidize these posts. The salary of the aid post orderlies, who work on a part time basis, is paid by the Council also, but in 1966, the government paid a 50% subsidy on these. Most of the large resettlement villages (Hohorita, Koipa, Kiorota, etc.) had them, or were getting them, three posts being added in the year 1966. The smaller villages had to share aid posts; thus, there were no plans to build one at Inonda, and people were expected to walk the three miles to Hohota for treatment.

758 743 The standard of aid was not always as high at these posts as it was in Sasembata. Hohorita had much trouble replacing an orderly who had left. Inonda found it difficult to get service; on one occasion when we went to the aid post, we heard, upon arrival that the orderly had just gone to town for the day. On another occasion, he was in his house; he had been hunting, was tired and would not see anybody. This would have been a rare occurrence indeed at Sasembata. The orderlies regarded themselves as part-time employees who chose their own working hours. This would have been reasonable (for average cases) were it not for the distance between Inonda and Hohota. How often will a man walk six miles to collect a single malaria pill? A more serious problem is that the orderlies are not nearly as well trained as the AMO; hence, they can hardly be expected to carry out diagnosis.

755 People were greatly taken with the medical services available; they were not a replacement but an addition to traditional magical practises. When my interpreter was sick he was very pleased to swallow the pills I gave him, but his house was full nonetheless with numerous herbs collected for his complaint and these were being boiled in a pot or otherwise ingested simultaneously with my medicine. The Orokaiva view is that medicine, given for the purpose of curing, will be effective if it is stronger than the sorcerer causing the illness. It has been noticed that this is sometimes the case with Western

A [See Cat. 116, p. End Map 10--Analyst]

755 medicine, though by no means always. Bandages were especially popular; they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants to be helpful would be treated thus, and it has of course been noticed
554 that they relieve a great deal of discomfort even though Western theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not understand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was less available transport to reach them with, the chain of aid posts built by the Higaturu Council did not yet exist, so that outside the government hospital, the only facilities were the mission stations.

744 The evacuation camps provided a good opportunity to put a public health programme into operation, and this opportunity was taken. No regular anti-malarial preventive treatment was given because this clearly could not have been continued after the camps were closed--and it was feared that anti-malarials might lower natural resistance. On the other hand, everyone at Ilimo was given prophylactic treatment against hookworm. Unfortunately, this medicine had the effect of "making people feel a little drunk." One man, the sole male survivor of a large family killed during the eruption, went berserk through the medicine and caused a near riot. Mr. Kaad then abandoned his campaign against hookworm at Ilimo, reviving it later, in the Saiho period. Prophylactic treatment against hookworm has not been continued because reinfection constantly occurs. The camps provided a practical object lesson on the Western ideas of treating waste matters, sanitation and water supplies, a lesson which no doubt bore fruit some years later, when the Higaturu Council had money and an ideological base for bringing about such innovations. Finally, the introduction of sweet potatoes
[242] at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health objective: it was done because the yellow and red varieties of sweet potato are particularly rich in vitamins in which Orokaiva diet is supposed to be often deficient. Today, some of this sweet potato is grown in Sivepa, though on a small scale, while plantings in Inonda are somewhat more extensive. (The sweet potatoes resist drought better than taro.)

The most active public health programmes I saw in 1966-67 were directed at: malaria control, infant health, village hygiene. The key figure in public health improvement at Sivepa was the health inspector employed by the Higaturu Coincil. This man was expected to cover the whole of the Council area, and spent much of his time touring villages. As his home was at Garombi and he had many relatives in Sivepa, he made frequent visits. Sivepa caused him little trouble, he told me, as waste matter was thrown into deep holes, everyone had a lavatory and the place was kept clean in the prescribed way. On

592 512 461 week than those in cash cropping households in subsistence gardening and also more time in clearing, even though one of the former was clearing a garden for coffee. This is largely the result of the efforts of the widow and widower and household 24 in assisting others, as described above. Balancing the greater amount of time spent by non-cash cropping households in productive subsistence activities, the cash cropping households spend more time in tasks concerned with the external agencies, particularly purchasing, in household tasks and in sickness and care of the sick. This last is without taking the separately-recorded days of sickness into account. [757] In fact, the non-cash croppers, being generally older, are more liable to prolonged periods of sickness and are also more reluctant to go to the aid post when sick - often instead using a stinging leaf known as <u>irongo</u> as a counter-irritant for a variety of ills. In addition, three wives of cash croppers attended the infant welfare clinic regularly but only one non-cash cropping woman had an infant child. Table 7:7 shows details of these separately-recorded days of sickness, including sickness during absences.

Table 7:7

<u>Inonda: days spent in sickness per man-month</u>

164

	Cash cropping households	Non-cash cropping households
Personal sickness:		
within village	0.8	1.5
outside of village	0.5	0.7
Care of sick:		
within village	0.1	-
outside of village	-	0.7
Total	1.4	2.9

592 512 461 Although the cash cropping households have, on average, a longer working week than others, it is clear that this is not due simply to time spent on their cash crops. It is noteworthy that non-cash cropping households, as well as spending a greater proportion of time in subsistence gardening, also dispose of slightly more garden produce per week than the cash cropping households, while the latter record a net inflow of garden produce and dispose of more store-bought foods (see Tables 11:8 and 11:9).

462 <u>The division of labour: the influence of sex</u>

Table 7:8 shows the division of labour between the sexes. As would be expected, men perform the major part of the heaviest tasks, including planting crops as well as clearing and fencing gardens,

[TEXT CONTINUED ON PAGE 147]

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
177 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, [799] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that [757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with minor ailments. Serious cases were often referred to Saiho hospital [743] and most of the referred cases actually went to Saiho. There was a [758] monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

[582] There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, [232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. [494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

177 The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

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Section 3: Social Services: Health Assistance

657 Social services were provided partly by the government, partly by the council and partly by the mission. The services provided by the different organisations were so tightly interlinked and so systematically complemented one another that it will be convenient to present, in the present chapter, the overall system that was operating. This system was a product of government planning, while council and mission made specific contributions in their special areas of competence. In the next chapter, I shall look at these services again, from the viewpoint of general mission objectives.

657 In this interlocking of services, it was the government which met the bulk of the expenditure, as Table 13 clearly shows. On the 743 other hand, over Papua as a whole 60% of the hospitals were conducted by the missions and over one quarter of the aid posts. In the year 1964-1965, in the Northern District, the three administration hospitals had 3,671 admissions and 13,176 out-patients while the corresponding number for mission institutions was 3,286 admissions, 255,460 out-patients. It is therefore clear that the mission contribution to health services in the Territory is, in terms of patients treated, far greater than its budgetary contribution (2% of total expenditure on public health) would suggest. This disproportion is only slightly lessened if we consider the value of grants-in-aid and drugs supplied by the government to mission hospitals. Clearly, it costs a great deal less to treat a patient in a mission than in a government hospital.

743 The Saiho Hospital, which served all Orokaiva territory, was a sprawling settlement of a great many buildings, almost all made of [344] native materials. Only one building, as far as I remember, was in Australian style, with weatherboard walls; this contained the doctor's office, some other administrative offices, and was used for the few non-Papuan out-patients who occasionally called. The wards were all built of bush materials. Although the statistics show 2,500 admissions and 5,000 out-patients per year, there was only one physician at the hospital who at the same time functioned as superintendent and had a heavy administrative burden. He had a small expatriate administrative staff, and a few expatriate nurses. In the beginning of 1967, a second physician, a Papuan woman, joined the staff. The superintendent was also in charge of the training of aid post orderlies. Increasingly, Papuan nurses, trained in a three-year course at Port Moresby, are being used. A substantial number of hospital orderlies are employed.

758 It is not the policy of the hospital to offer ambulance services, 743 so that the village people are expected to make stretchers out of bush materials and carry in their sick. In practise, hospital and administration vehicles will frequently carry sick people to hospital and I have never actually seen the stretchers made. People would certainly know how to do it. Upon arrival, the sick person is interviewed by a hospital orderly; usually he is accompanied by a number of

A [See Cat. 116, p. 218--Analyst]

758 relatives who answer questions if he is too sick. The orderly speaks
743 the Orokaiva language; the interview gives most of the information an examining physician would require, so that the language barrier between the patient and the Australian physician poses no essential problem. Orderlies can, in any case, act as interpreters. This interview is conducted without much delay and the physician is usually able to see patients fairly promptly. The relatives meanwhile stay around to hear the news; sometimes they leave the patient and go back to their village, but often they stay around the hospital as long as the patient is there.

The hospital does not normally supply patients' food. This simplifies the operation; the patients' diet will in any case consist almost solely of taro. There is usually a relative around Saiho who will cook and take food to a patient. While this may seem an unduly casual procedure, it is valuable in relieving the tension of the patient as well as the relatives. If the complaint diagnosed by the physician requires major surgery or the attention of a specialist, the patient is flown to Port Moresby at government expense. I have seen this done several times and always rather promptly. The Port Moresby hospital is a modern well-equipped institution. Admission to hospital is free to Papuans.

A minor racial upset resulted from the circumstance that the medical officer in charge of the Northern District was a Papuan whereas the superintendent of the hospital was an Australian. It arose because the expatriates, objecting to being treated by a Papuan physician, insisted upon being attended by the superintendent. The latter, placing professional esprit de corps above expatriate solidarity, would not allow the medical officer to be bypassed much to the chagrin of the planters (the public servants and missionaries did not seem to be too troubled). In an earlier chapter, I have commented on the unusually good relations between the superintendent and the Papuans.

Though Sivepe depended on the Saiho hospital for serious illness, minor accidents, malaria, dysentery, various other stomach ailments, skin troubles, etc. were treated at the small mission hospital in Sasembata. This hospital was lucky to have a competent assistant medical officer in charge in 1966. In earlier days, just after the eruption, the hospital was conducted by an Australian nurse and it was only since 1965 that Papuan assistant medical officers began to graduate and to be available for work in places such as Sasembata. I have already mentioned that the people were genuinely pleased at the improvement in service and expressed their pleasure by building a new hospital. This was constructed out of bush materials, contained about 12 beds also made of bush materials, and was equipped with a small selection of basic drugs supplied by Saiho hospital.

Whereas Saiho hospital was conducted by the government, Sasembata hospital was a mission responsibility. The Sasembata staff was paid at mission rates, far lower than the government rates. For instance, the assistant medical officer received $11 per month, whereas the

758 743 government scale in 1965 was $1000-$1800, per annum. The orderlies assisting the AMO received $1 per month. This did not necessarily mean that the AMO lacked the qualifications to get a government job; he could easily have obtained one.

Every day some dozens of people would present themselves with minor and sometimes major ailments. They would be bandaged, given a pill or some other simple treatment. Very sick cases were referred to the hospital; most days, a car would come to the mission station and the AMO could get transport for his patients. The beds were occupied for the more serious cases who could not well go home but who did not need the more specialised treatment of Saiho. The nursing aid never stayed in the hospital overnight but one or two relatives of the patient usually did; if the patient's condition deteriorated, the AMO could always be called over as he lived on the mission station. (See Map XI.)A

743 [344] Inonda was served by one of the medical aid posts which are being built all over the district. This was at Hohota, next to the mission school. Such aid posts are built of milled timber and paid for by the Higaturu Council; the government may subsidize these posts. The salary of the aid post orderlies, who work on a part time basis, is paid by the Council also, but in 1966, the government paid a 50% subsidy on these. Most of the large resettlement villages (Hohorita, Koipa, Kiorota, etc.) had them, or were getting them, three posts being added in the year 1966. The smaller villages had to share aid posts; thus, there were no plans to build one at Inonda, and people were expected to walk the three miles to Hohota for treatment.

758 743 The standard of aid was not always as high at these posts as it was in Sasembata. Hohorita had much trouble replacing an orderly who had left. Inonda found it difficult to get service; on one occasion when we went to the aid post, we heard, upon arrival that the orderly had just gone to town for the day. On another occasion, he was in his house; he had been hunting, was tired and would not see anybody. This would have been a rare occurrence indeed at Sasembata. The orderlies regarded themselves as part-time employees who chose their own working hours. This would have been reasonable (for average cases) were it not for the distance between Inonda and Hohota. How often will a man walk six miles to collect a single malaria pill? A more serious problem is that the orderlies are not nearly as well trained as the AMO; hence, they can hardly be expected to carry out diagnosis.

755 People were greatly taken with the medical services available; they were not a replacement but an addition to traditional magical practises. When my interpreter was sick he was very pleased to swallow the pills I gave him, but his house was full nonetheless with numerous herbs collected for his complaint and these were being boiled in a pot or otherwise ingested simultaneously with my medicine. The Orokaiva view is that medicine, given for the purpose of curing, will be effective if it is stronger than the sorcerer causing the illness. It has been noticed that this is sometimes the case with Western

A [See Cat. 116, p. End Map 10--Analyst]

CHAPTER VI: Addition and Loss of Community Members

161 Though the population of Sivepe has increased between the years 1951 and 1967, this increase is less than might have been expected after the settling in Sivepe of two additional Jegase families and [166] six Sorovi households. An analysis of Table 16 will show that the net population increase in 16 years corresponds very closely to the increase due to the immigration of 15 Jegase and 26 Sorovi people into Sivepe. The 1951 figures showed 40 children who, today, should range between the ages of 17 to 35; 15 of these were boys. Looking at the present Sivepe population, we find only six men of that age group and only three of these were children in Sivepe in 1951 (the other three are immigrants). This depletion of the 17-35 year age group is one of the most striking features of the present population structure.

The second striking change is in the number of children--there are almost twice as many of them in Sivepe today as there were in 1951. [158] It seems likely that this increase should in part at least be due to [165] the improved health services: the monthly clinics, with the possibility of immediate referral of young children to the Saiho hospital, do save 167 a number of lives, even if the mortality rate is still high.

166 The migration of young women into and out of Sivepe is a continuous process due to virilocal residence; a far more significant [591] demographic process is the outflow of men as a result of labour migration. [464] Rimoldi reported that ten male siblings and sons of householders of his (Jegase-Timumu) sample were employed outside Sivepe in 1962; in 1966, I found that this figure had risen to 12. I have only included men who had been residents of Sivepe and who had left, as adults, to find work. By this criterion, it would not be possible to class absent brothers and sons of Sorovi men as "labour migrants from Sivepe," as these men had never lived in Sivepe at any time but had [614] been residents of Garumbi before they became labour migrants. There [177] were, at the time of the survey, no labour migrants of the Seho clan. The fact that Jegase had many labour migrants while Seho had not even one certainly accentuated the relative dearth of contact with the outside world that characterised Seho. On the other hand, we should not read too much significance into it. It so happened that the Seho men came from very small families; most of them actually had no adult brothers living, and though they had many children, the only adult children they had happened to be girls. Thus they collected a disproportionate amount of bridewealth but could not contribute much to the external labour market. The Seho men were not actually as cut off from the world as these statistics might suggest: all had sisters' sons and sisters' husbands, real or classificatory, who were labour migrants; two had themselves been labour migrants earlier in life. In

A [See Cat. 116, p. 225--Analyst]

628 I found them elsewhere among the Orokaiva, it naturally became no easier for the mission station to lead the village.

758 759 During the time I was at Hohorita, there was no local medical service because the officer appointed by the Health Department was a Sangara who insisted that a house should be built for him before he arrived. (Orokaiva are bound by law to do such work, in payment for [653] government services rendered.) His kinsmen at Hohorita thought that if he wanted a house, he should build it himself. The medical, however, was in no hurry at all to go home; he stayed at his previous post for almost a year after he should have been transferred. Hohorita complained to the Health authorities that they had no medical; they found that unless they built the house, no medical would be provided but they would have to go to Saiho for service. Finally they yielded. This was far from being a case of anomie: it was a battle about the status to be granted to public officials at Hohorita.

653 In Sivepe, nobody would have questioned this status; they would have built a house at once for any public official who would have wanted to live there. But then, such a person would be bound to be a stranger, not a person "like themselves." When a village has produced a dozen or so public officials of one sort or another, the question begins to look different: what is so special about these people that we have to build houses for them? Furthermore, once upon a time, the Sangara working timetable was rather flexible, but with cashcropping on the Hohorita scale, and long walking distances between home and work, the Hohorita people were rather busy earning money from coffee. Time had become an economic resource.

This was a frequent subject of mild argument between me and the other expatriates. The expatriates used to complain that the Orokaiva were no longer willing to do any work (i.e., perform free services such as I am now discussing). They thought that if the Orokaiva were to advance economically, they would need to work much harder. I used to tease the other expatriates by saying that this growing reluctance to do free work for the government (roads, houses for officials, etc.) was evidence for the success of the economic development policy the expatriates claimed to be promoting. They thought this to be a sick joke.

173 In an earlier chapter, I already referred to an unusual foreshortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Sombou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the [731] culture heroes. When I did, in a very innocent way, express my

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepe and Isoge or Kendata than with Garombi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepe are now expected to cooperate in both church and local government council activities. This is definitely a somewhat [178] novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

When the Sasembata mission station was built in 1952-1953, 797 all the villages contained in the parish collaborated. Miss White's 794 diaries show how this cooperation was organised. Miss White, who 628 was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garombi and Isoge would finish the hospital ward, Sivepe and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials 628 and in 1966, while I was in the field, the time had come to pull it down and renew it. The Australian teacher in charge of the station was unable to organise this work. There was, however, a [759] Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garombi, Sivepe, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

[77 65] instituting numerous training programmes for the development of skills hitherto unknown to Papuans, and by setting up organisations [64] in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepe came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[825] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepe; the sanitary inspector appointed by the council, who lived at Garombi, came even more frequently, while many Sivepe people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

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In an earlier chapter, I already referred to an unusual fore- 173 shortening of Orokaiva history practised by Sangara informants of today. It is certainly remarkable that, according to Sangara, the Orokaiva only began to make feasts <u>after</u> the time of European contact, because earlier they could not grow enough food to hold them. Statements of this sort were made in two places (Soubou, Hohorita) by elders sitting together in groups and instructing me. I have already explained how such statements fit the traditional <u>structure</u> of Orokaiva history: original time / culture established by culture heroes / present day. As the coming of the Europeans occurred more than two generations ago, this event would seem to have been confused with the coming of the [731] culture heroes. When I did, in a very innocent way, express my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] [262] [764] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] [231] [235] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 [302] [789] [881] Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in the sense that the fluid would drive away dangerous spirits (1930: 175). With the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

361 mingled more freely as a result of travel on the government
571 roads and trails (which they have to keep in order), trading,
Mission and official gatherings, and other new opportunities
224 for interpersonal relations. One special feature of Orokaiva
life in modern times is the annual burning-off of grasslands
by hunting parties in order to get wild game. This has
[628] probably involved the assembly of larger groups and is one
of the few activities which could induce intersettlement co-
311 operation. The writer sensed the parallel of the crude local
fires set for garden clearing and the general burning-off
of grasslands to the major burning and blackening in the
wake of the volcano—doubtless a mighty job of clearing to
the Orokaiva eye.

157 Within the limits that brief characterizations of personality
norms can be valid, observers seem to agree that the Oro-
kaiva as individuals have traits congruent with the social
structure that favor individuality and mobility. Even the
casual visitor gets a sense of independence, alertness, self-
reliance, "strong talking," dignity, restraint, imperturbability
at meeting the unexpected event, and high-tension inter-
personal behavior in general. This is in particularly striking
contrast to such an elaborately structured society as that
of Samoa, where the writer had been working shortly before.
In informal groups seen around the camps and waiting at
airfields for transport, women and children, far from being
in the background, kept up a busy verbal exchange with the
men. The Administration has considered the Orokaiva ter-
[657] ritory as perhaps the best recruiting ground for its Royal
[625] Papuan Constabulary on the basis of these personality char-
acteristics, including ability to meet crisis conditions such
as patrols may encounter.

791 The Orokaiva religious history is also particularly inter-
esting here. Their traditional faith, Williams says, though
in many respects vague and locally variable, concerned itself
"primarily with the spirits of the dead" and their influence
on the welfare of the living. Death was appraised with
[761] particular realism, although it was considered ultimately as
[789] the result of supernatural causes. Magic had a consistent
place. Orokaiva country, however, has been swept in modern
794 times by a series of new cults indicative of religious adap-
tability in the face of fresh experience. First to come into
prominence was the *Baigona,* or "snake cult" of 1911-12,
succeeded from 1914 on by the so-called "Taro cult" which
in turn had undergone a series of local reformulations by
the time Williams reported on it in 1924.[7] Central features
of the Taro cult were association of successful taro cultiva-
tion with the ancestral spirits, approached by way of a
"shaking-fit" technique of revelation, together with some-
what new types of public ritual and symbols, including frag-
mentary elements from Christianity. Later Belshaw and
others reported that "Christian Co-operative Evangelist"
societies, which were developed by the Anglican Mission
among some Orokaiva converts for the cooperative growing
of rice and other crops, tended to assume a somewhat parallel
404 and absorbing mystical agriculture context. Rumors spread
668 of "an order from the King (of England) that co-operatives
791

7. *Orokaiva Magic,* Part I; see also Chinnery, E. W. P. and Had-
[113] don, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal,* 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

461 Contracting and casual employment near the village are the most popular forms of paid work, since it is possible to maintain subsistence production and even cash crops at the same time.

(iv) Remittances. Remittances are closely related to the number of absentees. Few Orokaiva have been eligible for skilled work because of the limited educational opportunities available until very recently.[1] Those in employment almost invariably see themselves as being only temporarily absent from their villages[2] and therefore feel the need to maintain kinship links and settle obligations. They normally return to their villages for leave and, if married, may leave their families in the village in the care of relatives, since few employers provide married accommodation.

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431 Single remittances are frequently of the order of $10 in cash or comprise gifts of clothing, tobacco, transistor radios and similar storebought goods beyond the financial reach of most villagers. The recipients say that they would like to reciprocate with gifts of food, particularly taro, but are precluded from it by the problems of posting or air-freighting heavy and perishable goods.

443 (v) Other sources of income. Since Papuans became eligible to hold licences to trade in 1959, several Orokaiva men have established trade stores. Their stocks are fairly limited and include rice, tinned foods, sugar, tobacco and small household goods. Since 1963, most have obtained their supplies from Oro Ltd and many have shares in this company. A number of the stores have experienced operational difficulties on account of the pressures of kin for credit or special favours, but some of the Orokaiva owners in 1964 were operating at a profit. One such store was established in Inonda in 1963.

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525 Gambling with cards is illegal but is nevertheless popular. Orokaiva villagers play among themselves for areca or matches, although they prefer to play for cash against plantation or road labourers and settlers. Villagers sometimes win large sums in this way.[3] A winner is usually expected to return some of his gains to

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[1] Dakeyne (1965:94), however, found a high proportion of skilled men amongst the Yega people, who have had the longest educational experience in the Northern District, with a school at Gona since 1910.

[2] Only two of the absent Sivepe men had not sent presents home for several years. One committed suicide in 1964; the other stated categorically that he had no intention of returning to the village, but in fact did return on leave at the end of 1965.

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[3] A Hohota man won $60 in one session with the Girua block settlers and Dakeyne (1966b:37) cites a case of a Yega man winning $86 from plantation labourers.

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Table 6:14 illustrates the main features of the activity patterns of the six individuals. Linton devotes a large amount of time to such minor activities as hunting (81 per cent of other subsistence food production) and construction (84 per cent of other subsistence activities), the latter mainly on improvements and repairs to his house rather than major rebuilding. Mourning accounted for 54 per cent of the 4.3 hours spent on social obligations, an unusually high figure even for older people and a reflection of his allegiance to customary forms of behaviour.[1]

Table 6:14

Sivepe: activity patterns of selected individuals
(hours per man-week)

	Cash croppers				Non-cash croppers	
Name	Linton	Palminus	Gorukari	Olga	Rodney Gill	Umbahapa
No. of weeks present	25.0	24.4	26.7	26.7	22.1	26.6
Percentage of survey days temporarily absent	7.4	9.5	1.1	1.1	17.9	1.5
Subsistence						
i. Productive						
Clearing	4.0	4.3	3.5	2.7	3.0	6.3
Subsistence gardening	13.7	15.3	17.9	18.7	2.5	12.5
Other subsistence food production	8.0	9.1	1.4	0.3	5.2	1.2
Other subsistence activities	5.1	2.3	0.5	0.2	3.1	2.9
Household	0.9	1.0	12.5	13.0	0.4	0.5
ii. Non-productive						
Social obligations	4.3	5.9	3.1	3.1	6.9	1.9
External						
i. Productive						
Cash cropping	3.1	5.9	1.7	1.3	0.4	-
Paid work	4.4	-	-	-	8.6	-
ii. Non-productive						
External agencies	7.2	5.6	6.4	5.9	6.0	3.3
Sickness	0.8	0.9	1.4	0.5	1.3	0.7
Other	1.4	0.7	0.6	-	0.4	-
Total	52.9	51.0	49.0	45.8	43.7	29.4
Percentage of total time spent in						
Productive activities	74	74	78	79	53	80
Subsistence activities	68	74	79	83	48	88

[762]

[1] During the year an age-mate from Seho clan committed suicide in Port Moresby and Linton acted as one of the chief mourners.

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
[797] especially when they wish to give the impression of being modern and educated. Papuans close to the Mission invariably speak of it as a natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added
[797] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisire.
[762] A person who is sisire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisire.

731 Certainly, the eruption would be followed by a resolve not to
784 make the harsh power that brought the eruption angry again. Whether
177 this power was primarily identified with God or with Sumbiripa is extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Monckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

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Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

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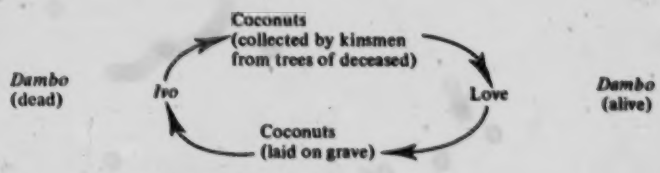
5: Schwimmer E-4,5 (1966-1967) 19
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

crucial passages verbaim. In the full text, the brother comes back four or five times to the miracle hat chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one nother. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *pepeuma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1(*a*) The man fetches the nuts from the tree.	1(*b*) The woman *helps to fetch* the nuts from the tree.
2(*a*) The man gives the nuts to the woman.	2(*b*) The woman cooks the nuts for the man.
3(*a*) The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*) At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

614 423 425 764 [177] Other sub-clan rights include those to burial grounds and tracks. Once land is set aside and used as a burial ground it remains vested in the descent group even after it is no longer used for burial. Burial grounds may, however, be a post-contact innovation, for in the pre-contact era the dead were sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

613 423 425 The lineage: The Andiriha sub-clan of Inonda is divided into four lineages but the Jego'undi sub-clan consists of a single lineage. After rights to the Inonda lands had been acquired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

361 In the period from January 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relation- [578] ships and social relationships outside the village. The first of [628] them, in 1952, seems to have been precipitated by a quarrel between the Tiaumu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a 361 superfluity of reasons. Rimoldi was told of almost all the shifts 657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths 361 attributed to sorcery and because of quarrels between neighboring villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his ghost. The population of this village shifted to nearby Hohorita, [764] a move which was in any case favoured by the government. A reason [775] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

121 January, 1951 and 1967), both in Sivepa and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

628 The concept of a "closely allied" village is a difficult [621] one: it is not often, in these days of peace, that a village [571] really acts as a corporate unit, so that contacts between villages tend to be, in actual fact, contacts between individuals in these villages who are linked by agnatic, consanguineal, affinal or friendship ties. Out of such ties, inter-village contacts may arise. For instance one village may give a feast for another village and here the unit invited is definitely very often the village; or one village may come to the aid of another after there has been a death and bring food to all members of the bereaved [764] village. The most significant inter-village contacts--those which would occur in time of war when one village went to the aid of another--could no longer be observed, but the ritual immediately after a death resembled that customary when a village was attacked by an enemy. The conch-shell was blown and the closely allied villages would come to the aid of the bereaved one. Hardly anyone would stay behind, if the death was in a really closely allied village. Thus hardly anyone was left in Mohorita, with 400 inhabitants, when an old man died at Sombou which was a closely allied village. On the other hand, if the link between two villages is slightly less close, only those families with kinship or friendship connections will go to the bereaved village. In order to be "closely allied" in the sense just suggested, a village should be geographically close (not much more than a mile away, in the cases of Sivepa, Inonda,

177 of the dead remained basically unchanged, Christian burial rites
[775] and cemeteries are generally used in the belief that they are
efficacious in controlling ghosts. Girls were "shown to the people"
[764] after initiation, preferably on the mission station during the Easter
dances. The kere which was a women's initiation dance, was also
[881] performed on a mission occasion (the celebration of St. Barnabas Day,
in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form
881 of initiation ritual to the Orokaiva? This extramural activity,
177 performed in the dead of night, signified a little more than the
intertribal status rivalry analysed earlier in this chapter. The
[533] text of the songs gives no obvious clues to their significance at the
present time. Though it was made up of at least four or five languages,
due to diffusion of the cycle through the Northern District, I managed
to collect a translation of most of it during a tour of Port Moresby
when we visited knowledgeable members of various Musa River tribes.
The songs evoke a series of phases in a woman's life, stating symbolically
her role in initiation, courtship, marriage, childbearing and feasting.
They are very rich in symbolic content which is not relevant here. But
they contain no message that can be related to any modern millennial
or cargo cult. During a visit to Uiaku, in the Collingwood Bay district,
my wife found that the old women in that village knew the songs but
not the younger ones. This points to diffusion from the Musa to the
Collingwood Bay district some decades ago. All this evidence confirms
the mission teacher's own explanation given to me that he introduced
this cycle in order to keep old traditions alive, in order to give more
strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by
881 the performers especially in the very first dances. They might at that
177 time be doubtful about dance movements and words but not about the
781 demeanour appropriate to the impersonation of spirits. At the very
first practise, even the young girls knew the right bearing, intonation
and rhythm. This was not truly the introduction of an alien ritual;
the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to
771 lend it the ambiguity that was evidently intended. It was not the
177 purpose of the mission teacher to set up this pagan ritual in opposition
797 to Christianity but rather to bring about its continuity in a Christian
order. I have already shown in earlier chapters that the Christian
dispensation is conceived as not only a religious but also and importantly
a socio-economic one--that Christianity, wealth and wage labour are
perceived as part of the same complex. If it can be made to accommodate
women's initiation ceremonies (after jettisoning, of course, those
aspects to which the clergy takes exception) future generations will
have the strength of the forefathers. This desire for greater
strength, in a physical and numerical as well as spiritual sense,
was often expressed to me.

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they [764] who filled the gap between the rows. The councillor had long been at [775] pains to close down the small villages of Sombou and Kakita and Soubou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was [231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees [245] were much better looked after, and there were far more of them. Every man had his coffee garden and an income of $100 per annum from coffee [166] was normal. Young trees were also being planted at a much faster rate. Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

astonishment about this kind of story, I was told in explanation that at the time of the eruption, the old people could not run away and the old people all died. For this reason, old customs and old knowledge died also; those who were left behind--the children who could run fast enough to escape--were forced to accept the new way of life as they knew no other.

This suggestion of an abrupt break in cultural tradition is of course in itself mythology. The continuity was obvious enough to the observer. Nonetheless, the belief in discontinuity was an important aspect of the modern Sangara self-group image. In the eruption, Sangara lost the people who used to make the decisions, who used to set patterns of behaviour. The survivors were forced to put the pieces together as best they could. Many customs vanished on the day of the eruption, e.g., polygyny; those customs which survive in Sivepe, however, mostly survived to some extent in Hohorita too. But when I asked my Hohorita informants whether father-in-law still chased his son-in-law with a firebrand this definitely appeared to be out of fashion. For traditional knowledge as well as custom, Sivepe was the repository of much that Hohorita had left behind. Almost all the mythology had been lost; the dancing was much inferior because the people were so much busier with their coffee; on the other hand, feasting ceremonial had remained mostly intact. Burial rites were no longer as Williams described them but very much the same as in Sivepe, i.e., the essentials were intact but a great deal of restraint had been introduced, the body was no longer dressed and laid out in the traditional manner and, most important of all, the widow was no longer expected to stay with the dead man after burial.

In matters of food, clothing, housing and village improvement, tools and skills I found most of the same features as in Sivepe. The differences I found were, to some extent, in the greater availability of money, in the larger number of educated people, the larger number of persons who had migrated to towns where they held skilled jobs, the intensive contact between this educated élite outside the village and the educated élite inside it, and as a result, as far greater awareness of ideological and political issues than could be found in Sivepe. Stephen, the government driver at Inonda, had a sophistication comparable to this educated group at Hohorita, but he was alone and exchanged ideas only when he was in Popondetta, away from the village where wider political and ideological ideas would have aroused little interest.

Section 4: Leadership in Hohorita

At the time of my arrival at Hohorita, the traditional leader, a man called Amos, had recently died. After his death, he was revered with much ceremony. Thus, during my stay, a naterari (Williams: 1930: 226) was set up, i.e., a post to taboo the coconuts and betelnuts

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

26: Schwimmer E-S (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife, to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

461 There is a clear hierarchy of priorities among the various activities with which the Inonda people can occupy their time. Serious illness, of course, precludes any other activity. Unless suffering from illness the men give priority to wage labour (in most instances this was heavy manual work). In the absence of paid work, social obligations connected with life crises take precedence over all other activities (except the harvesting of food). During our survey, men spent an average of 15.3 hours weekly on social obligations associated with life crises, and on travel (which is generally related to social obligations) and women 23.0 hours. During events associated with life crises people do undertake subsistence activities, but almost exclusively harvesting and hunting to provide food for the festivities.(1) If there are no life crises in the offing then priority is given to clearing, planting and weeding the gardens in order to ensure the food supply. Thereafter, free time may be used for cash cropping, the making of artifacts, or leisure.

The effect of life crises on cash cropping was markedly different from that on paid labour. During the survey, villagers who were not engaged in paid labour spent a considerable amount of time preparing for a puberty ceremony and a birthday feast and did not work on their cash crops during the periods of preparation. When a villager died, for the three weeks of mourning following his death, nobody worked on cash crops as this would have been contrary to accepted codes of respect for the dead. Those who were engaged in wage labour, on the other hand, did not take any time off to prepare for either the birthday feast or the puberty ceremony, though they did assist in their off hours. When the death occurred, the employees, including a son of the deceased, took only two days off before resuming their jobs. The cultural restrictions on productive activity during a period of mourning, and the obligation to give priority to feast preparations over economic pursuits,

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[589] (1) An interesting instance of the adaptation of traditional obligations to serve modern economic ends was noticed during our stay. It is common for a prospective groom to assist his prospective father-in-law with housebuilding or bush-clearing. One ex-Inonda man who had taken a block in the government resettlement scheme got his prospective son-in-law (who lived in Inonda) to work in his (the father-in-law's) coffee garden. As the son-in-law was socially of lower standing than the bride and as he was more anxious about the match than she, the father-in-law was able to derive several weeks free labour from both the groom and his sister, with occasional help from their mother and other relatives.

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> Between friends who visit one another or who meet on a path, this may amount to little more than proferring an areca nut or piece of tobacco, much as we might offer a cigarette, but with a more definite expectation that it will be done. If the purpose of the visit is a little more serious, or if it is to be extended, the gift may be of food, and certainly a host will offer meals....

He further stresses that such small transactions may be as central to the economy as the more complex ceremonialised institutions involving reciprocal exchange. Simply because such transactions and associated activities are of a moral rather than a mechanical nature and incorporate notions of social status, they cannot properly be distinguished from strictly 'productive' enterprise.

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In Sivepe time devoted to fulfilling social obligations is divided almost equally between the three categories of death (mourning), 1.1 hours, other ceremonial (feasting, farewell parties, etc.), 1.0 hours, and informal visiting, 1.2 hours per man-week.

While the pattern of visiting varies little from week to week, the more formal activities only occur irregularly. Only one death, that of a child, was recorded within the sample during the survey, but various people were involved in the deaths of four kinsmen resident elsewhere.

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The duration of mourning seems to vary in relation to the physical and social distances separating the mourned from the mourners as well as according to the status of the deceased. In the case of the child's death, 90 per cent (all but four members) of the sample participated together with a large number of clansmen from other villages and most of the third clan represented in Sivepe. The sample members mourned continuously for an average of 11 hours each, this being terminated by a church service on the mission station. Infact, all the mourning during period I fell in four weeks, an average of 5.5 hours per man-week being recorded for these weeks.

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The time devoted to other ceremonial activities can be subdivided into four categories, the relative importance of which reflects the nature of social change among the inland Orokaiva. 'Parties' account for 38 per cent of the time so spent. These are normally held at the departure or return of kinsmen in paid employment or to mark 'birthdays' and are invariably characterised by the sale of plates of food and liquor and by western-style dancing to guitar groups.[1] Another 30 per cent of the time is devoted to traditional

[1] The term 'party' is in current usage in Orokaiva and other New Guinea languages. For a detailed description of one such event, see Crocombe 1966.

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Palminus was able, like Linton, to establish an exchange relationship with a man employed in Popondetta, in this case a distant relative of his wife, working as a carpenter. On his occasional visits he took him food, receiving in return cash and store-bought goods. Apart from this case, however, Palminus' transactions are almost entirely restricted to [431] subsistence goods and services - food and labour in harvesting yams. Acquisitions amount to 62 per cent of all his subsistence produce transactions (compared with 84 per cent in [765] Linton's case), the greater proportion reflecting events following the death of one of Palminus' sons early in the survey when gifts of food were received from a wide range of kin during the week that he and his wife remained in their house.

[562] Gorukari. Like most women Gorukari transacts little apart from subsistence produce and, in this, the substantial excess of disposals over acquisitions reflects her responsibility for distributing plates of cooked food. Outside her own family her immediate responsibilities are to her husband's ageing parents and their remaining dependent children who live next door. While the two families frequently prepare their meals at the same hearth the periodic sickness of the parents also involves Gorukari in providing food for them. In addition she temporarily accommodated her husband's father's sister, a widow, and her [431] children. This family appears to have had some difficulty in achieving subsistence[1] and Gorukari frequently provided them with food. These gifts were acknowledged following the widow's remarriage and departure from Sivepe.

Elsewhere within the village Gorukari exchanges produce primarily with women from her own age group, where the bond is one of common interest rather than of kinship. Outside the village she maintains contact with two of her natal kin - her mother, who lives about one hour's walk away, and her sister, married to a medical orderly at Saiko hospital. These periodic visits also enable Gorukari to take food to her husband's father's sister who is married into her mother's village.

Olga. Olga's exchanges follow a similar pattern to those of Gorukari. They involve, almost exclusively, subsistence produce, disposals of which account for 71 per cent of all transactions. Within the spouse's lineage frequent exchanges are effected with her son and his wife whose house is adjacent. Elsewhere major exchange relationships are maintained

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1 See p.94.

Work patterns

Records of time spent in various tasks was kept by A for ten weeks, and by B and C for twenty weeks.[1] The results are summarised in Table 6. Records were also maintained for their families and these plus those for the entrepreneurs themselves are summarised in Table 7.

These tables show some marked differences between the work patterns of the entrepreneurs and those of villagers. The entrepreneurs spend less time on subsistence gardening than the villagers spend (5.7 as against 11.5 hours respectively), much less time in wage employment than villagers (nil as against 6.9), more than twenty times more in cash-cropping and trading (19.5 compared with 0.7), only a fraction of the time acquitting traditional social obligations (1.0 as against 8.7) but considerably more in community activities as officers of co-operatives, local government, church bodies and other public agencies (7.6 as against 0.5). The same trends are apparent, though not so marked in degree, where the entrepreneurs' families are included (Table 7).

Time spent on social obligations is kept to a bare minimum. This is facilitated to some extent by the fact that all the entrepreneurs live out of sight of the village houses. Non-conformity would be more difficult if they were living right in the village. During the twenty weeks' survey of B's family, for example, they took only one day off for each of two deaths in the village. Had they lived in the village they would have been involved for many days. In another instance which occurred before this study began, a classificatory brother of B's wife died in Inonda, just over the river from where he was living on his coffee block. After two days' brief formal participation in the mourning he removed to his Hohota house and worked on his cocoa there. Two days after the three weeks' mourning period at Inonda finished he returned to live at the coffee block. Had he remained at the coffee block during the mourning he could hardly have continued to work full-time on his cash crops. The Inonda villagers, by contrast, left cash-cropping entirely during this period.

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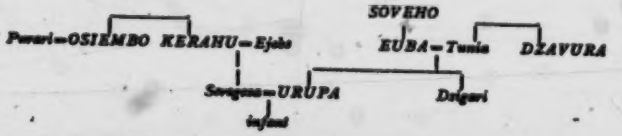
[1] The periods recorded were: A and his family ten weeks from 14 June to 23 August 1963; for B, twenty weeks from 1 September 1962 to 18 January 1963 and for C, five and a half weeks from 22 December 1965 to 29 January 1966. No records were made of D's work patterns. Watches and forms for recording work patterns were issued to A's eldest son, B's son and to C. For the first week either the writer, Mr Hogbin or Mr Burau lived with the people maintaining the records, but the period of our residence is not included above. One of us or Mr Eupu made visits to collect the records and discuss problems every few days.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

the final situation is satisfactorily sorted out. In such ways, incidentally, it is probable that new clans are formed.

Another factor which must inevitably delay re-building is the activity needed to re-establish social connections. When I was at Popota village one week-end I checked on food that was being eaten, and found that although the children were carefully fed with nuts, pumpkin tops and other valuable foods, the adults were either going without food altogether or eating the despised wild yam; their taro gardens were rotten or choked with weeds. I noticed with surprise a group of people, heavily laden with bags of taro, hurrying along the road. They walked straight into the village and up to a house, and a few minutes later I heard the noise of crying and wailing. A group of nine people were sitting in two rows facing each other under the shadow of a humpy. The relationship of the whole group, with the exception of two unrelated village women, is expressed in the following diagram (capitals signifies men, lower case women).



Kerahu and Ejobe lived in Popota, and their daughter Seregesa married a Sasembata man. When the volcano erupted parents and daughter were evacuated in different directions, and although from time to time they heard news of each other they were unable to see each other. When they returned to their villages the daughter's first thought was to visit her parents, but this could not be done until a humpy had been built and a present of food collected. On this day that they met the procedure was almost automatic: it was like a well-rehearsed play in which every actor knew his part. Seregesa sat down with her baby, and her father gently cried by her side. Her mother sat in front of her, embracing her and crying in a wail:

Nau hakoro tato tungenu

Ijoto fouta tato tungenu.

This was translated for me as "I am the girl who was chased away, to other countries, other places chased away." Meanwhile Urupa and his family squatted on mats facing the crying group and chewing areca nut, and Pusari with a village woman relieved Seregesa of her bag of taro and began peeling it. The wailing continued for about an hour, other friends and relatives joining the group, and then conversation became general and food was eaten.

In such ways are the social connections remade. And some thought and activity is being devoted to other ends as well—the dance, for instance. Although there was no desire evident to conduct large mortuary feasts for those who had been killed, it may be expected that, as gardens come back into bearing, individuals will

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

remember the dead in such ways. In the meantime one may hear the drums beating in some villages as the men spontaneously come together for recreation and practice.

The programme of reconstruction, then, is very much a matter of the allocation of time between such ends. To regard it simply as a matter of building houses and making gardens would be a mistake. But even within that simple framework the rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

Papuans, and particularly the Orokaiva, work with great vim and energy when they can work as a team, within sight and sound of each other. The melodious song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting. The custom of Government Day, the day a week which is set aside for village hygiene and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

So far I have been writing mainly of the immediate problems of re-settlement. The Administration is however taking a much wider view and there is a great deal of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
woman) is a cleared patch of ground on which nothing grows; nor is the woman
[578] in a better position as she cannot (independently) bring any crop to maturity as
she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva
land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

795 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in
887 transmigration of souls. But this transmigration occurs through the mediation of
241 the piece of land where the spirit of the dead person has taken up special
residence. This is usually the garden he or she was cultivating at the time of
death. It is a fact of Orokaiva life that old people do not stop gardening as long
as they have any strength left in their bodies. Waddell's study of time allocation
in Sivepe showed that after the age of fifty-five, time spent on productive
subsistence activity, especially in the garden, declined only slightly, whereas
non-productive activity (e.g. social obligations, dealings with external agencies)
declined very sharply (1968: 104). Old people devote their reduced energies
almost exclusively to their gardens, grow progressively closer to their gardens
and away from the social network, until finally, after death, their spirit becomes
still more closely attached to the land. Their souls re-enter association with the
village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given
away by him to persons outside the lineage. No *here* are taken from these crops.
241 After a suitable period of fallow, the garden is replanted, but even then the land
is not thought to be free of the deceased's spirit. Very often the son or brother
of the deceased plants the garden and uses the produce to give a feast. It is
thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is
774 believed to reside. They seek the spirit by placing leaves of a fragrant plant called
mo in a creek which runs through the land. When the spirit is thought to have
entered the leaves, the parents address it thus: 'You are dead now. We shall look
after the land and we shall look after the baby so it will become big and strong.
Then this child will look after the land.' The wife, in preparation for this rite,
has brought the baby to the garden in a string bag, and has also brought a stick.
When she arrives in the garden, she places the stick in the ground and hangs the
baby in its string bag from the stick. After the ritual by the water, she drops
some of the leaves by the stick, then takes the baby, the bag and the rest of the
leaves and returns home with her husband. The custom is for the husband to say
at night: 'I hear the baby crying.' He is expected to go back to the garden and
talk to the baby that is believed to be in the stick, telling it that the parents will
now look after it and there is no need to cry. He should then take the stick, with
the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

of Orewo lineage of the Kurou clan of Yega, who had been educated to Standard IV at Gona Mission School and had spent the year before the war working at Bunting's store at Cape Killerton. Just prior to the war he joined the Papuan Infantry Battalion and became a corporal. During the war an Australian soldier with whom he was friendly convinced him of the possibility of raising money from short-term crops. The Administration had introduced copra-making much earlier, but prices were low and there was little enthusiasm for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A site was selected by Mixon Kairembora, the Yega 'land custodian', between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring Beuru and Ahora people obtained Samuel's consent to join the Yega in their co-operative efforts, paid him money and were permitted by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two years. The man in charge says that good crops of peanuts were grown and sold to the Administration, being taken by headload to the coast, thence by canoe to Cape Killerton. The money from the sale of these crops was paid to Samuel Ungega who banked it at Higaturu. Unfortunately, no records of the amounts obtained are now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

Table 1

583 Bride-wealth paid for three women married into, and two marrying out of Andiriha sub-clan, Inonda

	In 1	In 2*	In 3	Out 1	Out 2**
Approximate date	1961	1958	1953	1960	1964-5
Cash	$74	$22	$40	$22	$74
Pigs	2	?	1	?	nil
Traditional valuables, utensils, etc.	Yes	Yes	Yes	Yes	?
Food	Approx. $12	Yes	Yes	Yes	?

* Woman with illegitimate child.
** Required of a man from Hadang District for a girl of Joremba'embo lineage.

[584] suitor (cf. Williams 1930:31, 141, 144, 149-50). The people of Inonda were aware of high prices paid for women near Port Moresby[1] and the bride's father, a man of high prestige in the area, may have been attempting to raise local prices towards the level of prices in urban areas.

The groom and his father complained about the price but accepted it as a challenge which must be answered by payment.

Between the time the price was set and the time it was paid, bride and groom spent much time together. For about three weeks the groom and a classificatory sister lived at the bride's father's farm where they helped with farm work. One weekend the bride, groom and bride's father went on a fishing expedition, indicating that the bride's father had consented to the marriage.

583 614 768 About a month before the bride-wealth was paid the groom's father died and the responsibility for organizing the payment passed to the head of the Darafa'embo lineage of the Andiriha sub-clan in Hohota II. This man will be referred to as 'the organizer'. Ideally the responsibility would have passed to a senior man of the Jegotumo lineage in Inonda, but the groom himself was the most senior. The responsibility could have devolved to the senior man of Jegotumo lineage in either Hohota I or Kakendetta, where Jegotumo was represented, but the only Jegotumo

[1] Bride-wealth exchanges in Hanuabada, Central District, at the time were mostly in the range $600-$1200 in cash plus an equivalent amount in traditional valuables (N.D. Oram, personal communication).

man in Hohota I was in his late twenties and had insufficient status in the Andiriha clan to organize the payment. There were two senior Jegotumo men in Kakendetta but the responsibility went to neither, probably because Kakendetta was 11 miles from Inonda and the groom's father's household had little contact with them. Inonda people said that the reason the position of 'organizer' passed to the head of the Darafa'embo lineage in Hohota was that about the turn of this century his father and the groom's paternal grandfather had fled together from Aramba to Hohota and that the common history of the two families placed the organizer in a special relationship with the groom (Crocombe and Hogbin 1963:14).

Several times during the two and a half months over which the bride-wealth was accumulated, the bride's father embarrassed the groom and his supporters by saying publicly that they were slow to meet the payment and that he thought they were incapable of doing so. About five days before the event the groom and his supporters arranged with the bride's father that the exchange should take place on Friday, 30 August at Hohota II.

On Thursday, part of the food contributed by Hohota people was stacked in a shade-house adjacent to the organizer's house. That evening four men from Hohota went to Inonda to assist the Inonda men to carry to Hohota a large and valuable pig which had belonged to the groom's father and was to be part of the bride-wealth.

At 6.00 a.m. on the day of the ceremony the groom's supporters began to gather at the organizer's residence at Hohota. All were assembled by 10.30 a.m. The food they brought was stacked near the shade-house and the traditional valuables on the verandah of the residence. Both bride and groom had spent the night at Hohota but they took only minor parts in the preparation of the bride-wealth.

At 6.30 a.m. a party of five women, including the bride's father's two wives (one of them the bride's mother) and the bride's mother's brother's wife, stood outside the organizer's house berating the groom's family for failing to have the bride-wealth completely ready. These women had come to collect a preliminary payment, kina, contributed by close relatives of the groom and distributed amongst close relatives of the bride to indicate to the bride's family that she is marrying into a family of wealth. Some cash, traditional valuables, household utensils, food and several pieces of bark-cloth were handed to the women, who stacked them into string bags and returned at 8.30 a.m. to the bride's father's house, two miles away.

At 7.30 a.m. other members of the Jegotumo lineage and people who had come to the ceremony smeared the groom, his stepmother, stepsister and other close relatives with a paste of mud, ashes

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Otwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

inherit rights to some of his adoptive father's land, but most of the land will pass to the adoptive father's brother's children. If the adoptee does not remain in the village he will acquire no rights. The other children of the new wife remained in their home village with their father's kin. They will acquire no rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

House-sites: The various house-sites in Inonda were allotted by informal discussion at the time the village was set up. At first the Andiriha built their houses on the northern side and the Jego'undi on the southern side of the village square but the Andiriha have subsequently expanded to the western and southern sides. The eastern side is occupied by the government rest house. Where two brothers live in separate households, their houses are adjacent, as are those of fathers and sons. House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on another site within the village because the area occupied by his lineage was full.

There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

The inheritance of property

342 768

Traditional housing has a life of only about four years. It is simply constructed and does not call for any great expenditure of either effort or materials. If the household head dies, his wife and family may continue to occupy the house, though if there are adult sons they will usually dismantle their late father's house and rebuild nearby. If the wife remarries her new husband must provide her with housing.

428

Replies to questions about the inheritance of tools and equipment were unanimous. Those who had one son (real or adopted) said these things would descend to him alone. Those with more than one son said they would go to the first-born who would divide them among all the sons, though he should make some provision for his sisters if they were living at home. Those with no children or with daughters only said that their chattels would go to the sons of their eldest brother. The one exception was a man with four daughters and no sons. Neither did his brothers have sons, although his late sister has surviving sons in a village about ten miles away. He says that if he does not have a son before he dies, he will leave his property to his eldest daughter to distribute among herself and her sisters.

The proposed inheritance of cash savings and traditional valuables followed the same pattern as that of tools and equipment, though informants state that the first-born son need not necessarily actually divide the estate, but will normally merely take care of it as trustee for his siblings. He is then obliged to meet their obligations in respect of bride-price and other exchanges from the common pool. This practice has in fact been followed in all instances checked with the villagers, though they do say that it is not contrary to custom to share the estate among the beneficiaries.

While it is said that a man's dogs are usually inherited by his eldest son, pigs and fowls appear generally to be consumed during the feasting associated with the death. One exception noted during our stay was a large pig which had been "earmarked" as part of a bride-price exchange. When the owner died this pig was in fact reserved for the bride-price, though his other pigs were killed for the funeral feast.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

repayment was too small. It is also used in the sense of 'earnest' of a repayment that will be made in the future. If the insufficiency complained of is not made up, effectively a *tihanga* remains.

The term *pavonei* is used to indicate that the return payment is considered excessive. Far from being considered gratifying and proper, such a state of affairs is considered provocative and unfriendly. The principal meaning of *pavonei* is a stick planted in front of a coconut palm by a man who has taken some nuts and who thus acknowledges his debt. The setting up of a *pavonei* at a feast means thus to set up in the mind of the recipients of a repayment the consciousness that they are again indebted to their exchange partners. The act of setting up such a *pavonei* is often referred to as *kambari*, a verb that means principally 'to bite, to kill'. The effect of it is that the victims of the *pavonei* will themselves return an excessive repayment, and that the whole exchange will escalate to the distress of both parties. The outcome may either be war or, if relations between the parties become more amiable, one side may decide to call off the battle by restoring the balance.

A very different and entirely legitimate imbalance is what is called a *hande mine*. This is a gift such as should be made when returning a loaned object (implements, ceremonial paraphernalia etc.). It should also be added when repaying a gift made at a time of shortage when the donor himself was badly in need of the thing he gave away. A special case of this are the food gifts made to a bereaved family after a death (when the family may not garden, and when crops from the deceased's garden are no longer consumable by his family). The bereaved family must add a substantial *hande mine* to the repayment of such food gifts because of the presumption that the sudden unforeseeable demand made on the donor's food resources would create distress. The *hande mine*, if omitted, is said to create a *tihanga*.

In some respects the notions about *hande mine* resemble what Sahlins said about the Maori notion of *hau*. The magnitude of the *hande mine* expected with the return of a borrowed object is not related to the length of time it has been kept, but rather to the success the borrower had with it. If a hunter catches nothing after borrowing a gun, he owes nothing. If he has a large bag, he is expected to be generous to the lender.

The question that concerns us here is to distinguish the situations where *tihanga* is created from those where it is not created. This is no easy matter especially because *tihanga* in close associations is extraordinarily hard to establish clearly. I have shown that Orokaiva householders do sometimes count as gifts meals of cooked vegetable presented to certain categories of kin; in comparison to western society far more things are counted in the balance. The crucial distinction seems to be that some debts are reclaimed while others are not. Debts incurred by a child may be claimed by the parents when the child is adult, but in fact the child may start quite early in making some prestations, viz. when he has a small garden of his own. There is nothing extraordinary in the pattern of household co-operation, but many things that in western society would be classified as co-operation are classified by Orokaiva after the model of *hande ari* and *tihanga*.

It is therefore futile to seek to demonstrate an exchange ideology merely

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife, to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

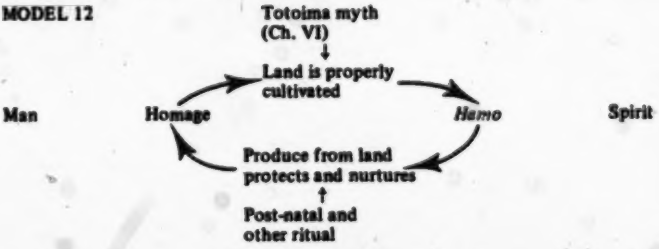
The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

was thought to inhere in his old garden plot and in the products growing there, or more specifically perhaps in the water flowing through the garden, for it is in the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

The ritual formulae spoken by the parents in the garden and quoted above both clearly have the form of a bargain, by which the spirit of the deceased is asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those spirits. The senior member of an extended family, the 'father of the ground' (*enda numa*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 611 from a patrilineal norm are so frequent that it is unusual for any man to hold precisely the same blocks as his father who was *enda mama* before him. Nor do clan boundaries and village boundaries remain unchanged for any length of time. In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 423 425 The first question that needs to be resolved, in the case of the Orokaiva, is whether there is really a *rule* enjoining a man to leave his land to his sons (if he has any). I found the rule to be much more ambiguous. If a man has sons, he is expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system.* The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 423 [554] [768] We have seen earlier in this discussion that the obligation to 'look after' a plot of land formally arises out of an arrangement between an individual (a newly born child) and an ancestor. In practice, however, the ultimate responsibility falls on the head of the extended family, the 'father of the ground' (*enda mama*). This *enda mama* inherits his title from his father or elder brother who died before him. If he has sisters, younger brothers, children or grandchildren, all these will regard him as *enda mama.* Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 [627] Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land could not take possession of it because he had nobody to 'speak for him'. (His father was dead.) Internally, in conflicts between members of the extended family, the word of the *enda mama* is final. Nobody outside the family can

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 benefits between non-agnates? One might answer this question in a preliminary
431 way by saying that land is the only valuable permanent economic asset the
571 Orokaiva have at their disposal for the making of gifts to relatives and close kin.
Such gifts, apart from their economic significance, buttress social relationships
[769] both inside and outside the clan. The recipient is induced to maintain or assume
a filial attitude towards the donor, with all the political implications this may
have; a requirement evident not only from the social responsibilities he is apt to
accept but also from the magico-religious care he must take of the spirit (ancestor
of the donor) resident on the land.

423 Land gifts made to non-agnates should be considered not solely from the
431 viewpoint of sentiment, but also of their social consequence. When gifts are
593 made to a sister or daughter, the husband or son or the recipient must
subsequently, in regular daily practice, show increased allegiance to her family.
The *enda mama* of that land has become, in some ways, similar to a true father.
The recipient is made to feel, however gently, that he is a dependent.
Furthermore, it is a situation which it behoves him to manipulate; his rights are
always ultimately uncertain. He must try to tighten his hold over the land, and
in the end he can do this only by making himself loved, indispensable and
redoubtable in the eyes of his maternal family.

423 The key to the significance of land in mediating relationships of this type lies
425 in the continuing doubt as to the permanence of the land transfer. At the outset
it is often for a single growing season. Sometimes a man is told that he may keep
the land as long as he resides in the village, or for his lifetime. But in practice his
tenure depends on the course of his relationship with the donor. He may even be
told that the land will be his permanently, though this is commonly only when
he is the original owner's sister's or daughter's son. Such a promise of permanent
occupancy, however, is never tantamount to ownership. In the next section we
shall show that it remains hazardous and unwise to grow cash crops such as
coffee on land given by the maternal family as long as fifty years previously,
because even after this long interval claims can be made for the return of the
land or of the proceeds from the crop. Thus a man has to pay very special
respect to his maternal family and have regard to its wishes, if he desires
continued enjoyment of the land. No other type of gift could do so much to
ensure that he will feel a dual allegiance to both his paternal and maternal
family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

[769] [614]

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
659 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
657 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Kóipa, Awala, Waseta, Kongohambo and Hamuni. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
● 769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

829 returned ancestor, but have principles for distinguishing between
769 those who are and those who are not ancestors. A territorial distinction that was suggested to me was that the Northern Hemisphere is generally regarded as inhabited by spirits and ancestors. (It was an educated informant who suggested this.) Some Papuans who went to England for the Queen's coronation could not believe that the buildings, the elevators, etc., had been built by ordinary men. A parcel of clothing, taken from England by a visitor was thought of as a gift from the ancestors.

Israel, Egypt, the Red Sea and other places mentioned in the Bible are especially so regarded. One example of the sacredness ascribed to these places was evident in the reception given to a popular missionary in the Kokoda district who returned to his parish after a visit to the Holy Land. The festivities with which he was received were very much out of the ordinary, and I was told this was because the ancestors had gone to these places.

In accordance with the usual Melanesian pattern, Australia, being the country exercising political and commercial control, was excluded from the vague area to which the ancestors had supposedly gone. On the other hand, New Zealand was not necessarily regarded in the same way as Australia. A young New Zealand geographer who paid a brief visit to Musuni (in the Sasembata district) and to myself at Sivepa had been showered with gifts and one man had pressed money upon him which he was asked to invest in New Zealand, in which case it was expected to multiply a thousandfold. The young man was prudent enough
123 to decline the offer. I do not quite know how my wife and I were
829 regarded in Sivepa, but there was evidence that the surrounding villages
769 likewise regarded us as returned ancestors; I was once drawn into a discussion with a branch of the Jegase clan group at Kiorota, four hours' walking from Sivepa, where it was known that we were living closely with the Jegase clan group. I was asked point-blank whether I belonged to the Jegase clan; later, the Sivepa people told me what the meaning of this question had been. It would seem that this identification with returned ancestors was due less to our geographical provenance than to the type of relationships we had developed with Orokaiva people; both the geographer and we were living in villages, eating with the people and sharing with them; my wife was gardening; our behaviour was not that of the <u>taupa</u>. To this point I shall return.

177 It must be due to reasoning of this sort that Americans were
829 placed definitely in the category of returned ancestors. I was told
769 they were very different from other <u>taupa</u> (or rather, they were not really <u>taupa</u> at all). The American forces, it will be remembered, fought the Japanese at the Kokoda Trail and drove them out of the Northern District in 1942-1943. Both they, and the Australian troops accompanying them, maintained friendly relations with the Orokaiva who helped them in various ways, supplied them with whatever food they had in return, received very generous gifts. The American soldiers ate with the Orokaiva, which Australian officials hardly ever do, and

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[207] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[178] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

829 I thought at first that this representation of Orokaiva history
173 (from the dark ages into a great future) was put on specially for my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

[124] I shall quote in detail one document, a tape recorded speech
[126] made by a councillor in the Orokaiva language, which is typical of the present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of bounds. But after the period of acute volcanic phenomena was over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

[p.82 is blank]

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
177 the concern of our present project. It is very clear that some basic notion of Christian monotheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

177 I have referred several times to the tendency to place ancient
[788] ritual under the protection, so to speak, of the new God. Rituals
[775] connected with the taro cycle were performed at Christmas and Eastertime, preferably on the mission station. While the beliefs about the ghosts

177 of the dead remained basically unchanged, Christian burial rites
[775] and cemeteries are generally used in the belief that they are
efficacious in controlling ghosts. Girls were "shown to the people"
[764] after initiation, preferably on the mission station during the Easter
dances. The kere which was a women's initiation dance, was also
[881] performed on a mission occasion (the celebration of St. Barnabas Day,
in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form
881 of initiation ritual to the Orokaiva? This extramural activity,
177 performed in the dead of night, signified a little more than the
intertribal status rivalry analysed earlier in this chapter. The
[533] text of the songs gives no obvious clues to their significance at the
present time. Though it was made up of at least four or five languages,
due to diffusion of the cycle through the Northern District, I managed
to collect a translation of most of it during a tour of Port Moresby
when we visited knowledgeable members of various Musa River tribes.
The songs evoke a series of phases in a woman's life, stating symbolically
her role in initiation, courtship, marriage, childbearing and feasting.
They are very rich in symbolic content which is not relevant here. But
they contain no message that can be related to any modern millennial
or cargo cult. During a visit to Uiaku, in the Collingwood Bay district,
my wife found that the old women in that village knew the songs but
not the younger ones. This points to diffusion from the Musa to the
Collingwood Bay district some decades ago. All this evidence confirms
the mission teacher's own explanation given to me that he introduced
this cycle in order to keep old traditions alive, in order to give more
strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by
881 the performers especially in the very first dances. They might at that
177 time be doubtful about dance movements and words but not about the
781 demeanour appropriate to the impersonation of spirits. At the very
first practise, even the young girls knew the right bearing, intonation
and rhythm. This was not truly the introduction of an alien ritual;
the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to
777 lend it the ambiguity that was evidently intended. It was not the
177 purpose of the mission teacher to set up this pagan ritual in opposition
to Christianity but rather to bring about its continuity in a Christian
797 order. I have already shown in earlier chapters that the Christian
dispensation is conceived as not only a religious but also and importantly
a socio-economic one--that Christianity, wealth and wage labour are
perceived as part of the same complex. If it can be made to accommodate
women's initiation ceremonies (after jettisoning, of course, those
aspects to which the clergy takes exception) future generations will
have the strength of the forefathers. This desire for greater
strength, in a physical and numerical as well as spiritual sense,
was often expressed to me.

361 mingled more freely as a result of travel on the government
571 roads and trails (which they have to keep in order), trading,
Mission and official gatherings, and other new opportunities
224 for interpersonal relations. One special feature of Orokaiva
life in modern times is the annual burning-off of grasslands
by hunting parties in order to get wild game. This has
[628] probably involved the assembly of larger groups and is one
of the few activities which could induce intersettlement co-
311 operation. The writer sensed the parallel of the crude local
fires set for garden clearing and the general burning-off
of grasslands to the major burning and blackening in the
wake of the volcano—doubtless a mighty job of clearing to
the Orokaiva eye.

157 Within the limits that brief characterizations of personality
norms can be valid, observers seem to agree that the Oro-
kaiva as individuals have traits congruent with the social
structure that favor individuality and mobility. Even the
casual visitor gets a sense of independence, alertness, self-
reliance, "strong talking," dignity, restraint, imperturbability
at meeting the unexpected event, and high-tension inter-
personal behavior in general. This is in particularly striking
contrast to such an elaborately structured society as that
of Samoa, where the writer had been working shortly before.
In informal groups seen around the camps and waiting at
airfields for transport, women and children, far from being
in the background, kept up a busy verbal exchange with the
[657] men. The Administration has considered the Orokaiva ter-
[625] ritory as perhaps the best recruiting ground for its Royal
Papuan Constabulary on the basis of these personality char-
acteristics, including ability to meet crisis conditions such
as patrols may encounter.

771 The Orokaiva religious history is also particularly inter-
esting here. Their traditional faith, Williams says, though
in many respects vague and locally variable, concerned itself
"primarily with the spirits of the dead" and their influence
on the welfare of the living. Death was appraised with
[961] particular realism, although it was considered ultimately as
[789] the result of supernatural causes. Magic had a consistent
place. Orokaiva country, however, has been swept in modern
794 times by a series of new cults indicative of religious adap-
tability in the face of fresh experience. First to come into
prominence was the *Baigona*, or "snake cult" of 1911-12,
succeeded from 1914 on by the so-called "Taro cult" which
in turn had undergone a series of local reformulations by
the time Williams reported on it in 1924.[7] Central features
of the Taro cult were association of successful taro cultiva-
tion with the ancestral spirits, approached by way of a
"shaking-fit" technique of revelation, together with some-
what new types of public ritual and symbols, including frag-
mentary elements from Christianity. Later Belshaw and
others reported that "Christian Co-operative Evangelist"
societies, which were developed by the Anglican Mission
among some Orokaiva converts for the cooperative growing
of rice and other crops, tended to assume a somewhat parallel
404 and absorbing mystical agriculture context. Rumors spread
668 of "an order from the King (of England) that co-operatives
771
[113]

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

should be formed . . . (and that) as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs." This type of cooperative movement was stimulated after the war, and included putting crosses in the gardens, offering prayers before gardening activity, building special houses in which cooperators could meet and eat, and collecting money for vague purposes. Even in the face of Mission reluctance and some Orokaiva opposition, Government finally stepped in to try to give it better direction; a Cooperative officer was trying to bring the situation under control when the volcano exploded.[8]

As final pieces in this background mosaic, the effects of World War II may be noted. When the Japanese moved in they formed labor gangs with the small number of captured whites, including Mission workers, later removing them when Allied attack was imminent. As battles ranged through the area, Orokaiva were drawn in as helpers, willingly or otherwise, on both sides of the lines. After the Japanese surrender, American forces built up large military establishments including airfields in the Buna-Oro Bay zone. Great numbers of Orokaiva were gathered together in work camps which were not unlike the present refugee camps as regards living conditions, food, and social structuring. In the wake of the war, War Damage Compensation representing considerable money wealth by Orokaiva standards came into the area. Some of the younger men who were "veterans" were given technical training at Higatura and elsewhere.

These Orokaiva were generally resistant to a war-stimulated movement to consolidate into larger settlements although it has had considerable vogue along the coast and in the Kokoda region. Typically, the new villages have been built in an open area, with houses drawn up like a military encampment on three sides of a square or rectangle. The inner square is used for soccer football, which is tremendously popular, and for other community purposes. Subsequent to the eruption, the Orokaiva who resettled along the jeep-roads outside the danger zone were encouraged by Government officers to build this type of village, and the houses were laid out under the official eye. First, the men left the relief camps to erect buildings, and were followed later by the women and children. These new settlements contain anywhere from 100 to 400 persons, with the kin and hamlet alignments usually kept through contiguous housing. Such units are within sight of one another, and from the air resemble a chain of fairly continuous settlements. Some family and hamlet groups, however, have inconspicuously avoided settling in these new villages although this has been difficult because Government has tried to keep a very tight supervision in case its judgment as to the danger perimeter has been wrong. A government post was established in each of the two main resettlement zones to facilitate this supervision.

Belshaw has observed this resettlement in a somewhat more advanced stage than was seen by the writer. He comments that in general the prime concern of the people was

8. Belshaw, *op. cit.*, pp. 249-252, gives a fuller account of this cooperative movement and its significance. Publications of the Anglican Mission also contain references, seen by the writer some years ago, but not available at the time of writing this paper.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*sa*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 partners, while objects of mediation are not imaginary and magical, but have a real
772 existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the
[252] squeezed flesh produces coconut cream in which taro and delicacies such as river
[262] crabs may be cooked. Young coconuts are cut open at the top and used for a
[262] refreshing drink. Coconut is reserved for two kinds of everyday food gift:
[272] cooked dishes offered to guests and young coconut offered to visitors on arrival.
[431] Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other
[262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary
[764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it
[146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut
[231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on
[235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance
778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in
[302] the sense that the fluid would drive away dangerous spirits (1930: 175). With
[789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of
[881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these
[761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help
[764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

points. First let us consider exchange partners as though they are strangers, with distinct destinies and personal interests, who decide to seek an alliance with one another for reasons which may range from psychological attraction to economic expediency. From this viewpoint the establishment and maintenance of a social relationship is always problematical and incomplete. The problem of how social exchange can ever get started has been a subject of speculation not only for social scientists but also for the Melanesians themselves.[1] In the Orokaiva folk-system the starting mechanism of an exchange system is presented in the form of a myth recounting a unique free gift made by a demi-god whereby the exchange cycle was set in motion. Historical change is represented by the emergence of a new demi-god setting up new exchange cycles. Once the relationship is started, it is composed of a perpetual cycle of exchanges between the two partners.

We may call this view of exchange phenomenological because it starts from *ego's* experience of a social relationship. *Ego* experiences *alter's* world as transcendant. As Husserl and Schutz have pointed out, social relations are necessarily based on an idealisation of the 'interchangeability of standpoints' (Schutz 1967: 126, 312–29). For that reason they are always to some extent precarious and incomplete. If our method of ethnography is to go beyond pure phenomenology, we also need to view exchange from a second viewpoint which I shall call analytical. From this viewpoint, it is impossible to conceive of the making, receiving and reciprocating of gifts by individuals in any culture unless that culture has conceptualised in some way the complementarity of donor and receiver. This notion of complementarity is inseparable from all our discourse about giving and receiving. For instance, in the present work I shall write a good deal about the exchange relationships between mother's brother and sister's son, husband and wife, son-in-law and father-in-law, friend and friend, creditor and debtor, victor and vanquished. Not only have the patterns of relationship linking these dyads been laid down by Orokaiva custom, but the complementary nature of these relationships is already implicit in the words I have used to describe them.

Although one might, with Nadel (1957), describe these dyads as logically related *roles*, this could give the impression that I am concerned merely with a set of rights and obligations that the role partners have *vis-à-vis* each other. The present work, however, deals with economic and psychological as well as normative aspects of dyadic relations. In a study of corporate groups, one must assume that exchanges between a dyad (*Ego* and *Alter*) are determined by corporate obligations. In a study of exchange systems, however, one must assume that the exchanges are in principle voluntary, and that normative rules specify no more than a code of behaviour by means of which it is commonly believed that *Alter* may be induced to do what *Ego* wants. (This desired object is often no more than the establishment or maintenance of a social relationship.) There are often no positive rules obliging A to fit in with E's wishes if E performs some specific act of liberality. For reasons shown in detail in later chapters, I prefer to think of acts of giving as magical rather than as obligating devices. I do not thereby question the importance of norms in explaining social regularities. Magic certainly contains norms: acts which are regularly performed to bring about certain ends because such acts are thought to be especially effective in eliciting a generous response.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 says that at the end of original time, warfare became an intrinsic part of social life. Two more specific messages emerge:

[126] 1. The institution created by the thief was *isoro* (intertribal warfare) which was cogently distinguished by Williams (1930: 160–6) from *embogi* (inter-clan fighting). *Isoro*, as opposed to *embogi*, takes place between groups who are geographically fairly distant, are often the speakers of different languages or dialects, and who do not usually maintain close social relations. In *isoro*, but not *embogi*, men fight to kill and eat each other. The myth therefore provides a charter for an institution by which social groups are in permanent strife with one another and permanently seek to kill and eat each other.

2. The myth states that this trife, in particular, divides the people from up-hill and down-valley. I have already pointed out that the main immediate cause of warfare around Mount Lamington was pressure of population generated on the fertile foothills, which led to groups being driven downwards, while these groups in turn drove the valley people further and further from the mountain to less desirable territory.

773 The social philosophy expressed in this myth is therefore based partly on the
829 observation of ecological realities. Given a fertile centre and an increasingly infertile, but practically boundless periphery, strife is indeed endemic between social groups because the centre will continue to develop a denser population than it can support, and will always be able to muster much bigger raiding parties than the sparsely populated hinterland. It may lose battles now and then but in the long run it must be able to drive its excess population downwards. Thus the opposing forces will tend to be placed, as the myth says, up-hill and down-valley. The historical facts, as reported by Chinnery and Beaver (1916), Monckton (1921, Ch. XXIV) Williams (1930: 152–4), and Crocombe and Hogbin (1963: 14–16), all suggest that valley populations such as Aiga, Sauaha and Dobudura originally lived near the mountain and were driven off.

829 So far, Orokaiva social philosophy looks notably like Hobbes' view of social life as it would be in a state of nature. Between the warring groups, certainly, there appears to be no justice or injustice, but only war, and 'force and fraud are, in war, the two cardinal virtues'. How can fiduciary social relations be established at all in a world of this kind? As we know, Hobbes argued that it could be done only by the establishment of central authority, a step the Orokaiva did not take.

773 In order to present, as fully as possible, how the Orokaiva answered this
[126] question, I shall begin by quoting a myth told to me by Gideon of Hamburata, a village in the Sasembata district.[1] I had asked Gideon to tell me the origin of feasts, then taped the reply and translated it from Orokaiva:

> I shall tell you how feasting began.
>
> Three men, after marrying wives, set out and settled by the root of a *bariyo* tree. They had twelve children. When they had enough children, they built a house and founded a village. Then, deciding to leave, they made a feast by the root of that tree.
>
> They all collected taro, made a platform, prepared all the food and got ready. Gasi, the last-born son, tied together his taro for the feast, intending

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

that it be there for his mother and father to eat. As he slept that night before the feast, Ombota stole the food. That man's garden was empty. He had no food, so he had nothing for the feast. Therefore, looking for food, he had stolen that taro for his mother. 773

The day broke, the feast was in progress and Gasi's mother and father were very hungry. Then Gasi looked about for them. Straight away his parents asked: 'Where did you prepare food for us? We are now very hungry.'

That boy asked in reply: 'Where is the taro I fetched for you?' – 'We have no taro and we are very hungry.' Upon returning inside the house to look, Gasi then saw that the taro had gone. So he went round the houses to look for that taro and saw it lying in Ombota's house.

As Ivi and Gasi quarrelled with Ombota, the mother and father went down to Erehata creek, taking with them their entire small house, as it stood on its posts. They floated down that stream until it met the river Embara. The woman's name was Jomiko and her husband was Sirere.

They stopped when they had reached a place called Sorovi-Ereremba. Meanwhile their sons, about to give the feast, inquired where their parents were but could not find them. When the battle (*isoro*) was over, Gasi and the oldest son, Havururе, went away to find their mother and father. Upon arriving at the place called Sorovi-Ereremba, they saw them where they had come to a stop. Their parents told them: 'We are staying here but you must go back and feast.' The sons then went back, but their mother and father stayed behind.

At that time, their parents' words were as follows: 'We are staying here. In bad times you will hear no speech from us but if times are good, and you intend to hold a feast, then listen to our speech.' Thus they spoke.

Sirere turned into a stone which is still there today. In time of hunger we do not hear his speech. In good times, when a feast is about to be held, we hear his speech.

My small tale about feasts is finished.

Before discussing the meaning of this tale, I should explain briefly some ethnographic details. It is customary to hold a feast on the occasion of a departure, so the brothers' decision to hold one agrees with modern custom. On the other hand, it is irregular indeed to hold a feast unless it is known in advance that there is enough food for all the guests. A feast is always preceded by elaborate and highly ritualised checks to make sure that the supply of taro is abundant. We may regard the tale quoted here as a mythological charter for these ritualised checks which are discussed in detail in Chapter VII. It is still usual, however, for guests at a feast to be fed in the individual households where they are staying. Thus the taro used for cooking would be kept, as in this tale, in individual homes. The gift taro, laid out on platforms, falls in a different category. 773 574

The house in which the parents floated away must be understood as the prototype of the feast house. This is a small structure placed at one end of the central plaza (*ngaha*) of a village. It is built a few weeks before the feast and it is in front of and in the feast house that rituals are performed during the whole of the period that ceremonies last. We may take it that Jomiko and Sirere are 773 574 345

773 574 [345] [554] demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a person occupying the office of feast leader who is charged with the ritual as well as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> other... Two or three from either side would spend a few days and nights with the opposite party, and after this the two tribes would meet in armed force on some common ground between their territories to exchange gifts of pigs and ornaments.... (1930: 166)

Williams emphasises that such *peka* were precarious and often mere stratagems for killing more enemies. Nonetheless, feasts were held at intervals, former enemies were invited to them, and when they did happen the slate of old hostilities was wiped clean. No doubt, hostilities of the same kind would often occur again once the feast was over. Nonetheless, if there was no treachery, the feast was an occasion when the estrangement existing between social groups could be overcome in a communion ritual in which primeval amity was restored.

The notion of the feast as communion ritual is most clearly stated in a series of myths, of which the most widely known is that of Totoima. Some of the most celebrated stories about Totoima – his practice of killing men and eating them while wearing pig's tusks, and of killing and eating his children as soon as they were born – are reserved for other chapters of this work. All the stories about Totoima, however, have a similar ending: by some trick (his son stealing his teeth, his son feigning death and concealing a spear, his wife or sister raising many children out of blood from a cut finger so they could murder him) Totoima was killed in revenge for his iniquities. In many of the versions, which we shall discuss in Chapter VII, Totoima is neither fully a human being nor fully a wild pig but rather an undifferentiated pig-man partaking of the nature of both.

Totoima's body was cut into the joints into which pigs (and presumably slain humans) were traditionally subdivided prior to being shared out between guests at a feast. Those who ate the joints multiplied miraculously so that their descendants peopled practically the whole of the Northern District. Usually, at a feast, the joints would be given to the heads of different nuclear or extended families. In this case, the family head who received the right fore-leg became the ancestor of all the Mambare people; the recipient of the left fore-leg became the ancestor of the Opi people; the right hind-leg became Sangara, the left hind-leg Isivita, the head became the coastal people, the back Kokoda, the belly Togahou and the 'liver' Angerita. One might say therefore that Totoima was the primal ancestor of all these warring tribes, and as Williams shows (mostly in his unpublished manuscripts) all the tribes listed here have retained some similar story.

But Totoima was a primal ancestor in a special sense. Strictly, in most of the versions, he was not the sire of the people who ate his meat. He is not, therefore, an ancestor in a genealogical sense. But it was his meat that miraculously caused these small families to multiply into tribes. Thus it was his strength, his *ivo*, entering the bodies of those who ate him, which really caused the tribes to multiply. The tribesmen became the inheritors of his *ivo* and it was from this that their power arose. Totoima was their ancestor in the sense that they had his *ivo*. We are thus led closer to the underlying pattern of Orokaiva political philosophy. As a result of the primal quarrel, the affair of the stolen lashing, social groups were separated by a permanent *isoro*. At the same time they are bound together by a primeval communion, the common eating of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course; a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 delayed or altogether flounder and the relationship may be prevented from developing.

Gouldner's answer to this dilemma was that there must be a 'norm of reciprocity', internalised in both parties, which *obliges* the one who has first received a benefit to repay it at some time. Other sociologists, such as Blau (1964: 92–3), do not accept this particular explanation, because they do not believe that all social constraints are normative 'and those imposed by the nature of social exchange are not, at least, not originally'. Blau argues, in short, that the advantages to be gained from entering into exchange relations are psychologically so compelling that dangers and suspicions are insufficient obstacles. Even those who fully agree that not all social constraints are normative may feel dissatisfied with this psychological non-explanation.

Let us now consider how the dilemma can be solved in terms of Orokaiva social philosophy as presented in previous sections of this chapter. Orokaiva recognise that social exchange is precarious but claim to have various (magical) devices which are successful if properly used. These devices appear in my model as mediating elements. Why do Orokaiva believe in their effectiveness? They do so because the mediating devices have been instituted by demigods whose heroic feats they re-enact in their rituals. There is a strict code saying what should be done and how it should be done. The exchange fails if the code is not followed. What we have is not, as Gouldner suggests, one norm of reciprocity, but a wide range of codes deriving their authority from mythical demigods. The 'starting mechanism' is, in effect, the whole of Orokaiva mythology. I have been unable to find a charter in this mythology for any rule that a person who has received a benefit should repay it; in other words, I do not know of an Orokaiva mythical charter for a norm of reciprocity. All I have encountered are rules stating what acts are necessary if certain types of exchange are to be effected successfully.

776 I shall clarify these generalisations by giving a brief account of the nature of
171 these demigods and of the rules they instituted, so as to be able to set out more
773 clearly their role in the Orokaiva exchange system. The demigods of the Orokaiva resemble those found throughout Melanesia. Not all the cultures who believe in such demigods have a generic term for them. The Marind-anim of Western New Guinea, however, use the term *dema* to refer to all beings who lived in original time, to whom the creation of a feature of the cultural order is ascribed, and who are celebrated in myth and ritual. I shall follow Jensen (1960) and borrow the Marind-anim term, though other terms used in anthropological literature (culture hero, transformer, etc.) have a somewhat similar meaning.

Jensen presents a useful generalised portrait of these *dema*, as they are found in cultures of tropical tuber cultivators. In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a *dema* but through the circumstances of his death or departure, which make his *dema*-like nature apparent and give rise to an institution. Thus, Totoima became a *dema* as the result of his body being shared among his people; Jomiko and Sirere became *dema* after departing, in their peculiar way, from the world of man. Similarly the coconut *dema* is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of

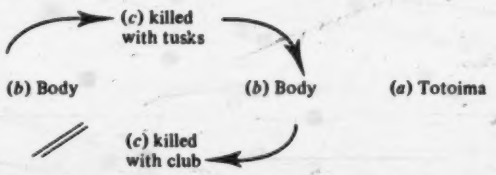
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

776 773 171 son (a man) killed his father with a club, a human weapon. Furthermore, the order of superiority was reversed: it was now no longer man who was killed by a tusked being; man became the killer, pig became the quarry.

From this analysis it would appear superficially that it is not Totoima but his son who ought to have been revered as the *dema*. It is he, after all, who has effected the differentiation between man and pig, who has provided man with pig as his quarry. But this is not how the Orokaiva reason. It is the same with the *dema* Pekuma to whom the technique of meat-roasting is ascribed. Pekuma is not the man who invented, by his own ingenuity, the technique of meat-roasting. He was the victim of another man who played a trick on him, dropped him in a hole, and roasted him. He tasted delicious. The Orokaiva remember Pekuma because he *was* the first roast meat and Totoima because he *was* the first quarry. The gift for which they are celebrated is not their inventive ingenuity but their body, in the form of food. Like the victims of cannibal raids, to whom Jensen devotes a lengthy discussion, the *dema* release their spirit power by the deed of being sacrificed, and this spirit power then becomes available to the killers and to all men.

We have seen, however, that the killing of Totoima was not an isolated event; it was done in response to Totoima's own murderous activities. As Jensen points out, in the life history of the *dema* some fault usually occurs, either committed by the *dema* or someone else, which is represented as the cause of death. We may thus, to some extent, view *dema* myths as a special kind of truncated exchange cycle. Totoima's story, for instance, might be represented in the following diagram in which Man and Totoima are the exchange partners, both of whom offer their body as an object of exchange (or sacrifice):

MODEL 5



In this as in all myths, the exchange cycle is incomplete, as the completing of the cycle in the model would imply that the cycle is intended to repeat itself *ad infinitum*. But the whole point of the myth is that after Totoima it is no longer normal for man to be killed by a pig's tusks, but that pig becomes the normal quarry of man. The world, indeed, has been completely transformed as a result of pig having become man's quarry. Man is now able to multiply rapidly, deriving a great new strength from the pig-meat he is able to acquire. The exchange cycle shown in model 5 has therefore, since that time, been replaced by institutionalised feasting where pig sacrifice appears as an essential mediating element (model 1).[A]

773 574 We may therefore regard truncated exchange cycles such as are shown in models 2 and 5 as the starting mechanism of Orokaiva exchange. To put this more concretely, let us consider the large platform heaped with taro that is

A [See Category 574, p. 58--Analyst]
B [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tendency is to use money income to purchase goods needed for daily life but obtainable in the subsistence sector of the economy (Waddell and Krinks 1968: 192). Only a small minority of the goods used by Orokaiva fall into this category, but if the tendency to exclude most store-bought goods from the gift exchange system continues, we may expect that system gradually to decline in importance as the monetary sector of the economy increases.

In the political sphere, the traditional system of control is still generally in operation at the village level. Under this system some men may exert great influence over a community, but they cannot enforce compliance by physical sanctions. While the Orokaiva generally maintain this system, an exception is made for councillors and committee men acting under delegated power from the government. These men may lay complaints with Australian authority and in practice do not always disdain to do so. Among the New Zealand Maori, any leader who so much as threatens to invoke European authority risks being nicknamed 'Mr. Government' and losing all influence. Not so among the Orokaiva; the argument is that it is better for such powers to be used by an Orokaiva official than by the government itself. Nonetheless, use of authority outside the extended family goes against the Orokaiva ethos and undermines the exchange system in a minor way, because an official, by invoking his *authority*, can obtain something from Alter without becoming indebted to Alter. A traditional leader, under the same circumstances, might have incurred a debt or drawn on a kind of credit balance. Here again, the departure from the traditional exchange system does not greatly intrude in everyday affairs, but is symptomatic of the type of changes social development would bring. There has thus been a growing inconsistency between the norms of the traditional exchange system and the facts of labour migration, cash cropping, adherence to the Christian Church, attendance at meetings called by councillors, school education, use of medical services, changes in house architecture, participation in women's clubs, savings and loan societies, rubber co-operatives and the like. How, if at all, did Orokaiva thought cope with these basic inconsistencies?

I have explained how traditional institutions are accounted for. When I inquired why it is that mankind wears clothing, makes fires, contracts marriages, I would be told myths about the *dema* responsible for these institutions. I would also be told that after the *dema* had shown men how to act in these matters there had never been any change. There was primordial time during which men lived, one might say, in the state of nature. In spite of the absence of strife and death that era was not invariably represented as a happy one. Women were desolate because they had no men to marry, no fire to cook with, no houses to live in. In spite of most obstinate and desperate efforts, graphically described in the myths, mankind failed to get the things it needed. The *dema* thus brought release from suffering when they introduced cultural goods, techniques and rules of behaviour. But after the *dema* died, nothing ever changed again.

While such beliefs belie any suggestions that the Orokaiva are without history,[1] it remains true that the Orokaiva repertoire of historical explanations is very small. The actions of the *dema*, the scission of lineages comparable to the branches of a tree, the settlement of villages by men sleeping under a *barevo* tree – this completes the set of traditional historical explanations of which I have knowledge. How could the Orokaiva, confined to this set of concepts, find

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a rationale, satisfying to themselves, for the behaviour patterns they are now adopting in response to the impact of the white man's power? This is the question to be explored in the next section of this chapter. I shall put foward the suggestion that the Orokaiva actually developed an interesting and satisfactory explanation of recent cultural changes, using the concept of a new *dema* who set new exchange cycles into motion. In demonstrating this point, I shall quote at length from informants' statements so as to indicate clearly the nature of the primary evidence on which I have drawn.

2. *A New Starting Mechanism*

I shall begin by quoting a tape-recorded speech made by a member of the Higaturu local government council at a meeting held at Torogota village, Sasembata valley.[2] The reader may well doubt the sincerity of this speech, as I did myself when I first heard it. I discovered, however, that councillors frequently address meetings in similar terms. Trusted Sivepe informants told me that the recorded speech is typical of what that councillor usually said. It was elicited when I asked the men of Torogota for tales about olden times (*iji matu*).

The councillor started with a sketch of the wars of his forebears. His 'grandfather' Bohuka, with a group of migrants from Waseta, and other villages, drove off the inhabitants of a village called Hingo Kakasita and settled on the land of that village:

> Today his grandchildren call this our land, but they are weak grandchildren of strong ancestors. . . . All this is communal land (*company enda*) conquered by our forebears. As a new day has now arrived, I tell you to be united. Therefore you must follow my instructions. The councillor for Sasembata is speaking. Everybody who speaks north, east, south or west should now stop.
>
> Now I am speaking about this old village here. I am Councillor Ase. I am saying: follow this word and hear it. I shall therefore tell you how they (i.e. the Europeans, the *taupa*) talk: 'Those men were all felling the tree. The man whose name I mentioned was a fighting man. His enemies killed the wayfarer like a dog. The Waseta people beat and chased them, came here and stayed.'
>
> I am councillor Ase. Here we live, people, in this very old village. We are the descendants of fighting ancestors, therefore we live here. We say that we live in the land where the *seha* grows (a useless bush tree) or where the *inota* grows (a useless cane looking like a sugar cane) or on *gindiri* (i.e. sandy, infertile) soil. We stay in an old village, but people are saying we are living on communal land; we are staying on a place we took during a raid. They are saying: 'The Waseta men had weak descendants. They stayed here because they were defeated.'

A little later during the same recording session, Councillor Ase spoke again. This time he started with a description of various magical powers traditionally possessed by the Orokaiva. He continued:

> In those days people did these things. They did not take jobs for only Jesus Christ gave jobs that people could take. The village constable bound people (with handcuffs) and took them if he believed they were telling lies. He took them to Kokoda and Court was held; then they would start work . . .

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 776 177 [535] a victim and Christ's Passion. He also pointed out that by performing this chant, the dancers were sacrificing their bodies to Christ. There was no harm in this performance, he said, because the sentiments in both forms of religion were the same.

Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *bo* he bequeathed upon mankind.

182 771 776 177 It now becomes a little clearer how the Orokaiva have found a rationale, satisfying to themselves, for the behaviour patterns they are adopting in response to the impact of white power. The coming of the white man is viewed as an event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash cropping. My informant the councillor, whose contact with white authority had been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

[623] [115]

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 773 [731] One experience at Hohorita made me aware how closely the introduction of Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption, their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

   Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.
2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

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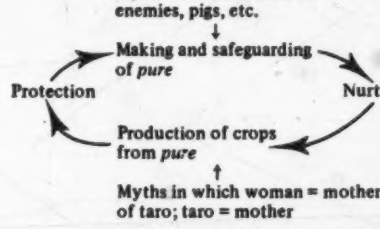
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

felt to be a feminine thing. In the myths it is the mother who buries the taro shoots (her children) and covers them with leaves and earth which are equated with her body. I shall show this in more detail in the next chapter.

In Williams' report on the division of labour, planting is shown as a female task, whereas the time studies of Waddell and Krinks suggest that the activity is actually shared by the couple. There is no real contradiction here, nor much evidence of change, as the man's task is to pound holes into the soil with his digging stick whereas the woman does the actual planting, or burying (*kovari*) of the seed.

Unless the normal rules are suspended, as happens at feasting time, men do not harvest taro or other products of the *pure* where taro is planted. (The rules are different for the yam garden as we shall see later.) The explanation that is given of this rule is that only the women know how to harvest crops to best advantage, i.e. at the right time and in the right quantities. If men harvested, the supply would never last through the lean season. The woman is responsible for nurture, in the widest sense. It is her task every day to bring home garden food in the large string bag suspended from her head. Contrary to what white observers have sometimes believed, this is not a symbol of female slavery, but rather of female power and it is done proudly. When my wife started to bring home produce from our own garden in Sivepe (in a different kind of bag), the women crowded round excitedly and congratulated her. The food gifts that are constantly sent from one household to another may be, at least partly, regarded as a display by the women of their own success. The products of the taro garden (though not the yam garden) may ultimately be regarded as a gift from women to men. We may summarise the total transaction as follows:

MODEL 11



On the basis of such a model, what precisely is the nature of 'rights' in land enjoyed by husbands and wives? A simple analogy would be a jointly owned machine of which one party controls all the bolts and the other controls all the nuts. The assets of neither party have any value independently of the other. Value can be created only by the co-operative *action* of screwing together bolts and nuts. Land transactions between Orokaiva husbands and wives are similarly a sequence of cumulative co-operative actions, such that each move by one party calls forth an appropriate response. The only 'rights' are 'rights' to responses once certain moves have been made. Legal disputes can in practice arise only if

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

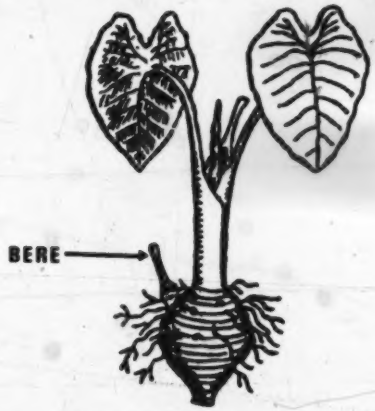


Fig. 7. *Colocasia esculenta* (taro).

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OJ23 Orokaiva OJ23
Mountain Orokaiva

gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

I shall begin the analysis of taro symbolism with one myth especially rich in content, which includes all of the five characters, some of whom, in one way or another, appear in all the myths. It also stands out by the clarity of its detail on the cultivation cycle. As I proceed, I shall discuss some variant myths which emphasise certain themes omitted in the main one or convey the same message in different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

child into the water because it was bad,' she replied. 'I am going to collect cabbage.'

(*Commentary*: The reference to the water is the first of a series of apparent lies which always hide a symbolic truth. In this case it is easy to see the meaning, as several myths exist linking the origin of the taro with water. In one myth a woman was prodding the ground with a digging stick. She found water there (and this was the origin of water); later taro grew in that spot. In another myth a boy and girl who were siblings were washed away in a flood on a coconut tree. At the place where they finally landed they discovered taro. Taro, being identified with a human child, is thought of a growing in the water of the womb. The growth of the taro plant requires a very great deal of water and heavy rain so that the growing plant actually lives in a watery environment, which thus resembles a womb. In this sense, her statement is true.)

4. 'I am going to collect cabbage.' Having said this she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said: 'Wife why did I see you cry when you climbed to collect cabbage?' 'When I went to collect the cabbage the sap squirted into my eyes and I rubbed them,' she said. 'You are lying,' he said.

5. When the children were fully grown, she took them to the mountain far away. She told them their history; 'therefore, I must leave you behind and you must stay,' she said. When she joined her husband again, he asked: 'Why did you stay away so late?' 'As soon as I had done my work and planted my seed (*bere kovitie*), I started on my way home,' she said. 'Woman, you are telling lies,' he replied. When the man understood what his wife had been saying, he went away.

(*Commentary*: When a taro is fully grown it begins to grow shoots on the side of the main rhizome. It is then the duty of the woman to take cuttings from the plant. Strictly speaking these cuttings (Orokaiva: *bere*) are tops of corm-bearing bases of petioles (*Vide* Barrau 1965). These cuttings[1] are taken to a new garden being established, usually, at some distance from the old one. When the husband heard his wife saying this, he understood at once that she had been hiding the offspring she said she had thrown into the 'water'. He could not know, however, that his wife had had twins and this became his undoing.)

6. The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling (*du ate*) had gone to collect taro while the male sibling (*du bite*) was lying asleep with his chest turned upwards in the shelter (*guga*). It was there that the man found him, understood at once he was his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

(*Commentary*: I do not know whether the narrator of the myth made a mistake when he said at the beginning that the hidden children were 'male twins'. There is no doubt whatever that at the stage the story has now reached they are siblings of opposite sex. While we cannot rule out the possibility of a narrator's mistake, my informant was an unusually reliable one and it is quite possible that there was an actual change of sex. This will become clearer later when we analyse the significance of male and female roles in this tale. The horticultural reference in this passage is to ordinary harvesting routine. The woman digs the taro and places them in a *guga* or shelter where they stay until

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 she takes them home. The brother is clearly identified with taro growing in the
773 field.)
244 7. The story tells in more detail than is relevant here how the sister learned
539 what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers.
[262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were
[715] discussing the jungle. It was above all a place where the ghosts (*sowai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sowai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[715] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as
[784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gaga* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teijo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gaga* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gaga* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

In addition to father, mother and twins, the myth contains a fifth character, the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

If female nature, in its pure state, is found in the taro garden and male nature, in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

The analysis of this myth has enabled us to understand more precisely the sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'. The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

Gifts of taro may mediate either the establishment or perpetuation of a social relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by every Sivepe household every day. In the twenty-eight days for which I took

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

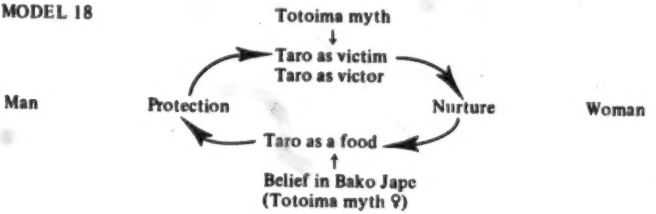
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5) but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] 824 773 hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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539
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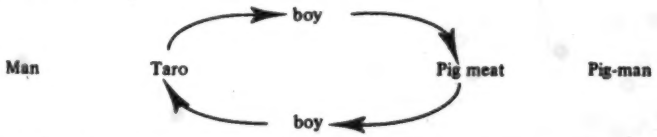
A man and a pig (apparently a pig in form but really a man) were up a tree together after fruit . . . the man gave the pig a push and he fell down . . . helpless. Another man came along with a dog . . . the Man-pig cried, 'Hold your dog or he may bite me.' He then asked this new man to build him a house . . . this done he asked for food . . . and an arrangement was reached by which this man always sent taro, etc. from the village to the Pig-man's house . . . and in return received a brought real pig. But the man grew lazy, and once sent his son with the taro. This so annoyed the pig that he tried to kill the boy . . . but he made his escape back to the village . . . After this the Pig-man thought the villagers would want to kill him . . . so he took to the bush (Notebooks 1923, W. 56).

This myth is concerned with the question why man and pig are differentiated species with separate assigned domains.[2] The pig-man of the myth (like Totoima discussed in an earlier chapter) is clearly neither fully man nor fully pig, but has an intermediate position. The assumption appears to be that in primeval time the present discontinuity between the species man and pig did not yet exist. The myth describes how this discontinuity came about and distinguishes two stages. At the outset there was no differentiation at all, a state symbolised in the myth by the image of pigs being able to climb trees. But even then they were less capable of arboreal life than man; man pushed the pig from the tree, thus inaugurating the first state of differentiation. An exchange relationship was now established whereby each partner offered the other the products of his own capacities. But there was an asymmetry in this relationship, as man offered a house and taro, whereas pig was able to offer only his own offspring. This state of equilibrium may be expressed by the following diagram:

MODEL 21



Except for the friendly intervention of the boy, this diagram represents the pattern of exchange that persists to the present day, as wild pigs take man's taro and man takes the pigs from the bush. But man defaulted in this exchange, omitting to send taro. Man thus set in motion the usual process of breaking a relationship. He sent the boy but the response of his neglect was not pig meat; it was anger and an attempt to kill the boy. The boy now ceased to visit pig-man: the social relationship between man and pig-man ceased and thus pig-man, bereft of social relationship, ceased to be 'man' at all but became fully pig. From that time on pig (no longer pig-man) kept to the bush and the exchange between man and pig was no longer friendly but hostile. Pig still takes man's taro but it is no longer given to him; he steals it from the gardens. Similarly, man still takes pigs, but he hunts for them in the bush.

[792] The separation of man and pig leads immediately to the division of the world

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 to a man who had lent an ornament for a recent ceremony. I was told that meat
825 is sometimes kept for 'months' so it can be offered at a feast or used to discharge
571 an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] While the economic motivation in the final disposal of the joints is plain
431 enough, it is less easy to understand the elaborate exchanges immediately
[437] following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give
[262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which
[778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 These beliefs do not, in themselves, explain why it is considered better for
262 meat to be given rather than consumed by the killer. They do, however, carry us
224 back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son
431 slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world.
● 773 The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 Pig meat provided at the more important ceremonies of the Orokaiva comes far
825 more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 621 244 The first plans for a feast are laid at least one year in advance, as it involves extra plantings of taro as well as economising on pigs. By the end of December, the feast taro ought to have finished flowering and the tubers ought to have formed. It is only then that the chances of an abundant harvest can be reasonably assessed. The feast-giver stealthily tours the village gardens to see whether the taro are 'ready', collecting tubers in gardens where tubers have formed and collecting flowers in those gardens which are lagging behind. He hides these specimens in his house. If his examination has been successful, he calls a meeting attended by all the men of the village (but not the women) at which the assembled people formally acknowledge that they are planning a feast. The leader will display the taro and the flowers he has collected, thus demonstrating visibly whose gardens will and will not be able to contribute food to the feast. The meeting decides who will be invited to the feast. The men share the meat of an animal, traditionally a pig, but nowadays often a rooster.

This ritual is clearly intended to remove obstacles that might prevent [773] harmonious social relations from being established at the feast. I have already discussed[5] a myth which contained a charter for this custom of examining the gardens: it told the story of a food shortage which caused a quarrel and concluded with the enunciation by a *dema* of a rule that feasts should in future be held only in times of abundance. It is not sufficient, of course, for the people to say and to believe that there will be abundance. Abundance must be established ritually so as to be placed beyond human dispute.

574 621 [554] The pig sacrifice at this meeting serves to remove any latent hostility between the men of the group, so that all will be united and co-operate unreservedly towards the success of the feast. Though the *pondo kiari embo* tends to be a man of much influence in the village, he does not normally have any authority over resources held by any extended family other than his own. It is only for the specific purpose of feast-giving that he is given such authority, and it is limited in time from the meeting just described until the day of the feast itself. The [422] [425] meeting thus temporarily changes the authority structure of the village. The growing taro crop and the available pigs become, at least ideally, the corporate property of the village, whereas normally they are family property. The *pondo kiari embo* becomes, at least formally and ritually, the controller of this property. The unit of the group of offerers of the sacrifice is a necessary condition for the success of the rituals that follow.

621 574 431 276 562 The same principle underlies one detail of the ritual taro display to which I have not yet made reference. At the meeting 'special betelnuts' (I do not know just what medicine is used on them) are distributed by the feast-giver to be shared, after the meeting, between the men and their wives. The men are to ask their wives whether the taro are ready. This is a ritual question, as the men go to the garden daily, but it is the women who are supposed to have charge of growing taro and – in a ritual sense – the men therefore do not know. After receiving an answer to this question, the husband will share the 'special' betelnut with his wife. While the enacting of this ritual would make even the most slow-witted of women aware of what is afoot, the women should still supposedly remain ignorant of the plan to hold a feast. Informants readily admit that this ignorance is a fiction. The significance of the shared betelnut is to provide against the anger a wife might feel when the taro harvest over which she has ritual control is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*sa*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 824 539

But this handsome young man, also, is pierced by the girl's breasts and killed. The brother buries his brother-in-law, then kills his sister and buries her beside the other grave.

After a mourning period the brother takes his wife to the two graves. They find a cocopalm in full bearing above the sister's grave. An *areca* palm has grown over the grave of the young man. Heaps of dry nuts are lying on the ground. That is how these two palms originated. He says:

> Wife, as we come close, we see coconut and *areca* growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry *areca* nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune (*embavo*) and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the *areca* growing on *dambo's* grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them, they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, cocopalms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths (*peperuma*) which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I began to understand that my sister had killed the men I had carried to their graves and buried. . . .
>
> When a man has collected *areca*, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the *areca* is a girl; for this reason, girls give *areca*.

773 824 539 582

On the level of social structure, this myth is concerned with the Orokaiva institution of sister exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5 per cent of all marriages), sister exchange marriages are strongly idealised, as I have shown elsewhere. In this myth, a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can sleep safely, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister exchange marriage.

773 824

On the level of social exchange, the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1(*a*) The man fetches the nuts from the tree.	1(*b*) The woman *helps to fetch* the nuts from the tree.
2(*a*) The man gives the nuts to the woman.	2(*b*) The woman cooks the nuts for the man.
3(*a*) The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*) At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 suppressed. The third opposition is in fact the strongest, but it is stated in a
824 rather elliptical manner. We are told that, in ritual, girls give *areca* to men, but
539 the opposite statement is omitted, viz. that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, *areca* feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a 'fact', but is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra; – *ainge eto* ikena.

This passage, (translated above, p. 17) contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man. *Because* coconut belongs to a man, *therefore* coconut is masculine. *Because areca* is a girl, girls give *areca*. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

When I heard this tale, I could not help arguing with my informant. I said: if the coconut grew out of the girl's grave and she later gave the coconut to a man, would it not follow then that the coconut is feminine? My informant received this argument with a tinge of pity. It proved to him, if any proof were needed, that white men are indeed quite incapable of abstract reasoning. It took him some time to understand what problem I could possibly be having. Finally he said: 'The girl intended these coconuts as gifts for a man; therefore, they must be masculine.' At that point I remembered I had heard this argument somewhere before: in Levi-Strauss' introduction to Marcel Mauss, *Sociologie et anthropologie*. If we produce something that is *intended to be given away*, it was called into being by a prior relationship between donor and recipient, and could not be utilised by the former without losing its predetermined nature.

We find the same line of thought elsewhere in Orokaiva culture: pigs cannot be eaten by those who reared them because they are, from the beginning, set apart as gift objects. The most striking and intimate instance may be found in a myth of a woman who has a detachable vagina. She pretends to her husband she has lost it: 'I dropped your vagina in the water.' The husband looks for it between the stones of the river: 'I am looking for my vagina.'

In all these cases the gift object partakes of the nature of the recipient. However, the narrator appears to follow a quite different line of reasoning when he says. 'Because *areca* is a girl, girls give *areca*.' There is an apparent contradiction here, resolved only when we recognise that two different types of gift must be distinguished – perhaps we are allowed to call them metaphoric and metonymic. If we call a coconut a man or a man a coconut, we are using a metaphor. Furthermore, if we proceed to call an *areca* 'a girl', we are setting up a metaphoric opposition (coconut/*areca*) which corresponds to the real opposition (man/woman). When Sperber (1968) speaks of 'code structures', he is

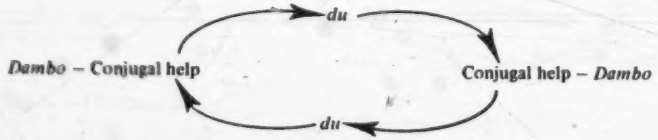
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

principally referring to classificatory systems built up from such metaphoric oppositions. When I use the term 'metaphoric gift', I mean a gift about which we are told in a story, the message of the story being that gift and recipient are metaphorically identical. The point of the story is to establish the symbiosis of men and women, the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bullroarer, golden apples, mirror, knuckle-bone, tuft of wool) which de ined his nature. In the same way, in Orokaiva myth, men are given a coconut nature and women an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognised as a man because the palm germinates slowly and the fruit comes to maturity slowly ('it comes slowly'). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. *Areca* may be recognised as a girl because it germinates and comes to maturity quickly – the fruit matures faster than the coconut. Likewise woman is quick to be sexually aroused and to feel desire for a man. In this analogy the botanical facts are evident but the psychological generalisations describe no more, perhaps, than Orokaiva role expectations.

We may clarify the myth and its philosophical message to a certain extent by an analysis on the level of exchange cycles. The fundamental cycle is obviously the following:

MODEL 29



This is the model of sister exchange marriage where two men become brothers-in-law by each giving their sisters (*du*) to the other in marriage. If we now remember the identification between woman and betelnut (*sā*), and the social relationship which is considered normal between *dambo*, we may substitute as follows:

MODEL 30

We thus derive the rather interesting conclusion that the sense of an exchange of betelnut between men is that they are symbolically exchanging sisters. This is a rather bold conclusion which is best left as a speculation to be explored in later

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

enquiries. The same applies to a second conclusion that may be derived from the myth: that a man who gives a visitor coconut to drink is symbolically giving his own sexuality.

6. *Analysis of the Myth*[4]

As these implications of the model may arouse scepticism, a more analytical study of the myth seems desirable. One procedure which may lead to clarification is to compare the coconut/betelnut myth with the myth of Totoima discussed in previous chapters. The structural homology between the two myths is obvious enough. In the Totoima myth a *man wittingly* killed and *ate* a *son*, was transformed into *pig meat*, and distributed to mankind. He *did not intend* to make any gifts nor were any intended for him. In the coconut myth a *woman unwittingly* killed but *did not eat* a *spouse*, was transformed into *coconut*, distributed to mankind. She *intended* to make a gift and a return gift was intended for her.

We may isolate three distinctive features. On the ecological level we find an opposition between two types of symbiosis. The Totoima myth shows a predatory cycle: pig eats taro; man eats pig; thus strengthened, man causes more taro to grow. The coconut/betelnut myth shows the association of two plants always growing together, such that the presence of the one may be thought to stimulate the growth of the other. On the social level we find an opposition between the kin relationships holding between the principal participants. They may be represented as follows:

In the Totoima myth, the critical transaction was between the senior and junior generation, while in the coconut/betelnut myth it was between the male and female characters. Psychologically, the opposition was that in the Totoima myth the protagonists were motivated to kill and eat each other, while in the coconut/betelnut myth they were motivated by sexual love.

Both myths are concerned with exchange, viewed ecologically, socially and psychologically, but in the first myth exchange is diachronic, whereas in the second it is contemporaneous. Where exchange is diachronic, B cannot reach the fullness of prosperity without the death of A, a process symbolised ecologically by predation, on the social level by intergenerational competition and on the psychological level by the desire to kill the father. Where exchange is contemporaneous, B cannot reach the fullness of prosperity without the simultaneous prosperity of A, a process symbolised ecologically by plant associations, socially by the marriage relationship and psychologically by conjugal love.

Diachronic exchange is, on the ecological level, a familiar and empirically verifiable fact. On the social level, however, the competitive and negative aspect

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of the father-son relationship is suppressed by consciousness, among the Orokaiva as among ourselves, and is revealed only in dreams, myths and other messages from the unconscious. In contrast, synchronic exchange – as the love between spouses, the amity between affines – is overtly recognised and empirically verifiable on the social level. It is, however, purely imaginary on the ecological level, as plant associations, such as that of coconut and betelnut, *oga* and *cumba*, *puga* and *hoe*, yam and *hamesi*, are not necessarily found in nature but are generally brought about by man for magico-religious reasons. When man establishes these plant associations he is recreating on the ecological level the symbolic equivalents of the social relations on which his prosperity depends.

These social relations are, as we have seen, of two types. In sexual love we find the mystical and irrevocable unity of opposites where objects of mediation become, in the last analysis, irrelevant. But in other social exchanges we find a necessity for objects of mediation establishing a link between self and other. This relationship is exemplified in its purest form in model 29, the model of sister exchange, where a relationship between *dambo* is mediated by an exchange of sisters. But in models 28 and 30 we find important variants, where betelnut and coconut are substituted to mediate the exchange. Precisely because neither of these two products is of any great economic value, they are appropriate for serving as tokens of exchange, a signal of the potential existence of exchange, between any partners, though in the myth and in mortuary ritual this exchange takes place between the prototype-partners of the Orokaiva, the *dambo*. The rather bold suggestion I made at the end of the previous section therefore corresponds to a hidden reality, namely that gifts of coconut and betelnut are symbolic of sexual exchange. It is significant, in this regard, that sisters-in-law address each other by the term *bi*, which means penis.

REFERENCES

1 I am referring here to Radcliffe-Brown's discussion on Yin and Yang as an example of complementary opposition (1951) and to Lévi-Strauss' adoption of this example to present his theory concerning the real nature of totemism (Lévi-Strauss 1962T). Coconut and betelnut, in the myth discussed in the present chapter, may be seen as a further example of the same principle.

2 This type of logic, first developed by Gentzen in 1934, was adopted afterwards by Popper and has been shown to be the basis of primitive systems of thought (Jarvie 1964). It requires no investigation into the truth value of axioms. Gentzen called it 'natural deduction'.

3 Though Malinowski held (1926M) that 'myth serves principally to establish a sociological charter, or a retrospective moral pattern of behaviour, or the primeval supreme miracle of magic', he knew very well that the charter is occasionally 'flagrantly violated' by the actual norms of a society. He also recognised that where we find a fully institutionalised violation of a mythical charter, we should seek an explanation for the discrepancy. Malinowski even took initial steps towards such explanation: 'This violation always takes place when the local claims of an autochthonous clan . . . are overriden by an immigrant clan. Then a conflict of principles is created . . . ' (1926M; reprinted 1954: 117)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 A very similar point was made by Lévi-Strauss in 'Legeste d'Asdiwal'. After pointing out that the institutions described in myths can be the very opposite of real institutions, he argues that any such discrepancy 'implies an admission that the social facts are marred by an insurmountable contradiction'. By investigating such contradictions, we may find means of 'reaching unconscious categories' (1961: 1110–1). This is precisely the strategy I have adopted in the present chapter.

539 793 4 I have followed a method demonstrated by Lévi-Strauss in *Le cru et le cuit* (1964). I have shown that the two myths discussed in this section are isomorphous; I have isolated their distinctive features and posited that they are interrelated. I found that in each myth three levels (botanical, social, physiological) were superimposed and that each level transmitted the same message. Between the two myths, there was an inversion of the codes and the message (1964: 205, 250–2).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants of plants, but that the ancestor was a man bearing the name of that plant. Clan and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*, In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of feasts, explaining why there is a rule that feasts may be held only when it is ritually established that food will be plentiful.

Discussion of this myth made it clear that the feast is regarded as a purely temporary interruption of the state of strife, but that it can restore a temporary harmony if ritual is properly observed. The feast-givers must have an abundance of food; they must give everything they have to their guests. Their ancestors will then bless them; their enemies will remove evil spells from their lands, and their gardens will greatly prosper afterwards.

At a feast the Orokaiva became ritually and spiritually identified with their primal ancestors and re-enact the peace and harmony that existed in original time before strife began. It was, however, the traditional belief that such a state could not be expected to last; that after the feast strife would re-assert itself. The myth instructed man to hold feasts 'from time to time', the interval between one feast and another being characterised by food shortage and warfare. Peace was not considered to be a possible permanent state, though my informants remarked that since the coming of the white man it had become so.

We find a similar cyclical pattern in the marriage practices of social groups. Let us take as the commencement of the cycle a crisis such as a military defeat or serious quarrel which leads a fragment of a social group to separate, move some distance away and establish a new settlement. Such a group will usually begin to intermarry with new groups using devices such as abduction and elopement. Gradually, they will set up a number of reciprocal arrangements with groups in the vicinity. When relations with reciprocating groups become very close, the time will come, usually after two or three generations, when marriages between these groups become impossible under the rules. At this point the former affines have all been turned into notional consanguines. Unless the two sides quarrel (which is not infrequent), the stage is now set for clan fusion.

It could be demonstrated, from a detailed analysis of Sivepe marriages, that the composition of both the Seho and the Jegase local clan groups may be explained by this process. Three of the four 'lineages' of which the Jegase group is composed have migrated to Sivepe since the beginning of the century. One of the waves of migrants already bore the clan name Jegase when they lived at Kiorota, their village of origin. The other two groups assumed it quite recently, after more than two generations of residence and intermarriage. Seho was welded together a good deal earlier than Jegase, so that the lineages are no longer commonly distinguished by name, and the ideology of common agnatic origin is far more firmly established. Seho must, however, have had four lineages at one time and I was able to establish the village of origin of three of them, as well as numerous intermarriages with the Seho of Sivepe after arrival. Intermarriage seems to have become more difficult between these Seho lineages about fifty years ago, and fusion must have been complete by 1925. A marriage between two Seho lineages arranged around 1935 was the last, and caused much annoyance though there was no common *hae*.

I am not suggesting that the process described here explains all Orokaiva clan fusions, but only that the marriage system does in fact turn groups of affines into consanguines and that these consanguines if they live close together tend to assume a common clan name. The importance of this process for the study of kinship structure lies in the fact that it is explicable neither by rules of restricted

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and explaining the Orokaiva exchange system. In Sivepe, the principal village of my 1966–67 research, I found two very good Orokaiva informants willing to record on tape their reply to the question: 'what is exchange?'. The recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to forward, to throw away' and in sexual intercourse, to ejaculate. In general, therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he expects none. This aspect of *hande ari* is emphasised in ideological discourse, as an example of which I was quoted a simple story which, so I was told, Orokaiva parents teach their children. Some variants of this story are of great anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

will make him a present; when the host village makes a return visit to the village of their previous guests, individual partnerships tend to be maintained, so that each man can make a return gift to his previous host.)

Finally a girl whose father was absent from the village invited the two strangers into her house. The father, upon his return home, accepted the hero as guest and partner and performed all the proper duties of a host tending their hair, dressing them in new raiment, feeding them, presenting them with gifts. When the people of the host village went down to the coast to return the visit, they were received most stingily, except for the man who had hosted the hero. For the hero turned out to be a man of fabulous riches with which he loaded the only guest who had given evidence of a spirit of generosity.

The hero's name, Javaite Poromo, is said to mean 'giving food to friends', a gloss I was unable to check as the words are not otherwise part of current Orokaiva vocabulary. 'Javaite' is called out at feasts in the sense of 'come hither'. The conclusion to this tale is a long recitation by Javaite Poromo on the rules of gift exchange; he is thus presented as the hero who established this institution among Orokaiva. The rules, as stated in the text, did no more than restate a number of rules I had already elicited in previous interviews and to which reference will be made below. The essential point, for the present, is that the *hande embo* is he who gives without thought of return, in other words, for whom giving is a categorical imperative. It is reinforced by sanctions: 'If you don't give, you are bad, people will pull you down'.

Unlike Javaite Poromo, most men have limited resources. Nonetheless, they follow the same rules of gift exchange as he whose resources are infinite. He is the model all must follow. Now, from the tale quoted above, it is clear that the hero accepts the notion of debt: the hospitality he had received created a debt he was obliged to repay. The Orokaiva term for this concept is *tihanga*. The repayment of the debt then becomes a 'return' for the gift. The Orokaiva term for 'exchange' (*mine* or *minemine*) is simultaneously the term used to describe the 'return'. No terminological distinction is made between an exchange of gifts, or services, or other amicable prestations on the one hand and an exchange of injuries (murders, sorcery, thefts, etc.) on the other. The term for retribution as well as reward is *minemine*. In speeches by Orokaiva ideologists who wish to criticise the old order (where vendettas were just as prevalent as gift exchange) the term *minemine* is regularly used in the merely negative sense of the old days where a clan killing an enemy was thought to 'owe' a death to that enemy's clan and the enemy had a recognised right to make such retribution.

The Javaite Poromo rules about the recognition and estimation of *tihanga* are complex. Balance is a basic factor, once it is recognised that *tihanga* has been incurred. When a return gift re-establishes balance, it is called *inono* (enough). Just what quantity counts as *inono* depends on context. All else being equal, gifts should be exactly balanced (*perukari*). Thus, at a feast taro bundles are, at some stage, tied to a pole. The height of the food pile is marked on the pole. So is the height of food pile that is received in return. Balance then means that the height of the two piles should be the same. The term *isapa* (little, too little) is used to signify that in the view of the recipient, the

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

III

The above outline of the glories of *hande* and the pains of *tihanga* present a model remarkably like Sahlins's 'balanced exchange', but drawn from what one might call Orokaiva ethnosociology. This Orokaiva model is, however, no more than a first lesson in reciprocity. My informants, immediately after telling and explaining the Javaite Poromo tale, proceeded to a second lesson on what they considered a slightly more advanced level. This was prefaced by: 'I should like to tell you why we tell the story of Javaite Poromo'. It soon turned into the recounting of another myth, complete with commentaries and explanations.

A handsome young man came to a village, married a girl but instead of taking her to a village, he took her deeper and deeper into the bush. It turned out that he was, in fact, a pig who had merely disguised himself as a man for the visit to the village. They lived in the bush where she had a son from him who was a white cockatoo (*agena*). As the pig, together with his friends, now wished to kill the woman, she took refuge, with her son, on a *peromba* tree. When the pigs proceeded to try and uproot the *peromba* tree the mother sent her son to her native village with a message. When he returned, the pigs had almost uprooted the tree, but they fled safely, the mother in the son's beak. As they arrived, the mother warned her kinsmen to expect the pig shortly.

When the pig arrives, he is fully and impressively decorated as before—the tale mentions specifically his fine tapa cloth, his *ganda*, his pineapple club, his headdress of red cockatoo feathers, his shield. The kinsmen convey him to a platform with ceremonial greetings appropriate to a visiting affine, fall upon him with spears, cut him into small pieces and eat him.

The commentary given by informants briefly shows the link between this tale and the question of reciprocity. It was by the killing of the pig, informants said, that the present relationship between pig and man was at last established—they kill us; we kill them; they are given to the land for us to eat. This is in contrast with relations between men, based on mutual visits and friendship. This contrast between pig/man and man/man relationships is not in the body of the text, but its relevance was pointed out to me by the two informants.

It will be fully clear to any initiated Orokaiva why this tale explains the principle of reciprocity. It is also probably quite clear to any trained anthropologist. I think, however, that I am obliged to offer a translation into western jargon. The tale is not for children but, it is implied, for initiated men, i.e. those who have a knowledge of spirits. Uninitiated people think that the strange decorated figures one sees at certain ceremonials are spirits, because they have the plumes of birds, the paint of the dead and the bone and shell ornaments of the ancestors. This is not so; these figures are all men disguised as spirits and ancestors. These disguises ought to be so perfect that the person beneath them is not recognisable. In any case, if anyone recognises them, it would be very rude to make this known. They must be respected in every way as though they were the ancestors they represent. The initiated, however, know that the living man and the ancestor are both present in the decorated man.

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Now who were these ancestors? They were all human but at the same time they might inhabit the body of an animal or borrow some of an animal's bodily characteristics. Such a tendency would go with a very particular affinity with the animal in question, a partaking in its powers. Many stories are therefore told of ancestors with such affinities. As for pig stories, the most famous is that of Totoima, a man who on occasion wore pigs' tusks and then was murderous in the extreme. When he was finally killed, his body was cut into many pieces and the men who ate from it multiplied miraculously and became the ancestors of great tribes. Another story, of which only a very incomplete version survives today,[6] concerns a 'pig-man' who had assumed the body of a pig but was really a man. Men built a house for him and gave him taro for which he gave them real pigs in exchange. Men broke off this exchange, however, and since then men and pigs have not made exchanges. Nonetheless, he is remembered as a great man as he set up the practice of exchanging and was the first to provide men with pigmeat, thus making them strong.

In this time of the ancestors, men and animals exchanged and communicated with each other without restriction. Yet at a certain moment, a strict division began to be made between those with whom one can make exchanges and those who must be regarded as outside exchange. Unless there are such clear limits to exchange, men would never be safe. This is what we learn from the tale quoted above, the subject of which is, as one might say, *The Pig with the Ganda*. Now, as the story is told, this was not a man in the guise of a pig, but it was really a pig. When he came to a village, he changed the various parts of his body into the ornaments that men use even today for ceremonial dress. His bristles changed into the feathers of the red cockatoo, his jaws and teeth changed into the ornament called *ganda*, normally made by men from pigs' tusks and dogs' teeth and held between the teeth when men dance. It was in that guise he could seduce women (see fig. 1).

He changed himself, so to speak, from a real pig into a symbolic pig and was thus indistinguishable from a man who would likewise change himself into a symbolic pig.

It is the case that whenever great exchanges are made between men, they all wear the decorations and disguises given to them by their ancestors. This is necessary because today, men are always at war and harmony between men existed only in the days of the ancestors. During feasts men therefore recreate the world of the ancestors which was the only world of peace. But the pig with the *ganda* must be excluded from such feasts. There must be separation and thus confinement of the world of exchange.

I have given this reconstruction informally, instead of deriving it systematically from the many texts on which it is based. It exemplifies the type of religious discourse which enters into any serious explanations offered by Orokaiva. What it explains, in effect, is 'negative reciprocity', the state of permanent war that exists outside the confined universe of ceremonial exchange. This certainly includes the war between man and nature, but most probably it includes more than that. It is worth remembering that Orokaiva describe the mountain tribes with whom they refuse to make exchanges as

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

301

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites who tried to make ethnographic maps of the Northern District tried to find the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put on the map, as the *pereho* category included quite different groups according to who was speaking. My concern was here to give the conceptual boundaries of the exchange universe in Orokaiva terms, but there are real geographical boundaries, different for each village, which correspond to such concepts. Williams (1930) already spoke of two systems of Orokaiva morality, one within the 'sympathy group' which is his term for the exchange universe, and another where there is, in principle, a permanent state of total war even though there will always be a few islands where trading partnerships are found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and negative reciprocity, what about Sahlins's most fruitful and original category, generalised exchange? It is possible to find a category of relations among Orokaiva where it is denied that any *tihanga* is ever recognised. There are plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I doubt however whether that particular category corresponds to 'generalised reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

NOTES

The data presented here were gathered in the Northern Province of Papua New Guinea in summer 1970 with the help of a research grant from the Canada Council. The paper was first presented at a seminar at the Department of Anthropology, University of Chicago. I thank faculty and students at that seminar for their comments, which have led to clarifications of the text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

[3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he should have been aware that I presented a paper about these rules (Schwimmer 1970). The present article incorporates the main data of that paper, as well as of a later paper presented in Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the Musée des Arts Populaires.

[4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

[6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for 1923, quoted in Schwimmer 1973: 140.

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21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

121 with limited horizons, so that they may be translated into realistic programmes given available resources. Applied anthropologists should be able to tell when administrators are pressing too hard, or, conversely, not giving enough lead; and what stresses and strains are likely to result when this is the case. To a certain extent this can be done quite rapidly by systematizing the enquiry and concentrating on critical points such as violence or non-violence in family relations, adequacy of resources, and a genealogical approach to land tenure and inheritance. But applied anthropology must attempt to go further than pointing to critical phases of an already-evolving policy. It should be able to evolve a theory which would enable the administrator to avoid or at least adequately reduce crises before they occur; in other words to predict. The existence of numerous variables may be a valid excuse for not achieving perfect accuracy; but the time has come to write our theory in terms of social change, and in such a way that it can be tested in administrative practice, which is anthropological experiment.

NOTE

[773] The following legend, recorded in a Patrol Report by Mr. Atkinson in 1948, is not without interest:

Long ago a man, a woman and a dog went up into the area which was then flat land with no hills. The man wished to have intercourse with the woman and she consented, thereby doing wrong. They did not return to the village but lived in the area. The people did not see them again but periodically used to ask how they were by shouting into the bush. First they learnt the dog had died, then the man (the man's spirit told them the last fact). The hills appeared and it was always cold and wet on top. It is not good for people to go into the area.

CYRIL S. BELSHAW.

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823
● 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the Ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain.
[775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to that contention. As against this there is the testimony of missionaries (Tomlin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington
[776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

[774] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

823 collection of vernacular texts written by a young man from Kierota
•773 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Mohorita and belonging to the Sangara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kanekari, "The Separation of Sumbiripa." This Sangara version is notably the richest in mythological content.

[174] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepa version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

621 social distance also. Relations between Inonda and Ureo or Hohota,
628 from which Inonda recruited wives, were distinctly less friendly than those prevailing between, say, Sivepe, Garombi and Binduta. (See my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
167 the links with Sangara came as a result of the eruption of Mt. Lamington. Admittedly, this Sangara link was of a modern type, the central figure being a mission teacher. The residential pattern however is ancient: due to some vicissitude, a man settled with his affines; this led to further marriages between his village of origin and his village of residence. He was given enough land to cultivate for subsistence. In this case, the Sangara immigrant still quoted his own clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepa, even only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
[423] orphans was a commonplace event among the Orokaiva, as were also migrations to escape from enemies. Sometimes the fugitives or the orphans returned eventually to their village of origin, looking for a friendly relative who was willing to meet their claims to the land of their fathers. In going back a few generations into the past, one never knows for certain who is a new immigrant and who is a claimant for ancient rights.

The tendency is always to obliterate the traces of alien origin, to drop alien phonetical habits and alien use of grammar and
[723] vocabulary as soon as possible. On the other hand, myths of the place of origin will still be transmitted to the children, so that anyone collecting tales among the Orokaiva will be presented with a variety of versions of different local origin. Many of the best ones I collected were of Kiorota origin because the father of old man who told the stories came from that district about 45 years ago. Furthermore, the links with the place of origin are rarely broken off, not even in the case of women or babies who were abducted as war captives. The immigrant wishes to keep alive his land rights in his place of origin. The people of his native village in return wish to exploit any advantages there may be in the connection between their absent clansman and his hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and hunting rights, and as migration used to be very common before the pax Australiana, such multiple loyalites are extremely common. I am not quite sure how these loyalties fared in time of war, but I understand that if two men who were linked by such relationships found themselves on opposite sides in a war, they were unlikely to fight each other though stories are told of unfortunate accidents. I have

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sumbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

731 10. Compare this with the school at Sasembata, which teaches to grade six.

871 11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.

731 184 182 12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).

823 773 13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).

731 [829] [101] 14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.

[184] [823] 15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.

731 184 829 16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

[619] With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

731 423 425 17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

602 The Orokaiva say that the *dambo* relation, although similar in many respects, is colder, more formal than the *simbo* relation. If a man dies in war, his *simbo* will die with him. The same intensity of feeling was not expressed about agnates. The feeling is the same where female *simbo* are concerned, except that "women cannot always do what men do." *Simbo* relations were especially important during the period of courting, war-like raids, and bravery in collecting war trophies.

602 572 The *simbo* relation resembles in many ways the kind of friendship described by Paine (this volume, pp. 117–37). There is a sense of worth having a *simbo* as a companion. The relationship is oriented towards what is regarded as the great things in life, principally love and war. It does not tolerate bargaining of any kind. It is not competitive exchange because *simbo* are not supposed to compete or exchange; it is not strictly cooperative either, as it does not bear the burdens of everyday obligations characteristic of the domestic unit. The taboos effectively separate *simbo* from each other on this everyday plane. In the mythical texts, we find an aspect of *simbo* [773] relations not stressed in ideology: in them, the *simbo* are forever playing nasty tricks on each other, depriving each other of benefits that are requested, and stealing each other's girls. But in such tales, virtue tends to win in the end. They form a charter, in Malinowski's sense, for the rules about *simbo* behaviour.

In the *philia* universe, *simbo* occupy a special position; namely a rejection or negation of both the cooperative and the competitive modes. The cooperative mode, taken by itself, leads to entropy; the competitive mode, taken by itself, leads to perpetual conflict. The *simbo* relation is a synthesis of the two, as is reasonable enough if one remembers it is symbolically equivalent to marriage, as analysed by Aristotle.

572 608 [551] Fictive *simbo* bonds are sometimes created between non-kin who are engaged in an appropriate common enterprise and who desire to express their mutual warmth of feeling. Such a relationship gives friends a kind of explicit claim on each other's property and services. Because of the name taboo which applies loosely in these non-kin bonds, *simbo* tend to address each other by special names known as *simbo* names.

For instance, one morning I was working on a task with a Papuan friend, when a visitor entered with a gift of eating bananas. My friend broke off a twin banana and shared it with me. "Now we are *be pije*" (banana men), he said, explaining that this was one of the *simbo* names most frequently used. If the two friends happen to find a twin areca nut, they become *be sa* (areca men); similarly one finds *be hinga* (pepper men) *be junga* (fig men) and so on. The relationship is extended to the wives of the fictive *simbo*, who become known as *ka pije*, *ka sa*, and so on. Thus, my wife became my friend's "banana girl." While such a relationship was not explicitly described as hereditary, it is easy to see how it can be transmitted from generation to generation.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gaiha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

241 Time is therefore a highly inappropriate measure of useful activity
461 in Orokaiva gardens. Whether *simbari* is effective or ineffective does not depend just on the time spent. It depends on the warding off of sorcery and hence on ensuring one has no dangerous enemies. It depends on harmony in the family. It depends on avoiding straying pigs, not just by building fences but by being the kind of person into whose garden one does not want one's pigs to stray. The anthropological observer notices a certain selectiveness in Orokaiva pigs . . .

554 A great man, or a manager, is not always a gardener. He may be
461 a sorcerer. But if he is a gardener he is a great gardener. He accomplishes his garden as a craftsman accomplishes a model, an ΕΙΔΟΣ, or as Orokaiva say, an *ove*. His image of the world is not
[773] dark like that of Hesiod or of Adam's curse. An Orokaiva inform-
[177] ant once recorded for me on tape his version of the relevant portion of Genesis:

[539] "You will bear children, lift string bags, draw water; you will do all those things and be loaded down with sorrow, so He said; and then He spoke to her husband Adam thus: You will take the axe, cut the second growth, chop down the trees, lop off the branches. In the hot sun, in sorrow, with pain all over your body, you will labour hard." He said.

He thereupon determined that Eve and Adam spoke thus: "This is the way we shall all wish to act on earth: our bodies will be painful from work; and the women as well as the men will be in pain and sorrow from hard work. And as our food will be prepared and ready we stay to eat. All right we did not know that God would not let us have what we had taken and eaten."

Therefore God said to them: "Long will be the day of sorrow when you have sorrow, but when you have happy days you will be happy." So he said. Therefore we shall live in this way from now onwards . . ."

This interpretation is not, I believe, merely garbled. It is a clear message that the Orokaiva just will not understand why, after working hard in the sun, they should afterwards eat their bread or taro in sorrow. To them, this is not a mere question of how they would feel, but a moral matter. Whoever wrote the original of this text was obviously lacking in respect for bread or targo.

Daniel de Coppet (1976) rightly suggested gardening in Melanesia was a religious act, like a sacrament, as is also eating the produce. Whatever pain there may be is sacramentally transformed. Man feels his unity with the Taro goddess and also with the garden and the crop.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.
14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.
15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A re-reanalysis of that work, with full use of the myths, is overdue.
16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).
17. A discussion of work specialization among Orokaiva (of which there is but little) will be found in Schwimmer (1967). An interesting type of specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.
18. For a full discussion of the concepts involved see Schwimmer (1979a).
19. The text: "*Umo meni ingesoa, eti atimbasoa, I umbasoa, umo timbasoa; donda deire tapa amo aisi oa eto tunga osaga umbasoa.' Ainge ena. Ainge ivu ta ena: 'Adam, umo ainge hogoro umbasoa, andage aisi oa eto I gaipi oa, pure firembasi oa; iji vevere tunga osago hamo memega re tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Eave te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earora. Eto donda matu nunuga ena avo indie truetera avo. Aravorate, ungo kiaekiae eto God na taekena avo umbuto India. Aravo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ova, ainge tunga javatoho iji amo tunga javatoho aisi ova.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora.*" Robert, Sivepe, 1966.
20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puvuna.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.
21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
woman) is a cleared patch of ground on which nothing grows; nor is the woman
[578] in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of
887 the piece of land where the spirit of the dead person has taken up special
241 residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *here* are taken from these crops.
241 After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called
774 *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

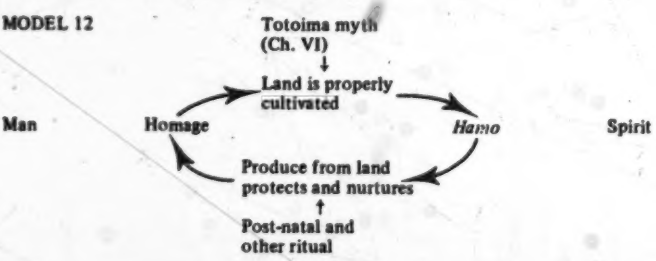
Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

774 was thought to inhere in his old garden plot and in the products growing there,
775 or more specifically perhaps in the water flowing through the garden, for it is in
[823] the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

769 The ritual formulae spoken by the parents in the garden and quoted above
775 both clearly have the form of a bargain, by which the spirit of the deceased is
774 asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be
241 expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those
[596] spirits. The senior member of an extended family, the 'father of the ground' (*enda mama*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gaga*. It will be noticed that the position of the taro on the *gaga* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

27: Schwimmer E-5 (1966-1970) 1979 QJ23 Orokaiva QJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

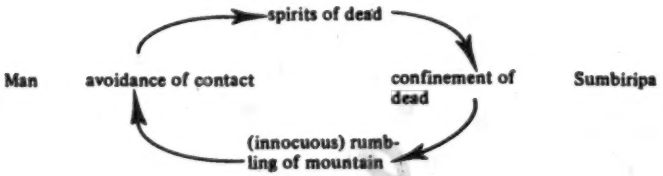
Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

784 social exchange relationship in which the Orokaiva thought they had defaulted.
823 In the case of Sumbiripa, this relationship was a rather special one as Sumbiripa's
795 gift is the safe confinement of the dead, whereas man's gift is avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa, whereas Sumbiripa mediates by emitting his usually innocuous rumbling. Before 1951, Sumbiripa had never erupted in living memory. We may express this in the following diagram:

MODEL 9



One theory of the eruption was that man had broken the exchange relationship by hunting on the mountain with guns. This disturbance angered Sumbiripa so that instead of innocuous rumbling he emitted the full blast of his immense and disastrous fury. The effect of breaking the exchange relationship with the Church was thought to be disastrous in precisely the same way. Just as the rumbling of the mountain suddenly became lethal instead of benevolent, so the 'communion' offered by the Church suddenly turned negative, dispensing retributive justice instead of mercy. Similarly, default in a social exchange relationship between human beings may lead the wronged person to give Alter misfortunes and diseases through sorcery, instead of the benefits he would otherwise bestow. If a relationship is broken, the wronged partner may respond by invoking negative mediating elements to obtain redress.

823 This dangerous trend may be reversed by expressing repentance, and by
797 receiving forgiveness (see models 1 and 3).[A] Subsequently, the offender will be more careful, if he is prudent, to stop the relationship from breaking down. Thus, after the eruption, the Orokaiva became more careful to carry out development activity (model 7)[B] and seek baptism (model 8).[C] The fact that the Anglican Mission denied that God had been angry would in no way diminish their solicitude, as such denials are always issued by offended exchange partners as part of the ritual of showing their forgiveness. Detailed empirical evidence given elsewhere (Schwimmer 1969) in fact shows that the eruption speeded up the development of the *iji eha* ideology among the Orokaiva. It would be wrong, however, to suppose that the supernatural fear propelling the Orokaiva towards development and baptism was due to a cruel deception by the mission or to irrational self-deception on the part of the people. It may equally well be regarded as a case of rational choice. It is not at all irrelevant to emphasise that development and baptism, in fact the whole *iji eha* ideology, was a sensible direction for the Orokaiva to take. The explanation of the disaster which they adopted was not a blind reaction to external vicissitude but rather the strategic reinforcement of a mythical charter for institutions mediating a valuable

A [See Category 829, pp. 58-9--Analyst]
B [See Category 657, p.75--Analyst]
C [See Category 797, p. 77--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 ground, and with harvesting, which he may not do. Upon marriage, the new wife
241 is usually expected to garden on her husband's land. There is a fiction that, at the time of marriage, she 'does not know' the work she is expected to do on the
[581] land of her new affines. Her mother-in-law has to instruct her and it is only after
[585] such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

423 As against these male and female obligations, we may note some clearcut
593 rights: the man's right to his wife's labour and the wife's equally important right
241 of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may choose to make outside the household, providing that she manages the food
[578] supply so as to avoid shortages. A domestic dispute I observed in Sivepe
[586] (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

[431] This brief discussion of social practices has already indicated that a garden
[462] plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the
423 light of rituals, myths and indigenous explanations. It will be best to begin with
241 some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom
[562] land may be assigned may be either male or female. Among the Orokaiva it is
[462] common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the
[789] crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and
●[775] the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 593 [578] one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 423 887 241 A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 768 241 Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *here* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 851 774 Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named; but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

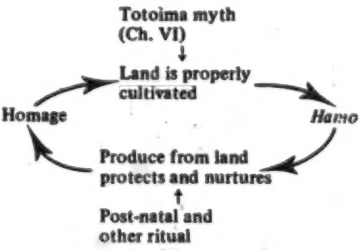
Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

was thought to inhere in his old garden plot and in the products growing there, or more specifically perhaps in the water flowing through the garden, for it is in the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

The ritual formulae spoken by the parents in the garden and quoted above both clearly have the form of a bargain, by which the spirit of the deceased is asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those spirits. The senior member of an extended family, the 'father of the ground' (*enda mama*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Why does man have this duty? According to the data I have presented, the duty arises out of a promise made at the time of birth. The land is identified with the ancestor who gave the infant its body. The cultivator works not only to 'survive' but also to repay to that ancestor the debt he has incurred by being given a body.

These beliefs are relevant not only to land as a mediating element between living and dead, but also between man and man. The religious system is unconcerned with the consanguineous relationship between the living servitor and the spirit of the dead. It is the service alone that counts, while the capacity to provide the service rests on no more than the authorised occupancy of land. The implication for land transactions between men is that such transactions can never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory brother-in-law, simultaneously passed over the duty to care for the spirit of his dead brother, whose spirit resided on that plot. This is especially interesting as that affine (and his son Jarata (2), if he had lived) belonged to a clan different from the spirit's. Thus, on a religious level, there is no recognition of a clan's 'right' to certain land, but only of a sequence of cumulative co-operative acts between man and spirit, such that each move by one party calls forth an appropriate move in response. We shall now turn to the social aspect of these transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as economic transactions, we may meet with the initial objection that land transfers occur in response to economic needs and are adequately explained without introducing social considerations. But among the Orokaiva, there are many land transfers for which an economic explanation would in practice be hard to find. Certainly there are cases where land is transferred to a household notably short of land, but I know of more cases where the purpose of transfer was to have the company of a good friend on a neighbouring plot and other cases where the only discernible purpose was to make a gift and strengthen a social bond. Crocombe and Rimoldi have recorded a large number of land transfers in Inonda and Sivepe, a large proportion of which were outside the extended family and even outside the lineage. By no means all of these were redistributions to help the deprived. Many were mainly for the sake of strengthening sociability. It is therefore reasonable to inquire into the significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those occurring within corporate groups, and those occurring outside them. In a strict unilineal system, it would be possible to draw a land map showing areas owned by a lineage, and if the system were segmentary, one might speak of a clan domain, a tribal domain and so forth. Such boundaries would theoretically remain unchanged in perpetuity as each generation inherited holdings in the patriline or matriline. No New Guinea system of which we have a recent professional description approximates even remotely to such a model, at least in practice, as we find that many land holdings in so-called patrilineal groups pass into the hands of uterine kin and affines. Among the Orokaiva the departures

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

596 In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married
428 male is fully competent to carry out ritual in the garden he is cultivating. The
[775] Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

596 Informants were all agreed that at any time either the *enda mama* or the
578 junior member of a land-holding corporation may opt out of the relationship:
593 such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

596 When such separations occur within a three-generation extended family, they
613 are regarded by the community as (minor) misfortunes. On the other hand, they
423 are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a
571 lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

best definition of 'residual rights' would be 'benefits that are claimed when the social exchange relationship has broken down'. They are a sanction applied to punish the loosening of quasi-filial allegiance. 423 425 571

The case of Inonda is atypical as the entire village domain is held under an arrangement derived from the ideology of exchange. A more frequent pattern is for an individual to own some blocks of land in virtue of more or less permanent gifts. In neither case does this land mediate sacred and indissoluble bonds. In the case of patrilineal inheritance, the individual violates no supernaturally sanctioned rule if he cuts himself loose from his *enda mama* (and often keeps his land). In the case of land gifts, he may also cut himself loose if bonds of affection and expediency weigh less with him than the cost of satisfying his donor. If he should break with his donor, there is likely to be theft, intrigue, sorcery and perhaps violence and it is quite unpredictable who will eventually occupy the land.

If a man has only gift land at his disposal, he is in an insecure position in his relations with his exchange partners. This seems to be the case in Inonda. If a man has only patrimony land, we may assume that he has no close bonds outside his extended family and lineage, as such close bonds would probably have led to offers of land. Such a person has too narrow a base of social support in the community to count for much, and to counter effectively challenges to his position and property that will be made from time to time.

7. *Conclusion*

It remains to be shown that the facts and analysis of land transactions illustrate the general principles set out at the beginning of this chapter. I have dealt with a series of social relationships in which one partner has a strong need to identify with the other, to maintain a stable and permanent bond and to obtain what the other has to give. This need was sometimes social, sometimes economic, sometimes emotional, sometimes religious. All these bonds depended heavily on land for their efficacy. 423 571

I have shown that a donor of land does not necessarily separate himself irrevocably from the land as such, but from the usehold of it and thus from the productivity of the land for a certain period. There are no return payments which can ordinarily compensate for the gift, the main purpose of which is to mediate a certain social relationship. The donor can never quite know in advance whether the gift will be efficacious, as the receiver of the land may not, in the end, make the social prestations for which the donor hopes. The receiver is usually someone from whom substantial social support, in one form or another, can be expected. The relationships arising in land transactions are therefore precisely those which my model was designed to interpret. 423 425 571

In the introduction to this chapter, I argued that a gift could be regarded as a 'mediating element', for the purpose of my analysis, only if there is identification between the donor and the mediating element. In the case of land, we have seen that the owner strongly identifies himself with the lineage spirits believed to be resident on the land. The land is a part of him, just as his ancestors are a part of him. By transferring the land to another person he causes that other person in turn to identify himself with the land. He is thus magically 423 425 775

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, the commitment of productive effort outside the range of the security circle all tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.
2. For the location of Garombi, see Fig. 10.
3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.
4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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she takes them home. The brother is clearly identified with taro growing in the field.)

7. The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers. [262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were [715] discussing the jungle. It was above all a place where the ghosts (*sovai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sovai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[715] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as [784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

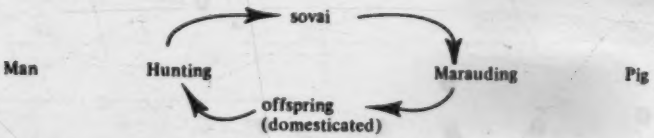
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 distinguishes wild pigs from domestic ones. Once the spirits have been effectively
825 expelled, the piglet *thereby* becomes domesticated. This means that it obeys the
calls of its mother. It learns to forage in disused gardens but keeps away from
[789] growing taro. The piglet will not stray too far into the bush but comes home
[775] every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed.
[775] In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



431 Live domesticated pigs are not used a great deal for the mediation of social
231 exchange. Certainly the rearing of pigs enters widely into the exchange of
prestations between the sexes, for it is a task women customarily perform for
[462] close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among
437 the Siane, but here the purpose was somewhat different. The Siane have feasts
231 at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale
[171] would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

20: Schwimmer E-S
(1966-1967) 1969
OJ23 Orokaiva OJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [715] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the Ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain. [775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to that contention. As against this there is the testimony of missionaries (Tomlin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington [776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

[774] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

731 near the boundary of Sivepa gardens. A crippled woman who could not run away described to me how, during the period of darkness, [775] people who had come out of the mountain (i.e., dead people) tried to kill her but did not succeed. On Tuesday, Mr. Kaad went to survey this area, prior to setting up camp at Waseta. Apart from these old people and the crippled woman, he also found that some local people of the Sasembata area, who had fled on the Sunday, had already returned and were milling round their old homes. He told them all to go to the camp at Wairopa.

The village constable's story also contained a reference to this meeting with Mr. Kaad, but introduced some of those slight twists or reinterpretation of the facts which are always characteristic of Orokaiva information. According to this story, the village constable met Mr. Kaad at Avala and said to him: "I want my people to go and see their dogs, pigs and chickens." Mr. Kaad then permitted three or four men from each village to go and look and come back again. When the people returned after their period in camp, the animals were still there. The evidence shows plainly that Mr. Kaad had to show a certain firmness to induce all these people to stay away from their villages. Even two days after the eruption they appear to have felt an inclination to return.

One interesting detail of the Sivepa experience was that the old people did not leave their village land at all on the day of the eruption. The Sangara people, who escaped from devastated villages, invariably told me that none of the older people were saved. They gave as the reason that these old people were unable to run fast enough. After obtaining this Sivepa evidence, I reinterviewed one or two of the Sangara people and it would seem that the old felt no real desire to escape from the mountain.

Kaad's arrival seems to have induced the stragglers to move on to Waseta and from there to Wairopa. The government's air-dropped supply of emergency rations began to be delivered to Wairopa. The centre of this camp was the government rest house, while the refugees began to build shanties for themselves. I collected few data about the Wairopa camp because its duration was only a few days. During this time, government and mission personnel began to arrive from Port Moresby via Kokoda, while Mr. Searle continued to do the radio communication work. The camp had to be abandoned a fortnight later because of dangerous flooding of the Kumusi River on whose banks it was lodged. Taylor describes the phenomenon as follows:

> Mudflows, which were a characteristic aftermath of the explosive activity (of the volcano), were a natural consequence of increased run-off from the denuded slopes and of the great abundance of loose fragmental material. The run-off became great rumbling torrents of viscous mud

361 In the period from January, 1951-1967, the location of the villages now known as Sivepe and Inonda changed several times. In [114] the Sivepe area settlements had always been unstable. Rimoldi has made a valiant attempt to reconstruct shifts of residence from the time of European contact to the present; involved though his reconstruction is, it probably tells only part of the story. In 50 years, the groups now represented in Sivepe had between them been involved in shifts of residence between a series of 14 village sites within an area of about two square miles adjoining the Sohu [659] River. It is clear that the government carried out some village consolidations in the district after the second world war, but before the eruption. Most of the people now living at Sivepe were, at that time, shifted to a village called Pamba, which had been occupied earlier by the Seho clan only. After the eruption, Pamba was at first reoccupied, but soon the village was shifted almost a mile away, to a place which was called Sivepe. This new village (see Map V)[A] differed from the pre-eruption one in layout, method of house construction and spacing of the dwellings. It conformed to the model advocated by the administration and observed by the refugees when they were at Wairopi and Ilimo. In 1965, Sivepe was shifted to its present site, and higher building standards and better sanitation were again introduced (see Map VI).[B]

Both these shifts were connected with topographical relation- [578] ships and social relationships outside the village. The first of [628] them, in 1952, seems to have been precipitated by a quarrel between the Timumu clan of Pamba and the resettlement village of Kongohambo, which then had a population of almost 1,000, over garden damage caused by pigs. Sivepe was much farther away from Kongohambo than Pamba. The second shift was in the opposite direction. It was a move which brought the village closer to the road, closer to the mission, and the reduced distance from Kongohambo no longer mattered as this is now a village of average size, with which good relations exist. The people who lived in Kongohambo in 1952 have returned to their homes closer to the mountain.

These shifts in village sites are accounted for by almost a 361 superfluity of reasons. Rimoldi was told of almost all the shifts 657 he recorded that they were made upon the instructions of the government. I was told of shifts that were made because of deaths attributed to sorcery and because of quarrels between neighboring 361 villages which were too close together for comfort. I witnessed [628] one shift after a death of an old man where sorcery was not [754] suspected (as he was old) but being unbaptised he could not be buried in the Christian cemetery which made people fearful of his [764] ghost. The population of this village shifted to nearby Hohorita, a move which was in any case favoured by the government. A reason [775] that was also sometimes given was that the houses were all old and the place was becoming unsanitary. A reason never explicitly given, but perhaps as important as any other is the Orokaiva's dislike for

A [See Cat. 116, p. End Map 5--Analyst]
B [See Cat. 116, p. End Map 6--Analyst]

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
177 the concern of our present project. It is very clear that some basic notion of Christian montheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

177 I have referred several times to the tendency to place ancient
[788] ritual under the protection, so to speak, of the new God. Rituals connected with the taro cycle were performed at Christmas and Eastertime, perferably on the mission station. While the beliefs about the ghosts
● [775]

of the dead remained basically unchanged, Christian burial rites and cemeteries are generally used in the belief that they are efficacious in controlling ghosts. Girls were "shown to the people" after initiation, preferably on the mission station during the Easter dances. The kere which was a women's initiation dance, was also performed on a mission occasion (the celebration of St. Barnabas Day, in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form of initiation ritual to the Orokaiva? This extramural activity, performed in the dead of night, signified a little more than the intertribal status rivalry analysed earlier in this chapter. The text of the songs gives no obvious clues to their significance at the present time. Though it was made up of at least four or five languages, due to diffusion of the cycle through the Northern District, I managed to collect a translation of most of it during a tour of Port Moresby when we visited knowledgeable members of various Musa River tribes. The songs evoke a series of phases in a woman's life, stating symbolically her role in initiation, courtship, marriage, childbearing and feasting. They are very rich in symbolic content which is not relevant here. But they contain no message that can be related to any modern millennial or cargo cult. During a visit to Uiaku, in the Collingwood Bay district, my wife found that the old women in that village knew the songs but not the younger ones. This points to diffusion from the Musa to the Collingwood Bay district some decades ago. All this evidence confirms the mission teacher's own explanation given to me that he introduced this cycle in order to keep old traditions alive, in order to give more strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by the performers especially in the very first dances. They might at that time be doubtful about dance movements and words but not about the demeanour appropriate to the impersonation of spirits. At the very first practise, even the young girls knew the right bearing, intonation and rhythm. This was not truly the introduction of an alien ritual; the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to lend it the ambiguity that was evidently intended. It was not the purpose of the mission teacher to set up this pagan ritual in opposition to Christianity but rather to bring about its continuity in a Christian order. I have already shown in earlier chapters that the Christian dispensation is conceived as not only a religious but also and importantly a socio-economic one--that Christianity, wealth and wage labour are perceived as part of the same complex. If it can be made to accommodate women's initiation ceremonies (after jettisoning, of course, those aspects to which the clergy takes exception) future generations will have the strength of the forefathers. This desire for greater strength, in a physical and numerical as well as spiritual sense, was often expressed to me.

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[1]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[2] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

621 station. The Horeopa leader, who was the owner of this land, then
361 invited these other clans to come over and make Hohorita into one united big village. When the clans came over in 1959, they followed the same pattern as the Sorovi immigrants followed in Sivepe: they arranged their houses so as to maintain, in a subtle but unmistakable way, their own identity. They formed in effect a second rectangle which formed a harmonious continuation of the first rectangle but which was separated by just half a chain. In 1966, the front and the back half of Hohorita held separate feasts, each inviting a different village. In 1967, the councillor made plans to clear the gap between the two halves, remove the two old houses which emphasised the separation and build new houses in the cleared area to join the rows together.

Around this time, the Sombou people began to establish themselves in Hohorita, leaving their old village behind. I think it was they
[769] who filled the gap between the rows. The councillor had long been at
● [775] pains to close down the small villages of Sombou and Kakita and Sombou was finally persuaded after the death of an old migrant who had remained a pagan. As he could not be buried in the Christian cemetery, and people did not feel disposed to carry out the full involved ritual to placate the ghost, they preferred to shift their village. (They thought that pagan ghosts are far more dangerous than Christian ones.)

361 Hohorita, like most resettlement villages, lies along the main
368 road to Popondetta, 11 miles from Popondetta, seven miles from Saiho hospital, three miles from the Higaturu Council chambers. The school, conducted by the mission on Hohorita station, offers an education to the end of Standard 3.

621 The two feasts held in 1966 were intended to introduce into
433 Hohorita the pigless era advocated by all councillors. I arrived a
434 month or two after the feasts and by that time two very small pigs had appeared which were there for a special reason I have forgotten. Sombou and Kakita still had a normal complement of pigs. Coffee was
[231] a somewhat bigger enterprise in Hohorita than at Sivepe. The trees were much better looked after, and there were far more of them. Every
[245] man had his coffee garden and an income of $100 per annum from coffee was normal. Young trees were also being planted at a much faster rate.
[166] Compared to Sivepe, there were very few wives whose husbands were permanently away working. The reason for this was that there are a number of plantations quite close to Hohorita and those who needed to work to pay off bridewealth, etc., could do so without going too far afield. Money to pay taxes and other regular outgoing expenses
464 would come from coffee. Men who were able to find skilled jobs,
167 clerical or professional work usually had their wives with them. An important resource of Hohorita, not shared by Sivepe, is the availability of good jobs within a reasonable distance; the fact that Hohorita families do not break up in the same way as Sivepe ones indicates that such separation is probably economically motivated. It is necessary for a young man to earn his trophies, so to speak, which in the modern world means money, but if he can do it without a prolonged absence from home, he prefers staying home.

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> other... Two or three from either side would spend a few days and nights with the opposite party, and after this the two tribes would meet in armed force on some common ground between their territories to exchange gifts of pigs and ornaments.... (1930: 166)

Williams emphasises that such *peka* were precarious and often mere stratagems for killing more enemies. Nonetheless, feasts were held at intervals, former enemies were invited to them, and when they did happen the slate of old hostilities was wiped clean. No doubt, hostilities of the same kind would often occur again once the feast was over. Nonetheless, if there was no treachery, the feast was an occasion when the estrangement existing between social groups could be overcome in a communion ritual in which primeval amity was restored.

The notion of the feast as communion ritual is most clearly stated in a series of myths, of which the most widely known is that of Totoima. Some of the most celebrated stories about Totoima – his practice of killing men and eating them while wearing pig's tusks, and of killing and eating his children as soon as they were born – are reserved for other chapters of this work. All the stories about Totoima, however, have a similar ending: by some trick (his son stealing his teeth, his son feigning death and concealing a spear, his wife or sister raising many children out of blood from a cut finger so they could murder him) Totoima was killed in revenge for his iniquities. In many of the versions, which we shall discuss in Chapter VII, Totoima is neither fully a human being nor fully a wild pig but rather an undifferentiated pig-man partaking of the nature of both.

Totoima's body was cut into the joints into which pigs (and presumably slain humans) were traditionally subdivided prior to being shared out between guests at a feast. Those who ate the joints multiplied miraculously so that their descendants peopled practically the whole of the Northern District. Usually, at a feast, the joints would be given to the heads of different nuclear or extended families. In this case, the family head who received the right fore-leg became the ancestor of all the Mambare people; the recipient of the left fore-leg became the ancestor of the Opi people; the right hind-leg became Sangara, the left hind-leg Isivita, the head became the coastal people, the back Kokoda, the belly Togahou and the 'liver' Angerita. One might say therefore that Totoima was the primal ancestor of all these warring tribes, and as Williams shows (mostly in his unpublished manuscripts) all the tribes listed here have retained some similar story.

But Totoima was a primal ancestor in a special sense. Strictly, in most of the versions, he was not the sire of the people who ate his meat. He is not, therefore, an ancestor in a genealogical sense. But it was his meat that miraculously caused these small families to multiply into tribes. Thus it was his strength, his *ivo*, entering the bodies of those who ate him, which really caused the tribes to multiply. The tribesmen became the inheritors of his *ivo* and it was from this that their power arose. Totoima was their ancestor in the sense that they had his *ivo*. We are thus led closer to the underlying pattern of Orokaiva political philosophy. As a result of the primal quarrel, the affair of the stolen lashing, social groups were separated by a permanent *isoro*. At the same time they are bound together by a primeval communion, the common eating of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

121 delayed or altogether flounder and the relationship may be prevented from developing.

Gouldner's answer to this dilemma was that there must be a 'norm of reciprocity', internalised in both parties, which *obliges* the one who has first received a benefit to repay it at some time. Other sociologists, such as Blau (1964: 92–3), do not accept this particular explanation, because they do not believe that all social constraints are normative 'and those imposed by the nature of social exchange are not, at least, not originally'. Blau argues, in short, that the advantages to be gained from entering into exchange relations are psychologically so compelling that dangers and suspicions are insufficient obstacles. Even those who fully agree that not all social constraints are normative may feel dissatisfied with this psychological non-explanation.

Let us now consider how the dilemma can be solved in terms of Orokaiva social philosophy as presented in previous sections of this chapter. Orokaiva recognise that social exchange is precarious but claim to have various (magical) devices which are successful if properly used. These devices appear in my model as mediating elements. Why do Orokaiva believe in their effectiveness? They do so because the mediating devices have been instituted by demigods whose heroic feats they re-enact in their rituals. There is a strict code saying what should be done and how it should be done. The exchange fails if the code is not followed. What we have is not, as Gouldner suggests, one norm of reciprocity, but a wide range of codes deriving their authority from mythical demigods. The 'starting mechanism' is, in effect, the whole of Orokaiva mythology. I have been unable to find a charter in this mythology for any rule that a person who has received a benefit should repay it; in other words, I do not know of an Orokaiva mythical charter for a norm of reciprocity. All I have encountered are rules stating what acts are necessary if certain types of exchange are to be effected successfully.

776 I shall clarify these generalisations by giving a brief account of the nature of
171 these demigods and of the rules they instituted, so as to be able to set out more
773 clearly their role in the Orokaiva exchange system. The demigods of the Orokaiva resemble those found throughout Melanesia. Not all the cultures who believe in such demigods have a generic term for them. The Marind-anim of Western New Guinea, however, use the term *dema* to refer to all beings who lived in original time, to whom the creation of a feature of the cultural order is ascribed, and who are celebrated in myth and ritual. I shall follow Jensen (1960) and borrow the Marind-anim term, though other terms used in anthropological literature (culture hero, transformer, etc.) have a somewhat similar meaning.

Jensen presents a useful generalised portrait of these *dema*, as they are found in cultures of tropical tuber cultivators. In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a *dema* but through the circumstances of his death or departure, which make his *dema*-like nature apparent and give rise to an institution. Thus, Totoima became a *dema* as the result of his body being shared among his people; Jomiko and Sirere became *dema* after departing, in their peculiar way, from the world of man. Similarly the coconut *dema* is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of

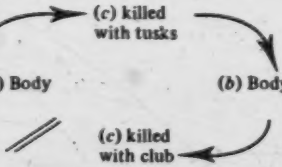
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

776 773 171 son (a man) killed his father with a club, a human weapon. Furthermore, the order of superiority was reversed: it was now no longer man who was killed by a tusked being; man became the killer, pig became the quarry.

From this analysis it would appear superficially that it is not Totoima but his son who ought to have been revered as the *dema*. It is he, after all, who has effected the differentiation between man and pig, who has provided man with pig as his quarry. But this is not how the Orokaiva reason. It is the same with the *dema* Pekuma to whom the technique of meat-roasting is ascribed. Pekuma is not the man who invented, by his own ingenuity, the technique of meat-roasting. He was the victim of another man who played a trick on him, dropped him in a hole, and roasted him. He tasted delicious. The Orokaiva remember Pekuma because he *was* the first roast meat and Totoima because he *was* the first quarry. The gift for which they are celebrated is not their inventive ingenuity but their body, in the form of food. Like the victims of cannibal raids, to whom Jensen devotes a lengthy discussion, the *dema* release their spirit power by the deed of being sacrificed, and this spirit power then becomes available to the killers and to all men.

We have seen, however, that the killing of Totoima was not an isolated event; it was done in response to Totoima's own murderous activities. As Jensen points out, in the life history of the *dema* some fault usually occurs, either committed by the *dema* or someone else, which is represented as the cause of death. We may thus, to some extent, view *dema* myths as a special kind of truncated exchange cycle. Totoima's story, for instance, might be represented in the following diagram in which Man and Totoima are the exchange partners, both of whom offer their body as an object of exchange (or sacrifice):

MODEL 5



In this as in all myths, the exchange cycle is incomplete, as the completing of the cycle in the model would imply that the cycle is intended to repeat itself *ad infinitum*. But the whole point of the myth is that after Totoima it is no longer normal for man to be killed by a pig's tusks, but that pig becomes the normal quarry of man. The world, indeed, has been completely transformed as a result of pig having become man's quarry. Man is now able to multiply rapidly, deriving a great new strength from the pig-meat he is able to acquire. The exchange cycle shown in model 5 has therefore, since that time, been replaced by institutionalised feasting where pig sacrifice appears as an essential mediating element (model 1).[A]

773 574 We may therefore regard truncated exchange cycles such as are shown in models 2[B] and 5 as the starting mechanism of Orokaiva exchange. To put this more concretely, let us consider the large platform heaped with taro that is

A [See Category 574, p. 58--Analyst]
B [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .
In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

539 a victim and Christ's Passion. He also pointed out that by performing this chant,
776 the dancers were sacrificing their bodies to Christ. There was no harm in this
177 performance, he said, because the sentiments in both forms of religion were the same.

[535] Councillor Ase added a more earthy dimension to the pastor's words when he declared that it was Jesus Christ who had given the Papuans the benefit of wage labour. This sentiment might have appealed to Governor Murray. It completes the image of Jesus as *dema*. First, Jesus was killed and gave His body to mankind, or to His followers, by being crucified. His body is still being consumed at Communion services, the deep sacredness of which the Papuans recognise. He also left behind him immense *gifts*: the technology (cargo) of the white man, and money with which men may acquire this cargo. Wage labour is one of the means now open to the Papuans for acquiring at least a little of this money and cargo. Thirdly, like all *dema*, he left behind a set of rules which men have to follow if they are to obtain full access to the particular kind of *ivo* he bequeathed upon mankind.

182 It now becomes a little clearer how the Orokaiva have found a rationale,
771 satisfying to themselves, for the behaviour patterns they are adopting in response
776 to the impact of white power. The coming of the white man is viewed as an
177 event of the same magnitude as the addition of a new *dema* to the pantheon. The most crucial fact about this new *dema* is that it was through his help that the white man obtained extraordinary wealth and power. It was hinted to me from time to time that the white man should have been far more generous in sharing this wealth and power with the Papuans. At the same time, however, it was emphasised that the Orokaiva had already received some substantial benefits, for example the introduction of money, wage labour and cash

[623] cropping. My informant the councillor, whose contact with white authority had
[115] been somewhat closer than was usual in the district, claimed special knowledge about how European-type power might be obtained. It was on the basis of this knowledge that he felt entitled to advise his people to shift to another village. But his audience did not really believe he knew anything.

While the councillor's competence was doubted, his basic ideas were generally accepted: Orokaiva progress was thought to depend on the following of prescriptions originating from the *dema* Jesus Christ. The white man had revealed only part of these prescriptions. (In this respect Orokaiva beliefs resembled those reported by Burridge 1960, 1969.) It was thought, moreover, that these rules prescribed ritual acts performed for the first time by Jesus Christ and now imitated by those who are fully initiated in His mysteries. While these Orokaiva beliefs may impede their understanding of the workings of white society, they do provide a rationale for those white behaviour patterns which Orokaiva are able to observe. They also provide a charter for the changes Orokaiva are actually adopting in their exchange system and elsewhere.

177 One experience at Hohorita made me aware how closely the introduction of
773 Western culture is identified with the action of traditional *dema*. Due to the death of most of the older men of the Sangara tribe at the time of the eruption,
[731] their descendants grew up at Hohorita without much knowledge of myths and traditions. Nonetheless, when I visited the village, a number of men spent several nights with me telling me what they knew. Their information would mostly be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

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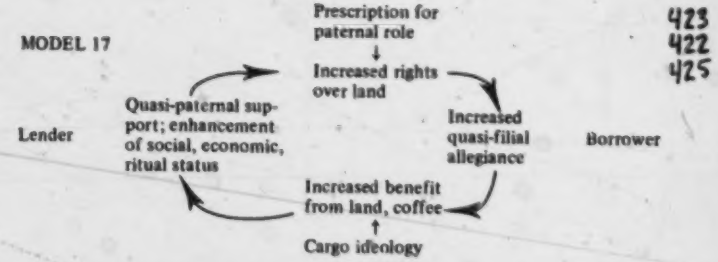
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasize the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 242 776 825 824

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

19: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

III

The above outline of the glories of *hande* and the pains of *tihanga* present a model remarkably like Sahlins's 'balanced exchange', but drawn from what one might call Orokaiva ethnosociology. This Orokaiva model is, however, no more than a first lesson in reciprocity. My informants, immediately after telling and explaining the Javaite Poromo tale, proceeded to a second lesson on what they considered a slightly more advanced level. This was prefaced by: 'I should like to tell you why we tell the story of Javaite Poromo'. It soon turned into the recounting of another myth, complete with commentaries and explanations.

A handsome young man came to a village, married a girl but instead of taking her to a village, he took her deeper and deeper into the bush. It turned out that he was, in fact, a pig who had merely disguised himself as a man for the visit to the village. They lived in the bush where she had a son from him who was a white cockatoo (*agena*). As the pig, together with his friends, now wished to kill the woman, she took refuge, with her son, on a *peromba* tree. When the pigs proceeded to try and uproot the *peromba* tree the mother sent her son to her native village with a message. When he returned, the pigs had almost uprooted the tree, but they fled safely, the mother in the son's beak. As they arrived, the mother warned her kinsmen to expect the pig shortly.

When the pig arrives, he is fully and impressively decorated as before—the tale mentions specifically his fine tapa cloth, his *ganda*, his pineapple club, his headdress of red cockatoo feathers, his shield. The kinsmen convey him to a platform with ceremonial greetings appropriate to a visiting affine, fall upon him with spears, cut him into small pieces and eat him.

The commentary given by informants briefly shows the link between this tale and the question of reciprocity. It was by the killing of the pig, informants said, that the present relationship between pig and man was at last established—they kill us; we kill them; they are given to the land for us to eat. This is in contrast with relations between men, based on mutual visits and friendship. This contrast between pig/man and man/man relationships is not in the body of the text, but its relevance was pointed out to me by the two informants.

It will be fully clear to any initiated Orokaiva why this tale explains the principle of reciprocity. It is also probably quite clear to any trained anthropologist. I think, however, that I am obliged to offer a translation into western jargon. The tale is not for children but, it is implied, for initiated men, i.e. those who have a knowledge of spirits. Uninitiated people think that the strange decorated figures one sees at certain ceremonials are spirits, because they have the plumes of birds, the paint of the dead and the bone and shell ornaments of the ancestors. This is not so; these figures are all men disguised as spirits and ancestors. These disguises ought to be so perfect that the person beneath them is not recognisable. In any case, if anyone recognises them, it would be very rude to make this known. They must be respected in every way as though they were the ancestors they represent. The initiated, however, know that the living man and the ancestor are both present in the decorated man.

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain. [775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to that contention. As against this there is the testimony of missionaries (Toulin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington [776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

[774] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
● 776 which I intend to treat more fully elsewhere and falls somewhat outside
177 the concern of our present project. It is very clear that some basic notion of Christian monotheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

I have referred several times to the tendency to place ancient
177 ritual under the protection, so to speak, of the new God. Rituals
[778] connected with the taro cycle were performed at Christmas and Eastertime,
[775] preferably on the mission station. While the beliefs about the ghosts

121 limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

823 712 I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

823 713 [103] [114]

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

pointed by the administration to enforce regulations concerning law and order, works and amenities. They were not necessarily 'big men', customary feast-givers or, military commanders.[13] At Ilimo they at once became the leaders of all operations (food distribution, house building, visits to the home village), as these involved dealings with the Europeans in control of the rescue and supplies.

These organizational changes, individual fears, grief, anguish, and the increased dependence on village constables and white authorities were certainly reflected in the explanations given of the eruptions. But these explanations took account also of far broader cultural issues, in fact of the total postcontact experience common to the population of the Northern District.

The Orokaiva explanations of the disaster to be considered here certainly cannot be understood except in the context of the total Orokaiva cognitive system. Any Orokaiva explanation places the eruption within a logically consistent framework of meaning, but it is only one of several possible frameworks that might, successively or even simultaneously, be constructed out of the Orokaiva cognitive system. I propose, in the present section, to construct a model of the various systems of connotation and the relations between them. Systems of denotation are briefly referred to here but explored in more detail in the following section.

One obvious line of explanation of the eruption was to ascribe it to the anger of Sumbiripa. Many Orokaiva actually explained the disaster in this way at the time it happened, as may be seen from the evidence of Tomlin (1951), Benson (1955a, 1955b), and Schwimmer (1969:69ff.). The anger of Sumbiripa, as supposedly expressed in the eruption of Mount Lamington, was explained by Orokaiva by various disrespectful acts against the mountain. Grenades had been thrown near the crater during the war. Afterward, the Orokaiva began to acquire guns for hunting on the mountain. Such were the acts quoted to me in Hohorita and Sivepe as arousing Sumbiripa's anger. The eruption was regarded by informants as an unprecedented event. The question arose in the Orokaiva mind why such an event should occur just then, when it had never happened before. The anger of Sumbiripa had always been feared, but no sinister meaning had been attached to the rumblings and smoke signals, and, moreover, revenge had always been mediated through 'ghosts'. The new form of punishment could be explained

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

the death of the 45 Europeans on the mountain but not at all for the death of 4,000 Orokaiva and the destruction of hundreds of villages. It is far easier to understand such an explanation coming from the Yega, traditional enemies of the Sangara tribe, whose own losses through the disaster were very small. There is indeed no reason why the Yega should have been grief-stricken by the eruption at all. They were involved in an anti-European cult according to which the death of the administration personnel at Higaturu was thought nothing less than a divine blessing, while the misfortunes of the Sangara may well have been a further source of satisfaction. The Sangara survivors, who were quartered in an evacuation camp in Yega territory from February to April 1951, felt most uncomfortable there and very frightened that they too would be killed off by their old enemies through poisoning, sorcery, or other mischief.

The data do not enable us to say with certainty whether or not, in the Yega explanation, the eruption was actually caused by the anger of Sumbiripa. Benson (1955a, 1955b) describes the general atmosphere among the Yega immediately after the eruption, and from his account one gathers that the Yega, like the Orokaiva traditionalists, believed Sumbiripa was responsible, though he was credited with somewhat different motives. Kleekham is undoubtedly right that the public execution of the so-called collaborators, conducted by the Australian army in a spectacular and rather gruesome manner, caused much resentment among the various tribes of the Northern District. The Yega cooperatives of the late 1940s, described in some detail by Dakeyne (1966) and discussed in Schwimmer (1969:86–89), were led by two Anglican clergymen, Benson and Clint. They must therefore have believed that power would come to them through the intervention of the Christian God. Though the precise significance they attached to the eruption is not known, the context suggests that they must have regarded it as a sign that supernatural forces were working in their favor or at any rate against their enemies.

The metalanguage used in the Yega explanation is that of a millenarian cooperative cult, arising in response to what was regarded as oppression and commercial exploitation. The eruption established a rule that supernatural agencies punish white people who hang Papuans. In justification of the rule, there was again cogent empirical evidence. Most of the forty-five Australian victims of the

829 felt toward the exchange partner, fear of the trouble he might
511 cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

[578 Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until
791 peace is made by the offer of an appropriate gift and feast. The
784 anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope.
776 Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god.
829 In the framework of Orokaiva thought, serious anger is normally
578 regarded as righteous, at least among persons standing in a regu-
754 lar exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

829 In such a dispute it is of course relevant which side has broken a
578 rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

829 Self-accusation and self-inflicted injury are a regular part of
627 this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship witn God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

121 construct a higher-level system which accounts for all the explanations taken together.

791 809 184 [776] Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial [794] cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

791 657 797 None of these reasons would have sufficed to kill the movement had there been, in the 1950s, a strong opposition to the administration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Alienation in the Creation of Exchange Value

In the Orokaiva village, exchange value may enter in four ways: through cash crops, outside gifts, labour and business. The two latter categories are recent. Whereas wages were an insignificant item in most villages during my 1966–67 study, a recent income survey (Newton 1978) in a typical village showed an overall income of about K675 per household, made up of coffee returns 35%, wages 37%, migrant gifts 12%.

We have no special studies of work concepts in this sector, but some general indications. It may seem surprising that Jesus Christ was nominated as the originating deity of monetary compensation for work, but New Guineans widely regard him as originator of European wealth and therefore also, not illogically, of the concept of money and exchange value. The idea of converting labour into money, in itself, greatly interests New Guineans. Thus Daniel de Coppet shows that in the Are'are social system there is but one traditional method of converting food and services into shell money, viz by acting as an undertaker. For this reason the office of undertaker was a highly valued one. Thus Councillor Colin might well genuinely revere a deity or culture hero who instituted the full convertibility of labour into money.

The term *pure ari* is appropriate to describe the white man's labour if for no other reason than that a 'job' just like the *pure* is a place where one spends the day. The new dispensation has, sure enough, its own conflict (*isoro*) and mode of conflict resolution. Councillor Colin brings this out by his example of the policeman who puts village men into handcuffs and takes them off to court. In such a case it was the task of the sorcerer to ensure that the men would escape conviction and be set free again.[20] Virtue, in such a system, is largely a matter of keeping out of trouble, but also it is a matter of not squandering the money but reserving some – ideally half – of it to serve the needs of kinsmen and fellow villagers: contributions to ceremonial payments, feasts, travel expenses etc. Briefly, wages tend to be converted into political power.

No great value was usually attached to conversion to western commodities, except where these became valued prestations. Thus, when transistor radios became valued prestations, they began to appear in large quantities in the villages and were mostly paid for by absentee workers.

The subsistence/feasting duality continues in this system in that some money is needed for the former but a labourer would have little status in his home village if he did not set aside something for

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

794 Cargo deities are renewed for each movement; in all cases their
●776 return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

435 All these concepts will seem marginal until one sees their
436 implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

472 It is for this reason that Orokaiva are exceedingly interested in
474 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

437 Let us now consider in detail one of the events described by
476

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

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27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Christ does not, like traditional work, have a palpable virtue such that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[22] Yet this money, when it enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules, always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

292 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic
531 creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who
301 may spend days working out the precise effect he wants. Similarly the *hambo*
531 are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body
● [778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 *Music, Dance and Song.* Today the great occasions when body decoration is
533 performed mainly coincide with Christian festivals – Christmas, Easter, and
535 name days of saints. But these dates tend to be close to the festive periods in the traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme: their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .

In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
● [778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 to a man who had lent an ornament for a recent ceremony. I was told that meat
825 is sometimes kept for 'months' so it can be offered at a feast or used to discharge
571 an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251] While the economic motivation in the final disposal of the joints is plain
431 enough, it is less easy to understand the elaborate exchanges immediately
[437] following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give
[262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which
[778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 These beliefs do not, in themselves, explain why it is considered better for
262 meat to be given rather than consumed by the killer. They do, however, carry us
224 back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son
431 slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world.
773 The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

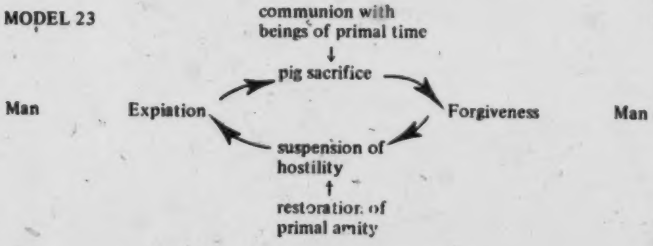
5. *Domesticated Pig as Victim*

231 Pig meat provided at the more important ceremonies of the Orokaiva comes far
825 more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

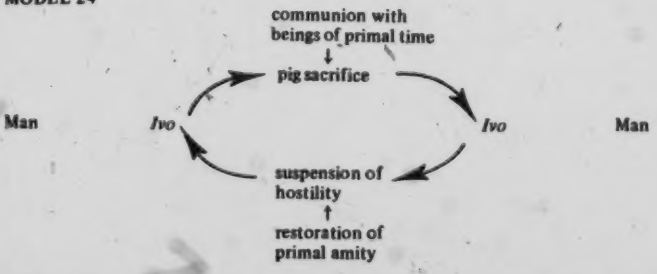
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24



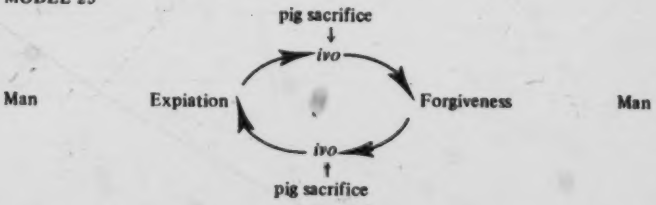
In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.

Models 23 and 24 may be reduced to a single one which shows the essence of the whole transaction:

MODEL 25



This model, which is on a more abstract level than the previous two, states that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

I shall now test the usefulness of this model by using it to account for some empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

The decision to hold a feast might arise in two ways. First, there might be an urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 crop failure at Hohorita would be explained as resulting from sorcery inflicted
621 upon the people collectively by a sorcerer from one of the traditionally hostile
villages near which the Sangara have been forced to live since the eruption. The
[789] sickness of a Sivepe woman resident in Togahou would be ascribed to an
[754] unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It
might have been almost anyone. Both these types of trouble were met by the
collective catharsis of a feast, as everybody had been involved in the wars that
caused the hostility.

574 Yet it is clear, from the evidence presented here, that a feast does not serve to
628 set up warm and affective relationships between collectivities: the host and guest
437 communities, as such, do not actually eat together or converse with each other
572 closely. Strictly, they do not even sacrifice to each other. Certainly, some
significant bonds are established, but these are entirely between the sets of
individual partners. It is they who sacrifice, offer hospitality and make opulent
gifts to each other. It is they who come to know each other in the intimacy of
their homes. In some cases the host has never met his guest before the feast was
planned. In other cases, host and guest are kinsmen or traditional guest-friends.
A partnership which starts at a feast may be ephemeral but if the partners feel
attracted towards each other, it may be perpetuated and even become a
hereditary guest-friendship. Moreover, feasts may generate love affairs and may
make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 While the evidence presented above is consistent with model 25, A that model does
628 not account for all the facts under consideration. If we take a synchronic view of
778 the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

A [See Category 574, p. 148—Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations are resolved by magic. In the last chapter we showed explicitly that this is the view expressed in the Orokaiva folk model of exchange (model 25). There are two implications in this folk model: that magical power (*ivo*) is required to establish social relations and that social relations have the effect of generating *ivo* for those who establish them. The objection that may be advanced against this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly linguistic: the Papuans and Melanesians have only one word for sale and purchase, lending and borrowing, which shows that contradictions between these terms must be illusory. If we survey the Orokaiva data reported in previous chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

571 578 778 121 431 437 [192]
A (See Cat. 571, p. 148--Analyst)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

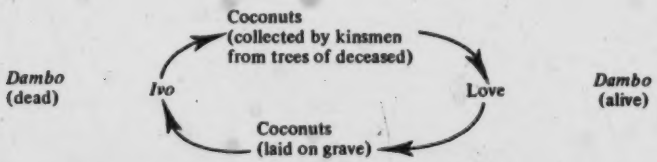
[262] [146] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut [231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in the sense that the fluid would drive away dangerous spirits (1930: 175). With [302] the same end in view, the bodies of female initiands and certain ornaments worn [789] at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by [881] the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. [778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out among the Orokaiva. Profound changes in male initiation ritual have coincided [266] with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another [754]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

so that the room for manipulation becomes greatly reduced. Furthermore, the church teaches a doctrine of obedience, which the Orokaiva nominally accept.

Taken at its face value, this would imply that the Orokaiva are satisfied to subordinate themselves to mission and government and do not consider themselves capable of serious competition with white authority. Such a notion of 'power'—that is, that it depends on obedience to white foreigners—has no rational basis in Orokaiva thought, since the bearer of 'power' cannot be subordinate to human power but only to spirit power. There are thus only two reasonable possibilities: either the ideology which made the eruption into a punishment by the Christian God denies the possibility that the Orokaiva henceforth can have 'power', or that ideology must make some distinction between, on the one hand, God and the principle of rightful authority (which should be obeyed on the pain of dire penalties) and, on the other hand, the existing ecclesiastical and political power bearers (who need not be regarded as having perpetual rightful authority). The position taken by Orokaiva informants on this question is not in the least ambiguous.

The Orokaiva are willing to obey the present power bearers, but only on the ground that they feel unready at present to assume power themselves. They regard the existing relationship as temporary. They are able to state this openly, since the Australian administration claims to prepare the way for early autonomy and optional independence. On the surface, there appears to be no acute political conflict.

In fact, however, the 'new age' ideology is fiercely competitive. The activities it advocates are perceived by Orokaiva as leading to a balance of power between the Europeans and themselves. The strong interest in schooling, savings clubs, coffee production, village improvement, wage labor, and so forth was explained time and again by the argument that these activities would ultimately place Papuans on the same level as Europeans and would remove the power differential. It was explained that in the 'new age' one no longer kills and eats the enemy because victory must now be achieved by different means. The reforms advocated by mission and government are perceived as the first weapons in the armory needed for victory. Victory, however, should not be understood here in the European sense, where it implies a permanent defeat of

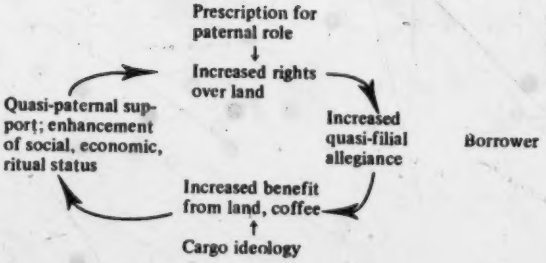
of the dead remained basically unchanged, Christian burial rites and cemeteries are generally used in the belief that they are efficacious in controlling ghosts. Girls were "shown to the people" after initiation, preferably on the mission station during the Easter dances. The kere which was a women's initiation dance, was also performed on a mission occasion (the celebration of St. Barnabas Day, in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form of initiation ritual to the Orokaiva? This extramural activity, performed in the dead of night, signified a little more than the intertribal status rivalry analysed earlier in this chapter. The text of the songs gives no obvious clues to their significance at the present time. Though it was made up of at least four or five languages, due to diffusion of the cycle through the Northern District, I managed to collect a translation of most of it during a tour of Port Moresby when we visited knowledgeable members of various Musa River tribes. The songs evoke a series of phases in a woman's life, stating symbolically her role in initiation, courtship, marriage, childbearing and feasting. They are very rich in symbolic content which is not relevant here. But they contain no message that can be related to any modern millennial or cargo cult. During a visit to Uiaku, in the Collingwood Bay district, my wife found that the old women in that village knew the songs but not the younger ones. This points to diffusion from the Musa to the Collingwood Bay district some decades ago. All this evidence confirms the mission teacher's own explanation given to me that he introduced this cycle in order to keep old traditions alive, in order to give more strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by the performers especially in the very first dances. They might at that time be doubtful about dance movements and words but not about the demeanour appropriate to the impersonation of spirits. At the very first practise, even the young girls knew the right bearing, intonation and rhythm. This was not truly the introduction of an alien ritual; the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to lend it the ambiguity that was evidently intended. It was not the purpose of the mission teacher to set up this pagan ritual in opposition to Christianity but rather to bring about its continuity in a Christian order. I have already shown in earlier chapters that the Christian dispensation is conceived as not only a religious but also and importantly a socio-economic one--that Christianity, wealth and wage labour are perceived as part of the same complex. If it can be made to accommodate women's initiation ceremonies (after jettisoning, of course, those aspects to which the clergy takes exception) future generations will have the strength of the forefathers. This desire for greater strength, in a physical and numerical as well as spiritual sense, was often expressed to me.

MODEL 17



The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 'mythological charter' for this desire for money. It may even be argued that the desire for money requires no ideological explanation. Without entering upon this larger question, I would directly relate the significance given to money in Orokaiva ideology to what has been said in the previous chapter about Jesus Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of greater wealth and power that may later come as the result of the return of the ancestors. Until the coffee industry started, Orokaiva could earn money only by leaving their villages to work for white men. Suddenly it became possible to obtain equivalent amounts from the products of village soil. What stirred the imagination was that a man could go to his garden, pick the coffee and then, after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest proportion of the proceeds of the coffee garden (like a tithe) would not satisfy the owners of the land upon which coffee was grown by useholders. They seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brāhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 successfully cultivated that land, and at the same time no doubt with *dema*
782 figures who instituted agriculture. But most sacrifices have to do with social
431 relations that are either being entered into or that are being restored after a
437 period of hostility. In all such cases the sacrificed pig serves as a gift object to
[572] the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 An exhaustive list of examples of such sacrifices, very often involving only
431 one pig and a rather minor ceremony, cannot be given. If a person has broken
571 off social relations with a close relative in anger, by showing this relative his
825 plant emblem, then relations can be restored only if the angry man is persuaded
[824] to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his
[754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the
628 husband's sister, etc. to the wife's relatives. Feasts given on the occasion of
728 peace-making, or on other occasions where whole villages are invited can likewise
574 be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

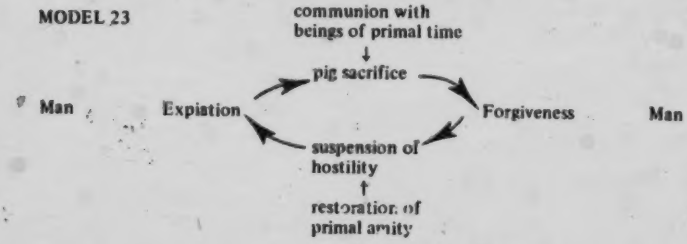
This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 The contradiction disappears if we regard communion with the god not
571 purely as the ultimate end of sacrifice but also (and simultaneously) as the
574 means to the mediation of a social relationship. I am suggesting that the
431 Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

with divine beings. One might say with equal truth that the purpose of communion is expiation and that the purpose of expiation is communion. The transaction may be expressed in the following diagram:

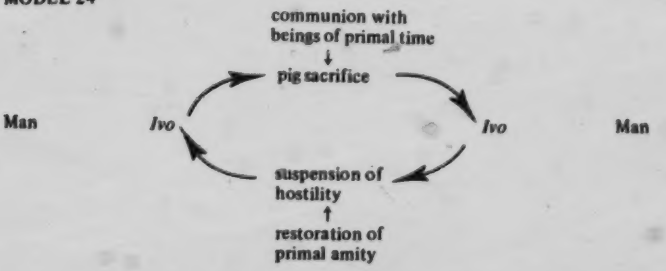
MODEL 23



In this model the object of exchange is clearly expiation. Expiation is mediated by a ritual feast through which all participants identify themselves with beings of primal time and therefore with a period when strife had not become established. This identification is established in the first place by the offender's group which makes the sacrifice. It induces the offended party to participate in the feast and thereby signal its willingness, at least in principle, to suspend hostilities. The purpose of identification is therefore the expiation of offences.

In order to account for the rule that the meat is carried away by the offended party and that it is taboo to the offenders, we need to construct a second diagram, as follows:

MODEL 24

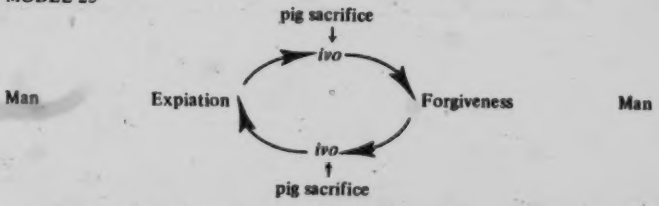


In this model the object of exchange is *ivo* which each group confers upon the other. The exchange is mediated by a pig sacrifice which, according to the Totoima myth, effectively bestows *ivo* upon the guests, *provided* that they carry the meat away with them, and also upon the hosts, *provided* that the guests remove the debilitating influence of any deleterious magic they may have directed at the hosts at an earlier time. One may say here that the purpose of

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

782 sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an effective identification of man with the power-conferring ancestors.
574 Models 23 and 24 may be reduced to a single one which shows the essence of
571 the whole transaction:
431

MODEL 25



571 This model, which is on a more abstract level than the previous two, states
778 that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made
[828] necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim
[574] of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

121 I shall now test the usefulness of this model by using it to account for some
128 empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

574 The decision to hold a feast might arise in two ways. First, there might be an
[628] urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a
[556]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

[769] [614]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to this reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

474 241 worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He 474 241 had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was 177 797 specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural [657] Officer, Mr Cockshott. In mid-May he commenced a weekly co- [191] operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

[782] Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed [795] in the gardens. This aspect of the co-operative movement was [178] regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

474 241 657 In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practise,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepa, I saw a village with new houses, built on the govern-
ment's instructions, but I was told nobody lived there except when
[361] there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (vis Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
always a dangerous one; the calling down of spirits with bullroarers
● 782 in preparation for a feast (viz. Williams) was also, according to
Sivepa informants, an "abandoned" custom; yet it happened in both
178 Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

823 for advice. The tragedy is that subsequent events were unpredictable. When
[731] the blast came it was so swift that there could only have been two or three minutes' warning, and the phenomenon was so far beyond experience or imagination that the people were too numbed to panic. Good order was maintained and the refugees successfully assembled in camps in a remarkably short while. Within two days camps were operating and supplied by air.

823 As the people settled and began to take stock of events, they began to seek for
731 explanations. An aeroplane had been flying close to the mountain at the time of the blast, escaping in the nick of time. One rumour had it that this aeroplane had
[784] dropped a bomb. Most explanations were, however, religious in nature. Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. By April most of these specific rumours
[783] had been countered. There remained, nevertheless, an almost universal belief that God had punished the people for their sins, and these sins were enumerated in general terms, such as lack of co-operation in Mission and Government plans for development. This sense of guilt is a most important factor in resettlement attitudes.

731 Another factor affecting resettlement attitudes was the speed, scale and nature of the relief measures. The war-time miracle—the rapid mobilization of resources—was repeated by the European, not for purposes of destruction but for the help of the Papuan people themselves. Once again the people asked themselves how the European was able to do this; and they were grateful that their need had been met.

Relief was not only provided in the form of rations and building sites where the people erected humpies for temporary shelter. Medical services in the camps were directed not so much towards the healing of the wounded, for few of these had survived, so much as towards the maintenance and improvement of general health. The Higaturu Hospital was completely destroyed, but excellent field dispensaries were set up at Oro Bay, Popondetta and Ilimo. At Ilimo there was also a baby welfare clinic, staffed by two European nurses and Papuan assistants. In a few weeks the Ilimo dispensary and clinic had established itself as a popular institution, serving the needs of surrounding villages as well as of the camp. The large numbers treated bore ample testimony to the scale of medical need in the district and the regularity of out-patient attendance was notable.

[873] The Government maintained a technical training school at Higaturu, and the Anglican Mission had an advanced school at Sangara. Both of these were destroyed with almost complete loss of staff and pupils, many of whom were almost ready for graduation. Immediate relief measures could do little to replace this critical loss. But the Mission, with Government assistance, recommenced village-level schools in the camps. At Ilimo particularly the Government started adult education classes, partly to provide something useful for the people in their leisure hours, but mainly

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178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

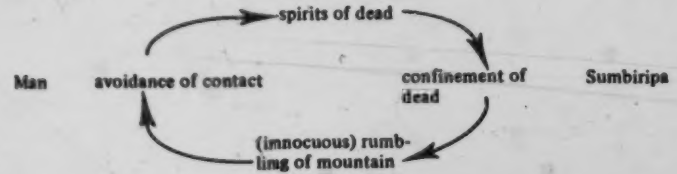
Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

784 823 795 social exchange relationship in which the Orokaiva thought they had defaulted. In the case of Sumbiripa, this relationship was a rather special one as Sumbiripa's gift is the safe confinement of the dead, whereas man's gift is avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa, whereas Sumbiripa mediates by emitting his usually innocuous rumbling. Before 1951, Sumbiripa had never erupted in living memory. We may express this in the following diagram:

MODEL 9



One theory of the eruption was that man had broken the exchange relationship by hunting on the mountain with guns. This disturbance angered Sumbiripa so that instead of innocuous rumbling he emitted the full blast of his immense and disastrous fury. The effect of breaking the exchange relationship with the Church was thought to be disastrous in precisely the same way. Just as the rumbling of the mountain suddenly became lethal instead of benevolent, so the 'communion' offered by the Church suddenly turned negative, dispensing retributive justice instead of mercy. Similarly, default in a social exchange relationship between human beings may lead the wronged person to give Alter misfortunes and diseases through sorcery, instead of the benefits he would otherwise bestow. If a relationship is broken, the wronged partner may respond by invoking negative mediating elements to obtain redress.

823 797 This dangerous trend may be reversed by expressing repentance, and by receiving forgiveness (see models 1 and 3). Subsequently, the offender will be more careful, if he is prudent, to stop the relationship from breaking down. Thus, after the eruption, the Orokaiva became more careful to carry out development activity (model 7) and seek baptism (model 8). The fact that the Anglican Mission denied that God had been angry would in no way diminish their solicitude, as such denials are always issued by offended exchange partners as part of the ritual of showing their forgiveness. Detailed empirical evidence given elsewhere (Schwimmer 1969) in fact shows that the eruption speeded up the development of the *iji eha* ideology among the Orokaiva. It would be wrong, however, to suppose that the supernatural fear propelling the Orokaiva towards development and baptism was due to a cruel deception by the mission or to irrational self-deception on the part of the people. It may equally well be regarded as a case of rational choice. It is not at all irrelevant to emphasise that development and baptism, in fact the whole *iji eha* ideology, was a sensible direction for the Orokaiva to take. The explanation of the disaster which they adopted was not a blind reaction to external vicissitude but rather the strategic reinforcement of a mythical charter for institutions mediating a valuable

A [See Category 829, pp. 58-9--Analyst]
B [See Category 657, p.75--Analyst]
C [See Category 797, p. 77--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 she takes them home. The brother is clearly identified with taro growing in the
773 field.)

244 7. The story tells in more detail than is relevant here how the sister learned
539 what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers.
[262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were
[775] discussing the jungle. It was above all a place where the ghosts (*sovai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sovai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[775] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as
[784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [842] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *peneruma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1(*a*) The man fetches the nuts from the tree.	1(*b*) The woman *helps to fetch* the nuts from the tree.
2(*a*) The man gives the nuts to the woman.	2(*b*) The woman cooks the nuts for the man.
3(*a*) The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*) At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

619
423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
657 forest land; each group can, moreover, produce men who can point out the trees marked by their ancestors and each group is convinced that they alone are in the right and the others merely conniving liars, who will use any methods to steal the land. The intensity of feeling which people generate over land became evident one day when I attended a meeting called by the Land Titles Commissioner to discuss rights to a small area between the Yega and a neighbouring parish. As my Yega friends and I left at the conclusion of the meeting we came on a group of Yega men in the bush fifty yards from the meeting site; they had prepared a supply of sharpened 8 foot poles 'just in case', they said, 'the others started a fight over the land!' Doubtless the other side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
[619] divided into sub-clans and lineages; descent is
591 patrilineal. On marriage, a girl leaves her
178 father's house and goes to live in the house provided by her husband; in past times the couple invariably went to live in the same village as the husband's father, but nowadays the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an animal or edible plant it may not be eaten for food.

614 An abbreviated table illustrating the Yega
613 social structure is given in Table 1.
[P·6-B]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

823 for advice. The tragedy is that subsequent events were unpredictable. When
[731] the blast came it was so swift that there could only have been two or three minutes' warning, and the phenomenon was so far beyond experience or imagination that the people were too numbed to panic. Good order was maintained and the refugees successfully assembled in camps in a remarkably short while. Within two days camps were operating and supplied by air.

823 As the people settled and began to take stock of events, they began to seek for
731 explanations. An aeroplane had been flying close to the mountain at the time of the blast, escaping in the nick of time. One rumour had it that this aeroplane had
[784] dropped a bomb. Most explanations were, however, religious in nature. Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. By April most of these specific rumours
[783] had been countered. There remained, nevertheless, an almost universal belief that God had punished the people for their sins, and these sins were enumerated in general terms, such as lack of co-operation in Mission and Government plans for development. This sense of guilt is a most important factor in resettlement attitudes.

731 Another factor affecting resettlement attitudes was the speed, scale and nature of the relief measures. The war-time miracle—the rapid mobilization of resources—was repeated by the European, not for purposes of destruction but for the help of the Papuan people themselves. Once again the people asked themselves how the European was able to do this; and they were grateful that their need had been met.

Relief was not only provided in the form of rations and building sites where the people erected humpies for temporary shelter. Medical services in the camps were directed not so much towards the healing of the wounded, for few of these had survived, so much as towards the maintenance and improvement of general health. The Higaturu Hospital was completely destroyed, but excellent field dispensaries were set up at Oro Bay, Popondetta and Ilimo. At Ilimo there was also a baby welfare clinic, staffed by two European nurses and Papuan assistants. In a few weeks the Ilimo dispensary and clinic had established itself as a popular institution, serving the needs of surrounding villages as well as of the camp. The large numbers treated bore ample testimony to the scale of medical need in the district and the regularity of out-patient attendance was notable.

[673] The Government maintained a technical training school at Higaturu, and the Anglican Mission had an advanced school at Sangara. Both of these were destroyed with almost complete loss of staff and pupils, many of whom were almost ready for graduation. Immediate relief measures could do little to replace this critical loss. But the Mission, with Government assistance, recommenced village-level schools in the camps. At Ilimo particularly the Government started adult education classes, partly to provide something useful for the people in their leisure hours, but mainly

(or in the case of Irihambo, the Bishop) had decreed them. Had these people been Westerners rather than Orokaiva, they might have asked themselves the question whether the decision of the government to prohibit the Kongohambo people, for instance, to go and live further East in their old villages was a reasonable one. However, there is nothing self-evident in the asking of such a question. Criticism of an administrative decision is, i.e., a calculation of probabilities, fiduciary responsibilities and expediencies. For the Orokaiva, the problem was not whether the government decision was a "necessary" one, but rather: what was the most advantageous action they could themselves take in the circumstances. The advantages of going back to their old village sites were obvious. But these were clearly outweighed by two grave disadvantages: first, the probability of punishment by Australian authorities and secondly, the chance (to which I shall refer in detail later) that the whole eruption might have been a punishment by the Christian God for their earlier disobedience to government and Church demands, and that further disobedience might elicit a further eruption. It seemed foolhardy indeed to challenge both the government and the mountain at the same time. In this sense, we may confidently say that the Orokaiva felt the necessity of relocation.

657 three sides of it. (Administration) attempts to introduce such
361 villages in the Higaturu sub-district had largely failed and the standard of housing was much lower. Further, the people of this area tended to live in small clan-hamlets and resisted propaganda [731] for them to come together into larger village groups. After the eruption, however, the general desire for new things, the sense of [784] guilt at having resisted such innovations before, and a feeling of insecurity combined to make most of the people reconsider their earlier decisions. Although the move was not quite universal, by far the greater proportion of people decided to rebuild their homes in large village units situated close to existing or proposed jeep roads, and on administrative advice decided to follow the Kokoda village plan with substantially improved housing" (1951: 245).

At the time of Belshaw's research the only resettled areas were those West of the Waseta-Sairope line, and the villages Belshaw visited appear to have been in the Sairope area. As it turned out, the Kokoda village plan was in fact adopted in a great many villages in the Higaturu sub-district, though by no means as an immediate result of any decisions that may have been taken at Ilimo. In the Sivepe area, it seems clear that the people's first plan was to return to Pamba and only when Pamba became uncomfortable, partly through quarrels, partly through damage done by the eruption and partly through administration pressure, did they decide to build a new village in the new style. Within a radius of three miles from Sivepe, there are still a considerable number of old-style villages even today: Hamburata, Garombi, Torogota, to mention only three larger ones. Others, such as Duve and Binduta, were beginning to adopt the new style only around the time of my visit in 1966. In 1951, only those villages in which the government took a strong direct interest, such as Awala, Kongohambo, and the villages visited by Belshaw (but I could not enumerate them all) adopted the Kokoda style.

There is also a minor incompleteness in Belshaw's data when he refers to the neatly clipped grass and the rows of houses as being innovations due to the Kokoda influence. The neatly clipped grass was in evidence in 1906 and the regular rows of houses were reported by F. E. Williams (1930: 68). This was, admittedly, reported as late as the 1920's but the layout is consistent with the less explicit descriptions of Orokaiva villages given by Walker (1901) and by Monckton in his descriptions of his battles with the Dobudura and Sangara. The novelty of the Kokoda plan lies rather in the wide central field, the house design and use of materials, and the sanitation.

Undoubtedly, credit for the introduction of the plan must be given to the Ilimo experience but the spreading of the plan over the majority of Orokaiva villages must rather be ascribed to the growing influence of the Local Government Council in the 1960's.

731 retrospective look at the pre-eruption way of life."

Though most of the contemporary evidence tallies with the accounts of Belshaw and Keesing, I should refer to two documents both [789] dating from 1951 which add some subtleties. The first is a short manuscript by Fred Kleekham, agricultural officer, Popondetta, in which he says that "the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings" (of Orokaiva responsible for the murder of missionaries). I tried unsuccessfully to find Orokaiva who still hold this belief. Mr. Kaad had not heard of it and suggested that as Kleekham was mostly working in the coastal region of the Northern District, he may have heard this interpretation of the eruption in that region. In any case, the explanation is worth noting because, once a disaster has been attributed to the anger of a supernatural agency, the causes of that anger are open to many plausible surmises.

797 Father Albert McLaren, while at Ilimo, composed two songs one 533 of which is still widely sung among the Orokaiva and even elsewhere, as it is included in a songbook distributed to primary schools in the Territory of Papua.

1

We were at Sangara
gathered together
With all our brothers
Living together

Chorus: Have mercy on them
Lord, we live in your hand

The mountain was made by Thee
It was not seen by us before;
Lord, when it appeared
We were wounded.

Chorus

O Heavenly Father,
Look on Thy servants
Who are in Paradise
In Thy Glory.

Chorus

When the mountain was shaken
They were watching
With their children
And were buried together

Chorus

797
533

2

In the land of Sangara
Are the bodies of our brothers
As though they were sleeping
But we shall see them again in the end

Our brothers on earth
Had many temptations
They went up to Heaven
In Thy Glory

The evening was bright
On the hills of Ilimo
But our thoughts
Are always with our brothers

731 Father Albert described to me his own experiences with the
784 eruption. He lost his own brother who was with the mission, but he was saved because he had been sent to Isivita for the service on the day of the eruption. He was able to escape by running down from Isivita. When he came close to the village of Simbeki, the darkness closed in. When the light returned, the clouds were red with flame or fire. When people saw this, he said, they thought the end of the world had come and this cloud was the fire of the Last Judgment that had come to burn them. Nobody knew anything about Higaturu being a volcano; or even of the existence of any volcano. They noticed the trees that were blown up, the branches broken down, the little hills of ash covering the valleys and people thought: this is the end of the world.

Father Albert said the Orokaiva did not use to have an idea of the end of the world; it was taught by Christianity. After the disaster, the people discussed it a great deal; through the disaster, God had shown the people just what was meant by the idea of the end of the world. I asked Father Albert whether he regarded the disaster as God's punishment for sins the people had committed, but Father Albert dismissed this idea: he did not think God would punish the innocent along with the guilty. This conversation took place many years after the disaster and can therefore hardly serve to refute the notion that in 1951, the eruption was regarded as divine punishment.

(777) Several government officials charged that the Anglican Bishop actually encouraged people to think that the eruption was a visitation of the wroth of God, as they had not followed the laws of the Church of England. They even add a variety of anecdotes, in which the Bishop threatened that if some demand of his (different in each anecdote) was not met, he would make the mountain erupt again. After meeting Bishop Hand personally, I must confess I am rather sceptical about these stories. The Bishop felt that some Orokaiva believed the eruption was a divine punishment. He stated to me that in his own sermons he

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
[777] especially when they wish to give the impression of being modern and educated. Papuans close to the Mission invariably speak of it as a natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added
[787] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called *sisire*.
[762] A person who is *sisire* withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel *sisire*, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very *sisire*.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
177 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Monckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

731 a warning not to openly disobey the new culture heroes, to deal with
177 them gently and cunningly and avoid making them angry. Thus the
eruption led to greater circumspection if not contrition. It also led
[784] to a sense of deeper involvement with the new age. The immediate
consequence was a fashion of modern village building in 1951, as both Belshaw and Kaad have reported. After this rather brief demonstration of respect to the deity, life reverted to its previous style for some years, after which there was a further period of innovation, more soundly based on the development of the Sasembata school, the local government council, the increase of economic opportunities, both in the towns and in cash cropping, and finally on nation-wide political development. The Orokaiva of today definitely sees himself as entering upon a new age, and he views this with optimism and some excitement. The eruption undoubtedly was perceived as a potent sign of the coming of this new age and the danger of resisting it. For this reason, it might theoretically be expected that new ideas would be accepted more eagerly in the resettlement areas than in the less affected areas such as Inonda.

177 Unfortunately, I find it hard to evaluate the Inonda data. The
554 Christian, cash-cropping families were as concerned to view themselves as living in a new age as were the people of Sivepe. The views of the other families were hard to obtain. Crocombe and Hogbin pointed out correctly that these families explain their non-participation in the coffee scheme by difficulties in their land title. The two authors also characterised the Pagan families as being of "lower status", pointing out that the "higher status" families are (also in neighbouring villages) the most likely to plant cash crops or likely to plant most, (1963: 85) for reasons of prestige. During my own stay, the Pagan families set themselves against participation in the women's club, as they felt it violated traditional custom. I had the impression that there was a status conflict between the factions, as participation in the church, the women's club or any other European activity would have put the resistant faction in a clear position of inferiority, and increased the power of the leader of the other faction who ran all these activities.

Section 11: Acculturation

177 The contacts and the ideological changes sketched in the previous sections have not led to a basic transformation of the culture. Williams' classical account of the Orokaiva, based on fieldwork conducted in 1923, still corresponds in fundamentals to what can be seen today. In the present section, I shall draw attention to some aspects of the culture that have changed since the eruption, but it should be stressed that, in field observation, they are seen as embedded in a largely traditional culture, with a social organization, economy,

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 The mission at Sasembata formed a kind of community of its own.
361 From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

875 It was traditional for villagers also to supply teachers with
425 land for growing taro. At Sasembata, the mission found it hard to
797 get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind
of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely
[731] Papuan. The eruption led to no defection but to a strengthening of the bonds between church and people, partly because of the Orokaiva
[784] interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst]

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

pointed by the administration to enforce regulations concerning law and order, works and amenities. They were not necessarily 'big men', customary feast-givers or, military commanders.[13] At Ilimo they at once became the leaders of all operations (food distribution, house building, visits to the home village), as these involved dealings with the Europeans in control of the rescue and supplies.

These organizational changes, individual fears, grief, anguish, and the increased dependence on village constables and white authorities were certainly reflected in the explanations given of the eruptions. But these explanations took account also of far broader cultural issues, in fact of the total postcontact experience common to the population of the Northern District.

The Orokaiva explanations of the disaster to be considered here certainly cannot be understood except in the context of the total Orokaiva cognitive system. Any Orokaiva explanation places the eruption within a logically consistent framework of meaning, but it is only one of several possible frameworks that might, successively or even simultaneously, be constructed out of the Orokaiva cognitive system. I propose, in the present section, to construct a model of the various systems of connotation and the relations between them. Systems of denotation are briefly referred to here but explored in more detail in the following section.

One obvious line of explanation of the eruption was to ascribe it to the anger of Sumbiripa. Many Orokaiva actually explained the disaster in this way at the time it happened, as may be seen from the evidence of Tomlin (1951), Benson (1955a, 1955b), and Schwimmer (1969:69ff.). The anger of Sumbiripa, as supposedly expressed in the eruption of Mount Lamington, was explained by Orokaiva by various disrespectful acts against the mountain. Grenades had been thrown near the crater during the war. Afterward, the Orokaiva began to acquire guns for hunting on the mountain. Such were the acts quoted to me in Hohorita and Sivepe as arousing Sumbiripa's anger. The eruption was regarded by informants as an unprecedented event. The question arose in the Orokaiva mind why such an event should occur just then, when it had never happened before. The anger of Sumbiripa had always been feared, but no sinister meaning had been attached to the rumblings and, smoke signals, and, moreover, revenge had always been mediated through 'ghosts'. The new form of punishment could be explained

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sumbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

ject of the wrath of the mountain. There are, however, two interesting differences. The first is that in the Orokaiva explanation we find an opposition between two tribes (Waseta innocent; Sangara guilty). In the Yega explanation we find an opposition between ethnic groups (Papuans of the Northern District innocent; Europeans guilty). This classing together of the Papuans of an entire region is a departure from traditional tribalism. It reflects an ideology aimed at maximizing indigenous power by the establishment of an intertribal regional coalition.

The second difference lies in the role of Sumbiripa (or whoever the angry deity was) in the two explanations. In the Orokaiva version, the transgression was against the sacred domain of Sumbiripa and thus of a familiar traditional type. In the Yega version, the punishing God assumes a strangely political role in taking the side of the Papuans against their enemies, the whites. The crime of the whites admittedly took place near the mountain, though not in the sacred domain. Sumbiripa was never, in any other context, described as a general defender or avenger in support of "his" people. Indeed he seems to be playing a somewhat Jehovah-like role in this tale. We are here in the sphere of the Cargo Cults or millennial movements rather than in that of traditional Melanesian religion.

Meanwhile no mention is made of the 3,500 Sangara who died in the disaster. This would have weakened the argument, for any reference to the Sangara victims might have suggested that they too were worthy of punishment. Though the Yega probably do think so, it would not have been expedient to say so when an intertribal alliance was contemplated. Here we are obviously closer to ideological rhetoric than to philosophical speculation.

The third explanation of the disaster is the one that has attracted the most attention by previous writers. Belshaw, who met Orokaiva survivors a few weeks after the eruption, records the following observations (1951:242):

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them betrayed missionaries to the Japanese. [Others again mentioned] lack of cooperation in Mission and Government plans for development. . . . This sense of guilt is a most important factor in resettlement attitudes.

Keesing (1952:18) agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life."

A great deal of evidence supports Belshaw and Keesing in their suggestion that in 1951 the Orokaiva ascribed the eruption to the anger of the Christian God and thought they had brought this anger on themselves by various transgressions. Orokaiva informants reported that this view of the eruption was widely current at Ilimo evacuation camp. It is reflected in a song about the eruption which is still sung by Sivepe youth. This song declares the omnipotence of God and man's absolute dependence on him. It also attests to a wholly Christian eschatology: the abode of the dead is Heaven, where the living will later meet their brothers who died in the eruption. The song admits the guilt of the dead ('our brothers on earth had many temptations'), but the strongest emphasis is on the suffering of the living through the loss of their 'brothers'. Unlike Job, the singer is far too polite to contend with God and criticize his actions. He does not openly and clearly identify God as the author of his sufferings, but God's responsibility is subtly implied.

The rationale of this explanation is not obvious. Quite clearly those who believe that God and not Sumbiripa was responsible for the disaster have some belief in Christianity. In response to contact with the white man they have developed an ideology supporting the work of the missions. But how do they explain the eruption? It seems very clear that in 1951 many explained it as retribution for their lack of respect for the Christian God. But Orokaiva Christians interviewed in 1966 and 1967 rejected this explanation as resting on a misunderstanding of the nature of God. Father Albert, who composed the song referred to above, was one of those questioned. He said that many of those who died in the eruption were little children. He did not think God would punish the innocent along with the guilty. On the other hand, he did ascribe a divine purpose to the eruption. Father Albert said the Orokaiva used to have no idea of the end of the world; this notion was taught by Christianity. After the disaster the people discussed it a great deal: when they saw the sky darken and people dying from the blast, they thought the end of the world had come. God had shown them what the end would be like. In other words,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Father Albert thought that God sent the eruption as a sign. Orokaiva Christians would generally agree with this view, though none of those interviewed formulated it so clearly.

From the viewpoint of this study, the question whether the Orokaiva considered the eruption as a punishment or as a sign is perhaps not a crucial one. In either case, whoever believes that God was responsible must also believe that a dire fate awaits anyone who fails in his obligations to the mission.

Comparing the three explanations surveyed so far, we note that the Christian explanation, like the Yega one and unlike the Waseta version, attached no significance to tribal divisions. God (like the Sumbiripa of the Yega) makes no distinction between tribes, but he does distinguish between the disobedient Papuans of the region and the administrators and missionaries these Papuans failed to obey. The former are guilty but not the latter.

Christian and Yega theories are opposed as to who is the guilty party. Indeed, the Christian explanation omits all reference to European deaths on the mountain, just as the Yega version suppressed the fact of the Sangara victims. The reason is no doubt the same: rhetoric demands that one should not in the same breath advocate a coalition with the white power bearers and admit that the latter suffered many deaths in circumstances implying their guilt.

With regard to connotations, all three systems differentiate between either tribes or ethnic groups that fell victim to the disaster, even though such differentiation is insignificant for explanatory purposes. If we use a minus sign to designate the social groups classed as guilty and a plus sign for the groups classed as innocent (though in fact the latter, too, suffered serious losses), we find:

	Victims		
Explanation	Waseta	Sangara	European
Waseta	+	−	omitted
Yega	+	+	−
Christian	−	−	+

I shall briefly mention a fourth system, though the explanation it contained was put forward by a small minority and was but feebly believed. Several Orokaiva close to the mission maintain nowadays that the eruption was due solely to geophysical causes. The mission authorites put forward this explanation to counter criti-

felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer IE-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

whose contact with this aspectt of European culture heretofore had been rather slight. The impactt of these intensive programs should not be overestimated, howeveir. For people whose world had been shattered by disaster and rellocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission om the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idiea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosysttem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

[p.328]

FIGURE 1 Example of Orokaiva Explanation of Anger of God

Disappointment
Default
Murder of missionaries. No subsequent improvement in participation.
Eruption.
Anger
Admission of guilt
Increased cooperation.
Gift of baptism and communion.
Pastoral Care
Obedience
Material help and participation in church.

[p. 329]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773 574 [345] [554] demigods who are believed to have stablished the institution of building a feast house. As this couple were in the feast house during the fight, it may be assumed that they were, in a ritual sense, the feast-givers. A modern feast also always has a person occupying the office of feast leader who is charged with the ritual as well as the organisational tasks of the feast. This leader (*pondo kiari embo*) is a man acting alone, and there is no mention that his wife has any function. This is a curious discrepancy between myth and custom, especially as elsewhere in New Guinea the feast-givers are often an elderly couple (e.g. Landtman 1927).

773 574 787 I was told that the people of Hamburata, before holding a feast, always consult the stone mentioned in this tale. When the wind blows through it, it makes a whistling sound, and is the sign that a feast may be held. This may be regarded as part of the ritual precautions necessary to ensure that a feast will be successful, but it is a purely local custom. The rule that a feast may not be held in hungry times is quoted and observed by all Orokaiva informants, of whatever locality. For the purpose of my analysis it is more important than the rule concerning the stone.

773 574 This tale resembles the one previously quoted in that both are concerned with a quarrel (*isoro*). The affair at the feast was not just an ebullient sham fight (*embogo*), but a serious battle, as the term *isoro* implies. But the messages of the two myths differ, in fact they seem to contradict each other. The message of the feasting myth may be summed up as follows:

1. In original time, men might hold some kind of feast at any time, but since the days of Jomiko and Sirere such permanent amity was no longer permitted. The *isoro* ended it.
2. Feasting was henceforth permitted only after special precautions had been taken and special permission obtained from the demigod. It had become an exceptional event, for which a special feast house had to be built.
3. The main criterion for the appropriateness of a feast was abundance of food.
4. A feast could be permitted only if perfect peace reigned among the guests. If the guests quarrelled the demigod's spirit would at once depart and the feast would be ritually void or even calamitous.

773 574 728 While the *isoro* was mentioned in the myth of the stolen lashing leads to a permanent state of war, the *isoro* in the feasting myth leads only to a restriction on the occasions when feasts may properly be held, and a rule to keep the peace for the feast's duration. How can these two apparently discrepant ideas about the nature of *isoro* be reconciled? My Orokaiva informants considered the two myths as stating different aspects of the same principle. Certainly *isoro* is (or used to be, before the Australians came) an expression of mutual anger that will never end. But it may be briefly interrupted, and it is good that from time to time the anger should cease and that men should then come together for a common feast.

Williams describes these interruptions exremely well:

> The lively monotony of warfare was broken by intervals of peace. A truce-making was called *peka*, and the first emissaries were women who, born members of one tribe, had married into or been captured by the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

348 [811] [198] The nearest school is about six miles away across the river at Hohota. Some children attend this school spasmodically and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

498 [366] 429 Kerosene, tobacco, sugar, salt and other household requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
especially when they wish to give the impression of being modern and
[777] educated. Papuans close to the Mission invariably speak of it as a
natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added a refinement. Before Sumbiripa blew up, he gave two signs. To the
[787] Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisiire.
[762] A person who is sisiire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisiire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisiire.

Certainly, the eruption would be followed by a resolve not to
731 make the harsh power that brought the eruption angry again. Whether
784 this power was primarily identified with God or with Sumbiripa is
177 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Honckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data, dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

794 women who had joined the group favoured another site: a small settlement
575 very close to Sivepe and the mission station and affiliated with
578 Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 The Orokaiva attitude to Christianity is a complex subject
776 which I intend to treat more fully elsewhere and falls somewhat outside
177 the concern of our present project. It is very clear that some basic notion of Christian monotheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

177 I have referred several times to the tendency to place ancient
● [778] ritual under the protection, so to speak, of the new God. Rituals
[775] connected with the taro cycle were performed at Christmas and Eastertime, preferably on the mission station. While the beliefs about the ghosts

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be made by an individual. The abandonment of initiation ceremonies can [881] likewise occur only on the basis of a corporate decision. At Sivepa they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. [583] Similarly, the inclusion of money in bridewealth is an innovation which, [436] once made in a homogeneous community, is bound to become standard practise. In Sivepa the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepa, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at
● 798 Inonda, and only one, as far as I can find out, in Sivepe--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

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[Information on ivo, a pervasive supernatural power sometimes called "magical force", will be found in Category 778.]

5: Schwimmer E-4,5 (1966-1967) 1973
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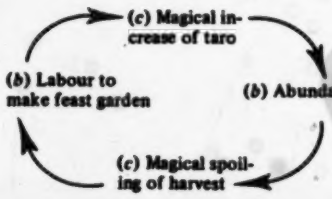
Mountain Orokaiva

This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

5: Schwimmer E-4,5 (1966-1967) 1973
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Mountain Orokaiva

guarantee success. The transaction between man and his garden must be mediated by the holding of a feast that will dispel noxious influences by which sorcerers have, in the past, spoilt a man's garden. After the feast, the garden will produce abundantly, but this abundance will not last. In fact, the resumption of social relations will lead naturally to hostility; again sorcery will spoil the harvest. Sorcery mediates between man and his garden to impel the gardener to make a new feast garden; thus the cycle is repeated.

This model (No. 4) expresses a point to which my Orokaiva informants returned time and again. The most important benefit an Orokaiva expects to get out of a feast is not improved social relations but a better taro harvest. The rituals of repentance and forgiveness which entered into models 1 and 3 are magical performances with improvement of the harvest as their ultimate purpose. Thus it is wise not to restrict our study of exchange to the social and economic levels only, because the basic transaction may occur on a quite different level, in this case between man and his garden. The method of analysis I am proposing here has the advantage that it moves with equal ease on all levels at which collective representations exist.

4. *The Starting Mechanism*

In this chapter I first sketched Orokaiva social philosophy; I then abstracted some simple diagrams to represent this philosophy. Some elements of the exchange cycles represented by these diagrams are found in all or most cultures. All cultures have transactions between hosts and guests; all agricultural societies have transactions between man and his garden. Exchanges of social objects such as repentance/forgiveness, labour/abundance arise out of universal tendencies of man or nature. There is, however, nothing universal or logically necessary in the particular mediating elements appearing in these diagrams. Meat and taro, good and bad magic, *peka* and *isoro* – these are all peculiarly Orokaiva means for the mediation of social exchange. When Homans and Blau developed their (sociological) theory of social exchange, they gave no systematic attention to mediating elements, and rightly so, because their interest was universal laws, and mediating elements are never universal. However, for the anthropologist, who usually treats cultures as a significant variable, the mediating elements are of special importance.

Nonetheless, even if particular mediating elements are not universal, the use of mediating elements is a universal characteristic of social exchange. Sociologists, by ignoring this fact, have occasionally found themselves in difficulties, as for instance in their discussions about the 'starting mechanism' of social exchange. Gouldner posed the problem clearly in his essay on 'The Norm of Reciprocity' (1960: 177):

> Let us suppose two people or groups, Ego and Alter, each possesses valuables sought by the other. Suppose further that each feels that the only motive the other has to conduct an exchange is the anticipated gratification it will bring. . . . At least since Hobbes, it has been recognised that under such circumstances each is likely to regard the impending exchange as dangerous and to view the other with some suspicion. . . . Thus the exchange may be

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OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 57h, p. 59--Analy-t]

MODEL 7

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177
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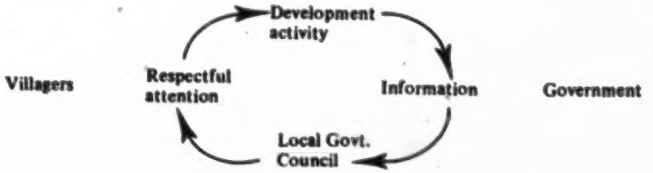

The elements of mediation are entirely indispensable in this relationship. Unless there is development activity, the government will feel that the relationship has broken down. Unless the councillors intervene, the government's information cannot be communicated.

Both the villagers and the government find this exchange cycle highly precarious. It is precarious for the villagers because social exchange, for the Orokaiva, implies a state of competition between the partners. It is unprofitable to engage in social exchange with a partner unless one can hope to equal him (and even better him) in wealth and power. This desire to equal (and defeat) the Europeans competitively is an ambition of which informants spoke to me occasionally when I came to know them well. It was quite clear to the Orokaiva that they could never achieve this objective by growing coffee on small village plots. Hence, they could not regard the activity advocated by the government as being worth engaging in for its own sake. The question facing them was: will this activity serve our ultimate end of achieving equivalence or victory? The term 'development activity', as used in model 7 implies that it is thought to serve this ultimate end. 657 177

I demonstrated in the previous chapter that all elements of mediation are essentially magical. The Orokaiva similarly regard development activity as magical. In response to this notion, government officers sometimes evolve rules of behaviour that look remarkably like magical formulae. One officer in the Northern District invented a regular weekly calendar which he thought the Orokaiva should follow. Certain days of the week should be set aside for coffee growing, others for growing and marketing extra garden crops, others for cleaning and improving the village, and so on. I heard the officer proclaim this calendar; later, I heard a councillor proclaim it in Siwepe village. It was listened to with respectful attention, but afterwards ridiculed by the village men. The formula was rejected because it was thought to be useless. There was, of course, a plethora of such formulae circulating as many officers thought up their own, and most officers were rapidly transferred from one job to another. It was natural, therefore, for the Orokaiva to become selective in the formulae they adopted. Also, experience showed them that the formulae did not always work. 657 177 241 789

The difference between this modern magic and the traditional varieties lies in the greater uncertainty of the prescription. The Orokaiva habitually use an experimental approach to magic: if one medicine does not work, then try another. But all traditional medicine has at least an impeccable source: it was given by the ancestors. The magic of 'development' (money, Western technology, Western power) was, in Orokaiva belief, ultimately derived from Jesus 177 657 789

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Christ and perhaps other supreme sources of which they have no knowledge, but these ultimate sources mostly seem inaccessible to the Orokaiva; the people know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidently, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

It may thus be said without hyperbole that community development among the Orokaiva has a mythological charter – namely, the Christian religion as the Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

But the second mediating element in this relationship is the councillors, through whom the government's information must pass to reach the people. They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 ground, and with harvesting, which he may not do. Upon marriage, the new wife
241 is usually expected to garden on her husband's land. There is a fiction that, at
the time of marriage, she 'does not know' the work she is expected to do on the
[581] land of her new affines. Her mother-in-law has to instruct her and it is only after
[585] such an apprenticeship that her husband's people consider her competent to tend taro on their land, harvest it and offer it to visitors in proper style. She would usually have been trained in these tasks by the women of her own clan, but the subtleties of family traditions differ.

423 As against these male and female obligations, we may note some clearcut
593 rights: the man's right to his wife's labour and the wife's equally important right
241 of unlimited access to the husband's garden land and to its produce. This right extends not only to harvesting food for the household, but also for gifts she may
[578] choose to make outside the household, providing that she manages the food
[586] supply so as to avoid shortages. A domestic dispute I observed in Sivepe (referred to in Chapter III above) illustrates the importance attached to this married woman's right. When this dispute was adjudicated, the 'explanation' of the breakdown of the marriage was found in a single incident, namely the husband's instruction to his wife not to go to his garden again. Here, in the view of everyone present, lay the 'root' of the trouble, a judgement with which the husband was willing to agree. This prohibition to go to his garden is one of the few things a husband is on no account to utter to his wife; it amounts to total repudiation of the conjugal relationship.

[431] This brief discussion of social practices has already indicated that a garden
[462] plot is a gift made by a man to a woman, while the productiveness of the land is a gift from a woman to a man (because a man can neither plant nor harvest). Let us now consider to what extent the nature of these gifts may be clarified in the
423 light of rituals, myths and indigenous explanations. It will be best to begin with
241 some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.) among others, several sets of rights arise with respect to any one piece of land: rights of the village, of the clan, of the lineage, and of the 'father of the ground' or trustee. It is the last-mentioned person who assigns a piece of land (*ende*) to a cultivator for the purpose of making a garden (*pure*). The cultivator to whom
[562] land may be assigned may be either male or female. Among the Orokaiva it is
[462] common for women to have land assigned to them for cultivation in their own right, even though most land is assigned to males. They receive this land mostly from a father or brother, sometimes from their mother. When a woman wishes to have a garden established on her land, she (voluntarily) transfers the land to her husband or another male on a temporary basis so that he can carry out the
[789] crucial male tasks without which the garden cannot be made. These tasks are ritual as well as productive. It is common for the men of a clan to hold a feast together and to kill a pig from which they eat and obtain strength (*ivo*), before clearing new ground. The fertility of the soil depends greatly on getting a good burn after clearing, and a good burn depends on climatic conditions that can never be wholly predicted. I was unable to find out much about the ritual connected with clearing but gather it had to do with control over the sun and
[775] the rain. Another magical danger that arises in new gardens comes from the ghosts (*sowai*) lurking in the reverted gardens or bush that is being cleared. The garden thus established is the gift made by the man to the woman; the *pure* is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, the commitment of productive effort outside the range of the security circle all tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens when the former blights the crops of the latter by placing a curse on the land. In many situations of this sort, events which we would class as metaphysical, physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.
2. For the location of Garombi, see Fig. 10.
3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.
4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

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OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

into two separate realms: the human world, comprising villages and gardens, and the wild world, *aiiri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o.ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

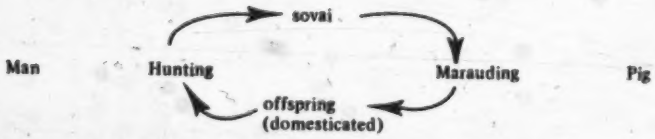
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

distinguishes wild pigs from domestic ones. Once the spirits have been effectively expelled, the piglet *thereby* becomes domesticated. This means that it obeys the calls of its mother. It learns to forage in disused gardens but keeps away from growing taro. The piglet will not stray too far into the bush but comes home every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed. In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22



Live domesticated pigs are not used a great deal for the mediation of social exchange. Certainly the rearing of pigs enters widely into the exchange of prestations between the sexes, for it is a task women customarily perform for close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among the Siane, but here the purpose was somewhat different. The Siane have feasts at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

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OJ23 Orokaiva OJ23
Mountain Orokaiva

desire to raise the prestige and potency of the group, to initiate a new age set. In that case, the village elders might well take the decision to hold a feast before they had determined precisely who would be the guests. Usually, a number of motives were present simultaneously: the feast would strengthen the prestige of the leader who gave it, and of that leader's village; it would build up alliances and allay hostilities, while at the same time some young people would be initiated and any other minor pending ceremonial duties discharged.

In 1967, all three villages I studied were involved in feasting. Inonda's feast was in return for the invitation from Sewa the previous year. Sivepe was inaugurating feasting relations with Togahou, a traditionally hostile village with which Sivepe desired friendly relations. Hohorita had held two feasts in the previous year and had received return invitations. The Sivepe feast of 1967 and the Hohorita feasts of 1966 provide an interesting example of the diverse arguments by which people may be induced to hold them. In the case of Sivepe, two generations had passed since the last war with Togahou. The abductions of that time had led to legitimate affinal relations and some reasonably peaceful marriage arrangements, but relationships had remained rather cool. The sickness of an old Sivepe woman married in Togahou led to a series of massive visits and to a desire on both sides to open feasting relations so as to bury old hostilities.

In Hohorita I was given the explanation that the feast in 1966 was held because 'feasts are what brings food', in other words feasts magically increase the yield of the gardens. Informants considered some of the important benefits of the feast to be that the first-born had been ritually blessed, that rain-making ritual had been performed, etc. But an analysis of the recent history of Hohorita made evident the presence of other motives. The village had been established in 1957, the inhabitants being the survivors of the Sangara tribe, which had lost over 90 per cent of its members during the Mount Lamington eruption. The establishment of the village had been followed by years of economic stringency, but at last by 1966 the economic effects of the disaster had been wholly dissipated, coffee trees had begun to bear, and the prime problem of the Sangara survivors became the establishment of friendly relations with surrounding villages. This was not easy, as the Sangara had been powerful warriors greatly feared by the rest of the Orokaiva. I found plenty of evidence that the Sangara are still far from popular.[3]

Sangara informants told me that they did not know which villages they would invite as guests at the time it was decided to hold the feast. The custom is, so I was told, for a prominent man to announce that he desires to give a feast. This man thereby assumes responsibility for a substantial part of the provisions that will be necessary. He must have wealth, but he must also have ceremonial knowledge and diplomatic expertise. Such a feast leader is called a *pondo kiari embo* – a feast expert.[4] Once this man has made the announcement the men present at the meeting will decide among themselves which village will be invited. It turned out that the first village chosen by Hohorita declined but a second village (Koipa) accepted. Although my Sangara informants did not overtly state to me that the purpose of this first post-eruption feast was to make peace or build up good relations with neighbouring groups, this was quite definitely the effect. We may conclude that feasts are normally decided upon for a combination of religious and political motives.

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [842] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 crop failure at Hohorita would be explained as resulting from sorcery inflicted
621 upon the people collectively by a sorcerer from one of the traditionally hostile
[789] villages near which the Sangara have been forced to live since the eruption. The
[754] sickness of a Sivepe woman resident in Togahou would be ascribed to an unknown Togahou sorcerer in whom the old anger against Sivepe still rankled. It might have been almost anyone. Both these types of trouble were met by the collective catharsis of a feast, as everybody had been involved in the wars that caused the hostility.

574 Yet it is clear, from the evidence presented here, that a feast does not serve to
628 set up warm and affective relationships between collectivities: the host and guest
437 communities, as such, do not actually eat together or converse with each other
572 closely. Strictly, they do not even sacrifice to each other. Certainly, some significant bonds are established, but these are entirely between the sets of individual partners. It is they who sacrifice, offer hospitality and make opulent gifts to each other. It is they who come to know each other in the intimacy of their homes. In some cases the host has never met his guest before the feast was planned. In other cases, host and guest are kinsmen or traditional guest-friends. A partnership which starts at a feast may be ephemeral but if the partners feel attracted towards each other, it may be perpetuated and even become a hereditary guest-friendship. Moreover, feasts may generate love affairs and may make strangers into affines.

It is in the individual friendships established in the host and guest villages that we find the best hope of future peace. Though strife between individuals is always likely to recur, it is the inter-village friendship links that may prevent this strife from spreading and becoming collective. Any explanation of Orokaiva pig sacrifice has to take account of the fact that many of the vital transactions, sacred as well as secular, are between individuals, not collectivities. The rites give a good deal of evidence for both communion and expiation, but their concrete end product is a set of dyadic relationships restored or established between individuals and their households. Certainly religious ideas enter into the transaction between the offerer and the beneficiary of the sacrifice, but these ideas serve principally to give the act of sacrifice the deep significance that is attached to the human bond: the sacrificer is possessed by his ancestor as he kills his own pig-child. This is powerful magic indeed with which to obligate the partner who receives the flesh of the victim.

7. *A Model of Pig Sacrifice*

574 While the evidence presented above is consistent with model 25,[A] that model does
628 not account for all the facts under consideration. If we take a synchronic view of
778 the transaction between host and guest, it is clear that both gain *ivo* from the feast. The guest gains *ivo* as he distributes the pig meat he has received to members of his family and perhaps some other members of his local group. The host gains *ivo* as the deleterious influences that previously caused disease, crop failure, etc. have been dispelled. We do not, however, obtain any explanation from the model as to why the pig sacrifice was a necessary preliminary to the obtaining of *ivo*.

A [See Category 574, p. 148--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

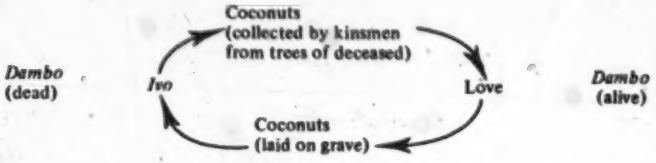
[262] [146] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut [231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With the same end in view, the bodies of female initiands and certain ornaments worn [789] at dances are rubbed with coconut oil (1930: 207). It would appear, in view of this evidence, that the coconut is in general identified with *ivo* communicated by [881] the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*sivo*). A man

604 receives certain essential medicines from his father (e.g. for hunting, for planting
789 taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: *ba kovari sivo*, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; *kakara sivo*, a medicine for success in sex; and *saruka*, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation
301 to confer it. It depends in theory on the *epe's* appraisal of the worth of the
604 young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 When I asked informants about the significance of *otohu*, their replies were in
301 general very close to what Williams had reported: people respect their *otohu* as
577 the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big.
[778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 The second ritual actor about whom I obtained additional data was the
881 *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out
[266] among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 *Aguma* were usually not from the same village as the initiands. They were
881 generally invited from a village two or three miles distant. In Sivepe, villages such
628 as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The
[754] total list of *aguma*-villages as given to me had a striking resemblance to another

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.
423

Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built houses on their own blocks on either side of the access road. In addition, they have built a 'meeting house' in which passers-by can sit and chat, and a latrine. One is the son of the other's mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

121 these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout the year, both in Sivepa and Inonda. The Inonda people think that the nights at Sivepa (and on the mountain generally) are rather cold and it is true that in Inonda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [921] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [789] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inonda rainfall is somewhat below that of Popondetta; Sivepa rainfall is significantly higher than at Awala. Thus Inonda usually gets 80 to 90 inches of rain per year while Sivepa gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [821] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepa; in May-September at Popondetta and Inonda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

132 In October the heaviest rains begin and this is the period 241 when crops grow fastest. Thus the crops planted during the dry period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the ideological pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepa, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garombi, a neighbour-village to Sivepa. Here traditional and modern authority were vested in different persons, whereas in Sivepa both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepa and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepa were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepa; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepa was wholly Christian. The most senior man in

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement cooperation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[27]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 425 imbued with the spirit of the donor and (ideally) compelled to behave as though he owed the owner quasi-filial allegiance. This is a magical action of precisely the kind I envisaged in the introduction to this chapter.

775 Finally, a transfer of land may be maintained indefinitely as long as, in the donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the donor desires. But when the relationship breaks up, for one reason or another, 423 425 the owner desires to have his land returned to him. This is why 'residual rights' on cash cropping land are so awkward. The modern age, the desire for money, 571 the commitment of productive effort outside the range of the security circle all [178] tend to disrupt the relationships envisaged by the lender of land. Meanwhile, modern political, judicial and administrative institutions have taken over many of the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

791 Land may also act as a mediating element in a negative exchange between a sorcerer and a person who has aroused the anger of that sorcerer, as happens 789 when the former blights the crops of the latter by placing a curse on the land. In 423 many situations of this sort, events which we would class as metaphysical, 425 physiological or climatological are explained as arising out of social exchange. Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

577 The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

000 1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.

2. For the location of Garombi, see Fig. 10.

3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.

4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

Community rice and cocoa projects

In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally linked to the mission.(1) The main activity of the co-operatives was the growing of rice, but some grew subsistence foods also, and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

In most instances the village worked as the unit of production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

In general Monday and Tuesday of each week were set aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, magically or mystically, quickly raise their status in all respects to that of Europeans". Orokaiva people have pointed out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

Chapter 2

Contact history and the development of cash cropping

121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these intersections which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

(a) Initial contact

177 The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

714 By 1907 the area was pacified, a road had been built from Buna
177 to the Yodda goldfields and regular markets along it supplied
178 carriers with food in exchange for tobacco, bottles and other new
[49] commodities. Shortly after, two cult movements appeared among the
[438] Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

[1] For a full description of these cults see Williams 1928.

not necessarily leaders in the old authority structure but often people with particular experience of white rule (e.g., policemen).[1] Both cults were suppressed by the Administration although the Taro cult persisted until 1928 and possibly reappeared in the Gona-Buna area in 1941 (Worsley 1957:124), concurrent with rumours of imminent Japanese landings.

The ending of inter-tribal skirmishing, which directly affected the social roles of the sexes, also extended the physical range of interactions open to individuals and resulted in the proliferation of hamlet groups, comprising single clan-branches, i.e. a fragmentation of the main villages. Administrative efforts in this period were directed towards countering this latter process and concentrating settlements along the roads to facilitate supervision, encouraging improved building styles (particularly the erection of houses on stilts above the ground) and establishing more ordered 'line' villages built around a central square.

(b) Commencement of cash cropping

From its beginnings the mainstay of government policy was the encouragement of indigenous cash cropping. Regulations introduced in 1894 and 1903 provided for compulsory plantings of economic trees, particularly coconuts, rubber and citrus, but few were exploited commercially. Under the Native Plantations Ordinance 1918 and the Native Plantations Ordinances 1925-52, twenty-six community plantations were established in the Orokaiva area with both government and villagers participating.[2] Cocoa, coffee, oil palm, cotton, tobacco and rice were all tried; however, owing to a fall in prices, all but coffee were abandoned. According to Crocombe (1964:16), there was no enthusiasm among the people for the scheme as they considered the cash returns inadequate: each man was required to work sixty full days per year and returns varied from less than $1 to $8 per year, which was well below the returns from working on European plantations at that time. Some 10,000 trees, predominantly coconut, were planted in 1914-15 in the Orokaiva area and by 1921 it was estimated that there were 46,404 coconut trees in the Northern Division and some 7,000 rubber trees (mostly in the Awala area). The planting of coffee commenced in 1923 and by 1936 there were

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1 Such a development may well also have been characterised by the building up of more extensive group solidarities. Burridge (1960:25) does suggest, however, that the Taro cult may have been a particular expression of a similar type of cult occurring in the pre-contact era.

2 Proceeds deriving from the sale of the crops were shared on a 50-50 basis. For a detailed treatment of these communal plantings see Crocombe 1964.

156 477 554 [614] [794] [631]

Community leadership

Three of the four entrepreneurs are eldest sons and two of them are heads of sub-clans. The third expects to be when the present holder, his father's younger brother, dies. All four have or had elective status in the community, in religious, political or economic institutions. Three of the four are or have been church councillors,[1] two have been local government councillors,[2] and three directors of the Orokaiva Coffee Growers' Co-operative. The extensive time these men give to community leadership (an average of 7.6 hours weekly) contrasts strongly with that of Inonda and Sivepe villagers (0.5 hours).

While the others seem to have been willing to accept leadership roles among villagers, D has declined nomination as a councillor and several other roles and has less contact with village society. This is perhaps due to his being a stranger to this area.

A, B and C claim to have gone to considerable trouble to encourage the people of surrounding villages to engage in cash-cropping. In B's case at least there is clear evidence that this is so. Apart from active encouragement, their enterprises could be expected to have had significant demonstration effects. The fact that villages adjacent to those of the two longest established entrepreneurs, A and B, have a higher number of trees per man than other villages in the census division supports this suggestion.

Demonstration effects, however, appear to be less in the entrepreneur's own village, where he is in all cases envied and resented by many. My impression from living among the Orokaiva is that the prestige of the entrepreneurs increases as one gets further away in a radius of five miles or so (perhaps ten in the case of B) and decreases again thereafter. A and B in particular often accommodate strangers on long journeys on foot, and B has for many years had a special house which is available to any foot traveller. Distant villagers, returning labourers, children going to and from boarding school and others from up to fifty miles away stay overnight at B's house. No charge is made, no gift expected or usually given. In fact B, who is widely acclaimed for his hospitality to strangers, usually supplies them with vegetable foods. [594]

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[1] Elected annually, usually one per village. A retired in favour of his eldest son and B retired when the refugees from the Mount Lamington villages (who had elected him) left their temporary settlement near B's coffee plot. He was asked by the village to be their church councillor but declined as he lived outside the village and the role of councillor ideally requires constant attendance in the village.

[2] Elected triennially. Each represents several villages. A retired owing to age. B was defeated.

628 Kohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepe people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro and Husou, while Ajoro mentioned Inonda and Hohota (see Map VIII).[A]

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepe would be: Sasembata, Garombi, Awala, Hamburata, Korogombata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. How these are not anything like the ten villages geographically closest to Sivepe. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepe village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepe informants had first or second degree consanguines in Kongohambo, and only one Sivepe girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective
[582] contacts remained confined to feasts, deaths and the settlement of quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
731 development occurring over the years under consideration; it will be traced in detail in a later chapter. The setting up of wards under the Higaturu Local Government Council led to further occasions
[194] for formal cooperation between villages belonging to the same ward.
[197] It was characteristic of both the church and the government council organizations that they divided the Sasembata district into areas with definite boundaries, each area comprising several villages. The church recognized two such divisions, the government council three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[2] It is beginning to have two kinds of effect: first, the strengthening of bonds between villages within the same ward or the same section of a mission parish (e.g., bonds between Sivepe and Isoge, which up to now have not been closely allied) and secondly, the loosening of bonds between villages divided by the boundaries which are now being defined (e.g., bonds between Sivepe and Kongohambo, hitherto closely allied, but now separated by administrative procedures).

628 These generalizations will be documented below; my task at
423 present is to consider contacts between Sivepe and closely allied
578 villages arising out of the eruption and relocation. Here inter-village cooperation was a far less significant factor than inter-village competition, especially for use of the land. One of the deep anxieties of the Orokaiva in the refugee camps and later in resettlement villages such as Irihambo, Awala, Kongohambo was that if the people did not return to their land, some others might decide to occupy it and it might be impossible to dislodge them. This was a very real danger because neither in 1951 nor at present is there in existence a land register from which the ownership of individual or village parcels may be unequivocally established. The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a supernatural taboo; interference with a boundary justifies a killing. It is far less clear, however, just what rights a person holds in a particular parcel. As this is a crucial issue in the whole history of Orokaiva resettlement, I should explain this in some detail.

423 Crocombe and Hogbin provide an excellent example of the
613 ambiguity of Orokaiva land rights. After wars with the Sangara, both the Andiriha and the Tandai'undi clans were driven from their villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the Tandai'undi had superior rights. At present, this land is used by Andiriha, and upon inquiring into the legal basis of tenure I was given the following explanation. Two daughters of the Tandai'undi owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst]

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepe and Isoge or Kendata than with Garoubi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepe are now expected to cooperate in both church and [178] local government council activities. This is definitely a somewhat novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

When the Sasembata mission station was built in 1952-1953, 797 all the villages contained in the parish collaborated. Miss White's 794 diaries show how this cooperation was organised. Miss White, who 629 was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garoubi and Isoge would finish the hospital ward, Sivepe and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials and in 1966, while I was in the field, the time had come to pull 628 it down and renew it. The Australian teacher in charge of the station was unable to organise this work. There was, however, a [759] Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garoubi, Sivepe, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

628 Similar cooperation occurred in other specific tasks such as the organising of a dance at Saiho hospital, the marking off of ward boundaries, etc. The groups cooperating in this manner had no history of multi-village economic organisation; this was an innovation. There was, however, a long history of military alliances, kinship and friendship links and feasting relations between contiguous villages. I collected the kindreds, up to two degrees removed, of [124] 31 Sivepe informants, recording the birth place of each member. I found that the list of natal villages included 76 situated more than one mile from the site of New Sivepe, the great majority being situated in the area within a three mile radius. But strictly speaking, these were not consanguineal links between villages as the consanguineal networks of the various families differed considerably in location. Table 9 shows just how individual these networks were but it also shows that there were 10 villages where more than 10% of Sivepe informants have consanguineal links: these are places with which relations have always been very close as periodic contact was maintained with all these consanguines; meeting them less than once a year would not be quite right. [794] Today, meetings are much more frequent, as they tend to occur at the Sunday church services.

Section 4: Other Contacts with the Waseta "Tribe"

While contacts with people from within the Sasembata district are far more frequent than contacts outside it, there are only few families who do not have some kindred, with whom they can trace connection in the patri- or matrilipe, resident outside the Sasembata district. Considering that this district comprises an area of no more than some 20-25 square miles, such connections will occasion no surprise. I was struck, in fact, by the relatively small number of these connections--a full statistical analysis of the kindreds collected has not yet been completed, so that I cannot give statistics. They were with a relatively small number of villages, almost all from the district Williams marked as belonging to the Waseta tribe. Even the connections with these few villages have special explanations: incidents of warfare explain the present links with the Isivita villages and with Togahou. The links with Soroputa and Agenahambo are explained by the resettlement of these two villages which previously were situated much closer to Sivepe--their land actually adjoins Sivepe land. The close link with Awala (three miles from Sivepe) also has a special explanation beyond [438] common clanship: Sivepe people were dependent upon Awala clay [323] for the manufacture of pottery, an essential commodity until after the second world war. I have listed a few more villages which are "Waseta" but not "Sasembata," such as Waseta, Koropata, Ilimo, but these are mentioned only once or twice.

A [See Cat. 116, p. 214--Analyst]

797 this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the [794] other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

731 I shall delay a general discussion on the Church until a later
797 Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

871 One feature that became established during the evacuation period
731 was regular schooling for the young. The extent to which the people
177 recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not [852] "ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

794 When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

794 organised contact. After each Sunday service, a meeting of the church council is held at the church, presided over by the pastor, at which the needs of the parish are discussed. The pastor may also call [431] meetings during the week. No payment is ever made for work done for the church, but the pastor has on occasion made a small distribution of tobacco, at which the people were very pleased. Much of the burden falls on the member of the church council for each of the villages. [623] While the after-service meetings at the church are open to all church members, the council has its own meetings and the member for the village has an especially close relationship with the church. It is he who calls together the people in the morning when building work is to be done, or who makes other announcements, in the usual way by standing in front of his house in the evening and speaking in the dark, heard by everyone in the houses.

614 This man belongs to the plant emblem group baptised in the early 613 1950's, but interestingly enough he did not, like most of the early 794 converts belong to the Jegase clan. Plant emblem groups (or lineages) are not necessarily segments of a clan and in this case the sasaha plant emblem group includes a few Seho people, who were baptised with the rest of their lineage. It was one of these Seho men who was chosen as church councillor, the choice being reportedly made by the [224] pastor himself. Shortly before my arrival in Sivepe, this man was given the office of hunting expert. Previous to this, every clan had had its own hunting expert, but now this church council member was the only one. The task of the hunting expert is the performance of magic prior to a collective hunt, decision of the time and place and the privilege of being the first man who enters the bush, together with his wife, for hunting. "What kind of magic does Dunstan perform?" I inquired. He invites the pastor down to the village and the pastor blesses the guns and other appurtenances of the hunt, while the old magic is no longer performed. In the neighbouring village of Sasembata, I found that this innovation had not been adopted.

794 In Inonda, all religious organisation was in the hands of the 184 transport driver and one-time councillor, who played the role of lay-preacher on Sundays, using as a chapel a building originally intended for the storage of coffee. Church was attended by the Christian half of the village but I saw no Christian activities apart from the weekly service. The mission teachers and the Anglican school were located at Hohota, three miles away from Inonda. Most of the modern organisation roles noted for Sivepe were, in fact, found at Inonda but every one of them was allocated to the same man, the transport driver. He acted as "committee;" he made the kind of speeches that were made in Sivepe by the councillor and the sanitary inspector (these functionaries very rarely came to Inonda); he was middleman for the mission; he was agricultural entrepreneur and his father was the feasting leader, leaving to him the day-to-day organisation of the feast given in June, 1967. The price for this far-reaching centralisation was a lack of participation in most of the activities by at least half the population, whereas participation was far more general at Sivepe.

654 After resettlement in Awala and other villages, the government
731 made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 In earlier chapters, I have already drawn attention to the
823 widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family [794] land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 Naturally, in the circumstances, people did not feel any pride
177 or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe [438] was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garambi which still [628] had its pigs. During the bargaining, a Garambi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Garambi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

575 [593] [626] [657] wife, effectively shaming the husband. Today's organisations are sponsored by the government as well as the mission. The government employs a female "welfare officer," attached to the Department of District Administration at Popondetta, who is charged with the organising and supervising of what are called women's clubs. These clubs, set up in villages, are expected to follow a set programme, designed by the welfare officer, aimed at improving village hygiene, housekeeping and craft work. The women are also encouraged to play basketball at club meetings. They learn to sew, bake scones, etc., make bark cloth for sale, are given talks on infant welfare and generally learn Australian ideas about home care. Clubs are encouraged to buy sewing machines, instructed in their use and care, shown how to cut patterns, how to launder, and so forth. Courses lasting two weeks are given periodically at the Higaturu Council building, to which a number of selected officers of local women's clubs are invited. Usually these are presidents and secretaries of clubs. They are taught the various skills to be inculcated and expected to pass on their knowledge in the village. The women are expected to persuade the men to build a meeting hall for the club. Money for the club is raised by regular dues, by the sale of bark cloth, and by the sale of cakes, scones and the like on club days. (The buying of ovens is also encouraged.) Inonda had such a club, built a club house in 1967 and had the use of a sewing machine. Kiorota had a club house, used not only by the women but also by the men when there were important visitors.

794 575 In the Sasembata district, the women's clubs became fused with their mission counterpart, the mother's union. The latter had existed from the early 1950's, and were accustomed to have prayer meetings, clean the church and the cemetery, sew for the hospital and carry out other church work usually allotted to women. The president of the mother's union was the pastor's wife, a woman of some ambition. For the convenience of the members of the mother's union, many of whom lived too faraway to attend regularly at the mission station, several branches were formed, in places such as Kendata and Puri, while the villages within easy reach (Sasembata, Sivepa, Carombi, Binduta, Kongohambo, Torogota) mostly attended the central branch. When the government founded the women's clubs, the territorial units covered by the clubs soon became identical with the areas covered by the branches of the mother's union. Furthermore, the club which included Sivepa and the mission station chose as its president the pastor's wife, as well as the same secretary, a young Sivepa woman. The two organisations thus became identical in territorial boundaries, largely identical in personnel and rather similar in some of their activities. To mention but one instance, it was natural for the club to use the mother's union sewing machine for the club sewing programme.

The membership of the mother's union, in Sivepa at least, was somewhat larger than the membership of the women's club. The younger women were all active in both. Once a month they went to mother's union, did the necessary church work, cooked a common meal, prayed

and sang hymns and gossiped. Once a week, or at least as many weeks as there was no obstacle to holding a meeting, they went to women's club, did some sewing, discussed club affairs and played basketball. The older women did not like the basketball and were not interested in the innovations that were talked about in the club. They only attended women's club on special occasions. There was a contribution of 2/- per month which was generally paid only by the younger women.

Shortly after our arrival, a conflict developed between the club and the school. The head teacher objected to the noise made by the women, who spent the mornings sewing in the clubhouse which was on the station and then played basketball on the school ground in the afternoon. He could not get the students to pay attention to the lessons on the women's club day--which at that time was regularly every Tuesday. He suggested the women should build a club house away from the station. The pastor agreed with this suggestion, much to the rage of his wife, who was club president.

The effect of this altercation was a plan to build the club house in Sivepe, the nearest village, and play basketball there. The Sivepe women were delighted, as this greatly increased their status in the club, not only vis-à-vis the other villages, but also vis-à-vis the mission women, hitherto the aristocrats. For the next two weeks after this, the women met very frequently, as the decision to build in Sivepe, though wholly agreeable to the pastor, was mortifying to his wife and jealously regarded by the women from the other villages. At these meetings it was less important what was discussed than by whom they were boycotted. The mission women continued to argue against the decision for a further fortnight, with several meetings failing through lack of attendance. Meanwhile, school boys carried the materials of the old club house from the station down to their village, and Sivepe men cleared a handsome site for the club-house and erected the posts.

The mission women now withdrew from the club and asked for their membership fees back, which they were given. It appeared that their quarrel was not so much with Sivepe but with the Sasembata village women. Most of the land used by mission teachers belonged to that village; the Sasembata women thought, with some justice, that the mission women were not sufficiently diligent in their garden work. It was customary for all school children to bring one taro to school each week and also each family brought some taro to Sunday service. This food was in part distributed among the mission teachers. The Sasembata women took the view that these gifts to teachers were necessitated only by the laziness of the teachers' wives. The latter countered this abuse with the argument I have already mentioned, viz. that it was necessary for coastal people to teach among the Orokaiva because the Orokaiva were too barbaric and ignorant to have teachers of their own.

The men soon lost interest in the building of the clubhouse. It was not easy to understand why they lost interest; when I asked them they pointed out that some of the houses in the New Sivepe had not

794 yet been completed (which was true) and that these ought to have
575 priority. The women then became impatient; after which they explained
578 to me that the women had talked to them insolently and they had told
628 them to build the house themselves (which was a male task; it would
[462] have been unthinkable that women would have dared to do it). The same men devoted most of the following two months on building the mission hospital, so that their explanation did not hold water. The most likely explanation is that the men felt disinclined to build a clubhouse that was clearly going to be a source of conflict between themselves, the mission and other villages, such as Sasembata. They probably stopped work mainly in order to see whether the conflict would blow over and when their own women started to importune them, lost no time in withdrawing. I base this explanation more on attitudes observed at the time than on explicit informants' statements which were very guarded at this early stage of my research. (All this happened in our first month in Sivepe.) Basketball and meetings meanwhile continued at Sivepe, and sewing continued quietly at the pastor's house. The club was busy making uniforms for the basketball team. The next stage of the transactions between the station and Sivepe was much more subtle.

535 About three months before our departure from Sivepe, a mission
[123] teacher told me that his wife intended to teach Sivepe women a coastal
[197] women's initiation dance called the kere. This, he suggested, would be in our honour. My wife at once expressed much interest in joining in this dance. Nothing happened, of course, during Lent but on April 1, the first week after Easter, the village fell dead silent early in the evening, everyone pretended to go to bed, the women slunk away somewhere and late at night all the women appeared dressed in white tapa cloths and tarpaulins, clearly impersonating spirits and performing a vigorous but most eerie dance, while all the men at first stayed indoors and the village remained otherwise in total silence.
[534] I even heard a flute, a highly sacred instrument which everybody continued to pretend was never played. The next evening the same performance was repeated; I then heard in conversations not intended for my ears that these dancers were the embahi (spirits). On the third day it was intimated to my wife that she might join. The "practises" (as they were now called) continued, though my wife never actually heard the flutes when she was dancing. After more than two months of almost daily practise, the kere was performed in public at the mission station, its character having been gradually transformed from a rite into a dramatic representation. Nonetheless, a careful observer could see elements of initiation ritual at all stages.

794 At all these practises, the mission teacher sat and watched
575 at the centre of the stage. His wife played the role of the teacher;
578 later, she asked an older woman, an expert from her natal village, to take over the leadership. The clearest sign of the continuing status battle was in the unending arguments on where the practises were to be held. Sivepe insisted they should be in the village but the station

794 575 578 women who had joined the group favoured another site: a small settlement very close to Sivepe and the mission station and affiliated with Sasembata village. They never suggested the "practises" should be held in the station. Indeed, although they proceeded night after night, usually from about 10:00 p.m. until well after midnight, the head teacher did not know about them almost until the end, until he drove home late one night and heard something (he did not know what) from the road. Some nights there was no practise because the two sides could not agree on a site. The men seemed to be somewhat irritated by the constant presence of a mission teacher in the village, in a conspicuous role of authority, over their own women. They countered by complaints about the "noise" which made it impossible for them to sleep. This made it easier for the Sivepe women to agree to practise in the next settlement, though they also practised near the house of one of the village dancing leaders who lived away from the complaintants and was sympathetic to the kere. In the end, the usual split did occur: the mission women did not actually dance with the group from Sivepe and Sasembata village, but pulled out and formed a second kere party together with Kongohambo women, under the leadership of the deacon's wife, who also knew this dance. Both parties performed in the final performance at the mission station.

These events definitely show the mission station as a cultural force, quite independently of the mission teachers' ecclesiastical or schoolmasterly role. Sivepe was willing to offer the mission station a certain amount of compliance, in return for the valued knowledge that was being supplied, but fought--with success--against the mission station's attempt to use to the occasion to place the village in a position of socio-political subservience.

Section 3: The Mission and Traditional Religion

771 776 177 The Orokaiva attitude to Christianity is a complex subject which I intend to treat more fully elsewhere and falls somewhat outside the concern of our present project. It is very clear that some basic notion of Christian montheism have not been accepted by the Orokaiva, such as for instance the notion of God's omnipotence. Orokaiva Christians believe in the existence of God and in His infinite power, but He is viewed as an addition to other powers, who is hostile to some of these other powers, but not necessarily to others. I was told that a person ought to give up black magic after baptism, but informants dismissed my suggestion that Christianity was also opposed to curing magic. No curing magician ever ceased practising when he was baptised.

177 [788] [775] I have referred several times to the tendency to place ancient ritual under the protection, so to speak, of the new God. Rituals connected with the taro cycle were performed at Christmas and Eastertime, perferably on the mission station. While the beliefs about the ghosts

622 624 orderly. This man, like the "committee" in Sivepe, was responsible for the disciplinary aspects of local government--law and order, hygiene, organisation of working parties. The giving of such orders was not considered "fitting" for the councillor who kept aloof and worked through the "committee" as intermediary while still making the basic decisions. This dual control was convenient when, for instance, the councillor wanted old houses rebuilt and set along a straight line determined by him, while the people were not very enthusiastic. It never became clear just whose authority was treated lightly; no doubt the leaders are waiting for some excuse, such as a feast, for pressing the urgency of renovation. The councillor was, above all, the ideologist for the New Day.

794 474 454 452 Two other formal organisations in Hohorita pursued ends likewise related to development. One of them was a church committee similar to the one at Sasembata; the second was a cooperative known as "Village Improvement" (in English) which was raising money for a purpose yet to be determined. It might be a trade store or a truck. By the time I left, this committee had accumulated almost $1,000, and the purpose then had again been changed: the intention became to invest the money under a government-sponsored scheme for village "Savings and Loan" societies which follow the principle of credit unions.

474 452 The composition of this committee was interesting: it did not include the councillor, but consisted of the head teacher at Hohorita, and a priest and a public servant both resident in Popondetta. All three belonged to the Hvreopa clan but all three were, by residence and profession, somewhat remote from the village way of life. A number of the villagers who contributed expressed for thisscheme the kind of romantic enthusiasm characteristic of many Papuan cooperative movements; it was seen as a means to raise the Papuan to the same level of power as the European. I was told that loans would be granted only for equipment of permanent value--sewing machines, house building materials, lawnmovers, coffee machines and a vague and ominous category described as "special things." There were 66 members.

521 It struck me that at Hohorita, in contrast to other places, individuals and groups were keen to engage me in protracted discussions on ideological and economic matters. It was evident that this was not a mere show and that discussions of the same sort were frequent also in my absence. It was at Hohorita that I first learned, and in the clearest terms, Orokaiva views on race relations, on the significance of the councils and cash cropping, on Africa, on the Americans. Participants in the discussion were often the educated minority which seemed to set the tone for social thought: the ex-mission teachers, ex-medical orderlies, ex-drivers, ex-shopkeepers, etc.--a total of 20 men who had to some extent mastered some Western skilled occupation, and who had chosen to return to their own village. Very often it was the chance of cash cropping that had brought them back home, for they knew that they could thus get financial security and a good life. Some

mingled more freely as a result of travel on the government roads and trails (which they have to keep in order), trading, Mission and official gatherings, and other new opportunities for interpersonal relations. One special feature of Orokaiva life in modern times is the annual burning-off of grasslands by hunting parties in order to get wild game. This has probably involved the assembly of larger groups and is one of the few activities which could induce intersettlement co-operation. The writer sensed the parallel of the crude local fires set for garden clearing and the general burning-off of grasslands to the major burning and blackening in the wake of the volcano—doubtless a mighty job of clearing to the Orokaiva eye.

Within the limits that brief characterizations of personality norms can be valid, observers seem to agree that the Orokaiva as individuals have traits congruent with the social structure that favor individuality and mobility. Even the casual visitor gets a sense of independence, alertness, self-reliance, "strong talking," dignity, restraint, imperturbability at meeting the unexpected event, and high-tension interpersonal behavior in general. This is in particularly striking contrast to such an elaborately structured society as that of Samoa, where the writer had been working shortly before. In informal groups seen around the camps and waiting at airfields for transport, women and children, far from being in the background, kept up a busy verbal exchange with the men. The Administration has considered the Orokaiva territory as perhaps the best recruiting ground for its Royal Papuan Constabulary on the basis of these personality characteristics, including ability to meet crisis conditions such as patrols may encounter.

The Orokaiva religious history is also particularly interesting here. Their traditional faith, Williams says, though in many respects vague and locally variable, concerned itself "primarily with the spirits of the dead" and their influence on the welfare of the living. Death was appraised with particular realism, although it was considered ultimately as the result of supernatural causes. Magic had a consistent place. Orokaiva country, however, has been swept in modern times by a series of new cults indicative of religious adaptability in the face of fresh experience. First to come into prominence was the *Baigona*, or "snake cult" of 1911-12, succeeded from 1914 on by the so-called "Taro cult" which in turn had undergone a series of local reformulations by the time Williams reported on it in 1924.[7] Central features of the Taro cult were association of successful taro cultivation with the ancestral spirits, approached by way of a "shaking-fit" technique of revelation, together with somewhat new types of public ritual and symbols, including fragmentary elements from Christianity. Later Belshaw and others reported that "Christian Co-operative Evangelist" societies, which were developed by the Anglican Mission among some Orokaiva converts for the cooperative growing of rice and other crops, tended to assume a somewhat parallel and absorbing mystical agriculture context. Rumors spread of "an order from the King (of England) that co-operatives

7. *Orokaiva Magic*, Part I; see also Chinnery, E. W. P. and Haddon, A. C., "Five New Religious Cults in British New Guinea," *Hibbert Journal*, 15, 3 pp. 448-463 (1917). Materials are also found in the official reports of the time.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

significance is assigned to this distinction for the purpose of stating some ideology.

Barthes (1964a) points out that in a connotative system the level of expression is "rhetoric" and the level of content is "ideology." This seems to describe the pattern accurately enough. The present explanation may be reduced to a rhetoric or moralistic vilification expressing a tribalist Waseta ideology. The rhetorical aspect is clear because in actual fact both tribes hunted on the mountain though only one was hit seriously by the disaster.

I now turn to a second explanation which deals with Orokaiva, though we have very few data on its currency among them. The explanation is contained in a report (undated but probably written shortly after the eruption) from Fred Kleekham, district agricultural officer, Popondetta, in which he describes a mission-sponsored "Christian Cooperative." This cooperative flourished among the Yega at that time where, in Kleekham's opinion, it "did indeed become a cult." Kleekham reports that members of the cult refused to have their rice hulled or bought by the government and that this was due to "some mystical element . . . involved in rice marketing." He continues:

> I think that more influential than the thought that Europeans would leave Papua as a result of cooperatives was the belief that the formation of and participation in cooperatives would—magically or mystically—in short time raise the native to the status of the European in all respects. . . . I am sure that this movement owed much to hanging of Orokaivas judged responsible for the murder of missionaries and the former officer in charge of the coffee project.
>
> It is interesting to recall that one group was prepared to do *anything* under European guidance to get money. Their message was "show us how to get the money to buy the guns." Later the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings.

There is no evidence that this explanation of the disaster was ever held by any Orokaiva. It is more than probable that this explanation is that of the Yega, who are traditional exchange partners of the Orokaiva and enemies of the Sangara. It is among the Yega that Kleekham worked, and I am inclined to believe that the Yega widely accepted the views he reported. This would fit the facts as we know them. Certainly we should not expect the Orokaiva to explain the disaster by a theory which accounts only for

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

the death of the 45 Europeans on the mountain but not at all for the death of 4,000 Orokaiva and the destruction of hundreds of villages. It is far easier to understand such an explanation coming from the Yega, traditional enemies of the Sangara tribe, whose own losses through the disaster were very small. There is indeed no reason why the Yega should have been grief-stricken by the eruption at all. They were involved in an anti-European cult according to which the death of the administration personnel at Higaturu was thought nothing less than a divine blessing, while the misfortunes of the Sangara may well have been a further source of satisfaction. The Sangara survivors, who were quartered in an evacuation camp in Yega territory from February to April 1951, felt most uncomfortable there and very frightened that they too would be killed off by their old enemies through poisoning, sorcery, or other mischief.

The data do not enable us to say with certainty whether or not, in the Yega explanation, the eruption was actually caused by the anger of Sumbiripa. Benson (1955a, 1955b) describes the general atmosphere among the Yega immediately after the eruption, and from his account one gathers that the Yega, like the Orokaiva traditionalists, believed Sumbiripa was responsible, though he was credited with somewhat different motives. Kleckham is undoubtedly right that the public execution of the so-called collaborators, conducted by the Australian army in a spectacular and rather gruesome manner, caused much resentment among the various tribes of the Northern District. The Yega cooperatives of the late 1940s, described in some detail by Dakeyne (1966) and discussed in Schwimmer (1969:86–89), were led by two Anglican clergymen, Benson and Clint. They must therefore have believed that power would come to them through the intervention of the Christian God. Though the precise significance they attached to the eruption is not known, the context suggests that they must have regarded it as a sign that supernatural forces were working in their favor or at any rate against their enemies.

The metalanguage used in the Yega explanation is that of a millenarian cooperative cult, arising in response to what was regarded as oppression and commercial exploitation. The eruption established a rule that supernatural agencies punish white people who hang Papuans. In justification of the rule, there was again cogent empirical evidence. Most of the forty-five Australian victims of the

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sumbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

construct a higher-level system which accounts for all the explanations taken together.

Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

None of these reasons would have sufficed to kill the movement had there been, in the 1950s, a strong opposition to the administration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

171 of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

121 The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

461 Our discussion of the culture hero Jesus Christ was necessarily
177 incomplete. For he did not institute merely payment for labour –
a real gift to man but, as we have seen, somewhat limited in scope,
●794 but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
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132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening
[797] was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

105 [161] [619] [423] [614] The Orokaiva people number roughly 26,000 and are divided into about twelve tribes. The tribes are very loose units and recognise no single leader and before European contact, warfare within the tribe was not uncommon. ...there are no land rights at a tribal level. Each tribe is divided into a number of named clans. A clan is seldom localised, and usually it is divided into a number of sub-clans which are dispersed over various parts of the tribal territory. Each sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

worked for eight. This became an important basis for resentment and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of dynamic growth in the co-operative movement in the district. He had a deep interest in co-operatives, and had been associated in Australia with the Christian Socialist Movement. He was specifically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural Officer, Mr Cockshott. In mid-May he commenced a weekly co-operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the co-operative movement was regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

In August 1949 the first four co-operatives in the Territory were registered.[1] They were, in order: Yega, Gona, Garara and

[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

563 More important was the encouragement given by the Chinese
439 store to the development of Papuan-owned trade stores in the villages.
443 Village trade stores have existed in the Northern District for a long time but traditionally they were built by planters who sought extra income by selling trade goods to their employees and villagers in the vicinity. The shopkeeper was a closely-supervised Papuan on wages. In 1966, I counted some 20 of these stores between Inonda and Sivepa. Fourteen of these were owned by various planters, but the other six were of the new type promoted by the Chinese trader. Here the owner of the store was Orokaiva and the Chinese supplied trade goods and transport, if needed, at some extra cost.

During the year I was in the field, it became the ambition of many villages to have their own trade store. In the Sasembata [554] area alone, at least four new ones were started. The arguments in favour of them were: that the village store might as well have the profits instead of these all going to the Europeans; that one would not need to walk so far to buy goods; that the village store would sell goods at all hours, instead of only during the day. There was a strong ideological motive as well, to be discussed later. The stores were an avenue, above all, to greater power. Inonda was served by a planter-owned trade store two miles from the village.

Hence, the role of the Chinese in the Northern District was a rather interesting one. It was they who opened to the Orokaiva the opportunity of trading. The Chinese, indeed, gave wholesale discounts to all these small shops and treated the traders without condescension. Every few weeks, the Chinese truck delivered supplies to the shops in the Sasembata area. It was then, too, that it collected coffee. The storekeepers also visited Popondetta to collect the supplies when they could, occasionally with the clandestine help of a government driver.

Section 8: Contact With the "Taupa"

177 In the previous sections I have sketched the network of
366 contacts characteristic of Sivepa village at the time of the eruption
368 and the present, and compared these with Inonda. The comparison cannot usefully be carried too far, as Inonda is much closer to Popondetta than Sivepa, while the small size of Inonda and its longer distance from even a minor educational, and medical centre and from a mission station introduces ecological elements reducing cultural contact. A general difference between the two places, resulting from these factors, is that the locale of contact for the people of Sivepa is most often the village, or a place only a mile or so from the village (the mission station, or Garoubi, or Sasembata village), the locale of contact for the Inonda people is 177 more often Popondetta. Another difference is that whereas Sivepa,
795

177 in its attitude to culture contact, is somewhat homogeneous, Inonda
795 is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

177 The changes which have occurred in the pattern of outside
181 contacts in Sivepa between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[199] than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepa.

177 Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white men's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier,
[191] an interpreter is, at the very least, required as intermediary between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepa in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepa the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

292 The head-dresses (*di*) and ornaments (*hambo*) are themselves artistic
531 creations. A full feather head-dress is composed of some two dozen strands of feathers, each strand consisting of a dozen or more feathers. The strands are carefully made, sometimes from artistically shaped and trimmed feathers, while short down of striking colours may be tied to the tips of feathers. The order and arrangement of the strands making up the headdress is to some extent determined by custom but mainly by the artistic sense of the decorator, who
301 may spend days working out the precise effect he wants. Similarly the *hambo*
531 are often composed of a variety of objects – dog's teeth, shells, pieces of crocodile skin, a special kind of banana seed, for instance. The decorator aims at a pleasing design but is always aware of the effect of the total object as body
[778] decoration in relation to the skin, face and body of the wearer. While the objects themselves undoubtedly have magical significance, and much might be discovered about the symbolism of *di* and *hambo*, my informants were far more interested in talking to me about the aesthetics rather than the occult significance of these decorations. I surmise that the magical efficacy is actually thought to inhere in the beauty of these objects rather than in the specific qualities of component parts. Women are as lavishly decorated as men. Though some *hambo* are reserved for males only and others are characteristically female, decorations are usually interchangeable between the sexes.

796 *Music, Dance and Song.* Today the great occasions when body decoration is
533 performed mainly coincide with Christian festivals – Christmas, Easter, and
535 name days of saints. But these dates tend to be close to the festive periods in the traditional Orokaiva calendar. For instance, Easter occurs around the beginning of the traditional feasting season, while Christmas is close to the rituals performed to stimulate the filling out of the taro tubers planted in the period before the rains. It is on these great occasions that the major dance cycles are performed, accompanied by entirely traditional songs and drum music. But 'practising' for these performances proceeds for months before and after Christmas, and again between Easter and the end of June. In Lent, all this is strictly prohibited, for reasons that again go back to taro magic. At any time of the year but this, one hears almost every able-bodied male in the village, from the age of two upwards, practising the dance, with or without the accompaniment of songs, while every village has its original poets who compose new songs every year. Dance 'practices' occur rather frequently, about four times a week in the two months or so before a performance. They tend to start in the early evening and continue until after midnight. Some of the dancers wear a few decorations when practising. But these 'practices' occur only if a large group can be mustered.

535 The Orokaiva mostly dance in pairs one behind the other, forming double file. The pairs always consist of persons of the same sex, men or women, who form more or less permanent partnerships. The dances themselves are described in some detail by Williams (1930: Ch. XIV), whose useful account would be even more valuable if he had not attempted to make up some kind of synthesis of the dance and drama of three somewhat different tribes (Orokaiva, Aiga, Binandere).

In Sivepe there were two dance leaders, one from each of the major clans, who danced as partners. They had the final say about the programme; their body

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 796 763 628 It is emphasised even more strongly by the curious symbolism of the ritual death of the feast-giver. Once the food is collected and heaped up on a platform in the village, a message is sent to the guests. This message takes the form (in Hohorita) of a report that X (the giver of the feast) has a big sickness, and that 'he died last night' or that he 'will die today' or 'will die tomorrow'. The message is made to sound realistic: 'a tree was cut and hit him on the head; he is nearly dead.' One informant told me that he was at first actually deceived by it.

The effect of the message is to oblige the guests to interrupt whatever they are doing and come at once, as they would in the case of a death. But it also has a clear symbolic significance in that it equates the feast-giver with the victims to be immolated at the feast. This notion is found in other Papuan cultures, e.g. the Kiwai, who told Landtman that men actually die shortly after they have given a feast (1927: Ch. XXIV). A feast, in any event, signifies the entrance to the world of death and the ancestors.

574 796 628 At a feast two totally different types of food distribution take place. Cooked vegetables and meat are handed to the guests by the women of the host group in front of their private houses, and raw vegetables and meat are hurled at the guests by the men standing on platforms in the public area of the village. The women serving the meal behave with the ordinary propriety of Papuan hostesses, whereas the men, though actually rather careful in apportioning the tied heaps of taro and the joints of pig meat in accordance with the prominence of each group and group leader, put on prankish, irresponsible, abandoned, even insulting acts, and start meat fights at which the blood runs over the bodies of the recipients.

[231] The pigs used to be slaughtered ceremonially, 'a number of pigs being set in a row and struck simultaneously' with a spear (Williams 1930:61). They are butchered on a platform, the joints being invariably the same as those into which the body of Totoima was cut up. The giver of the feast enacts a ritual for the first-born sons of each family, passing them under his legs and then allowing them to eat of the heart and innards of at least one pig which are placed, still dripping with blood, inside the feast house. It is stipulated that the pig from which these parts are taken has to be killed by a 'father or brother' of the first-born and that the organs have to be extracted by the killer. This ritual, performed in Hohorita in 1966, is a fairly precise re-enactment of Totoima's murder of his son. It emphasises the identification of the feast-givers with Totoima. Although this ritual does not directly involve the guests, it can be performed only in the presence of guests, a curious fact that is adequately explained by the theoretical argument I presented above (Section 5).

796 574 782 The evidence given in the last few pages indicates that Orokaiva pig sacrifice is a form of communion with primeval beings. Certainly the men, after a ceremonial preparation of several months, have reached a psychological state of identification with the ancestors at the moment of sacrifice. There are no professional sacrificers among the Orokaiva, but all the men involved in the feast have, by the ritual exercises preceding the feast, developed *rapport* with the sacred world. Prior to sacrifice, the pigs are offered up to the clan ancestor by the calling out of the clan name. The fact that they are killed (or sacrificed) at all distinguishes the feast from an ordinary economic transaction, where the pig would serve as 'payment' for some gift previously received or a service rendered.

[769] [614]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [842] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

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8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepa people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [796] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

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the nuts to the drier. The various stages of processing took up 12.4 man-hours and 7.5 man-hours were spent in bagging and selling the 75 lbs of copra. The entrepreneur sold the copra to the Motu Native Co-operative Society at Oro Bay and by getting a lift there and back he spent only 4.4 hours on what would have been a 10-hour journey by foot. The total input of labour on the second batch of copra was 30.7 man-hours and the total return was $2.32, or under 8c per man-hour. This return disregards establishment and maintenance costs; however, as the palms used had been planted for subsistence purposes and maintenance is rare, the additional costs were negligible. They would only become significant if people planted large numbers of trees specifically for copra. This was the intention of several men. As is shown on pp.292-3, the return to labour in copra production is higher than the normal return from casual labouring and during 1965, after the survey had ended, copra was made regularly by the villagers, including the four men who had obtained work in Popondetta. Assuming that the efficiency of harvesting and processing increased with experience, it seems likely that the cash returns also increased during 1965.

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(ii) Other activities. Involvement with the external agencies takes an average of 3.2 hours per person per week. Most of this time is spent by women in cleaning the village area, defined as 'council work', which also includes a total of 42.5 hours spent by villagers in the first week paying taxes to the council. Church services occupy 0.9 hours a week; the entrepreneur holds a half-hour weekly service in the chapel and sometimes people go to larger services at Ijika church, particularly for major church festivals and confirmation ceremonies. People from the neighbouring villages of Mosou and Hahemo often attend the chapel services, which are also a social occasion, with people in their best clothes and even gambling afterwards. Perhaps mainly for this reason, non-Christians occasionally attend the services as 'hearers' (in the mission terminology). Little time is spent on purchasing goods in trade stores. The most regularly used stores are the one in the village, those at Ijika and the settlement blocks (which are about one hour's walk from Inonda), and those in Popondetta - particularly Oro Ltd's store and stores owned by Chinese - about 2.75 hour's walk away. Despite the distance to Popondetta, it is frequently visited, often by getting a lift from a passing truck (or, during the survey, from the researchers). Little time was spent in meetings: 57.6 man-hours were spent on the day of polling for the House of Assembly and most of the rest was expended by the entrepreneur in discussions with administrative and agricultural personnel in Popondetta. In addition, one woman attended the Hohota Women's Club meetings during period I before the club ceased functioning.

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Social obligations involve individuals for an average of 4.2 hours per week. During 1964 in Inonda, only 0.2 hours per week (76 hours in all) were related to life crises and these were almost

entirely mourning and funeral feasts. The bulk of the time is evenly divided between more or less formal social occasions and visits to kin and friends. The formal occasions include traditional feasts to mark the end of a dispute, to distribute the first fruits of a garden planted with the help of others, to mark the birth of a first child and to give or receive returns for feasts held previously. They also include non-traditional celebrations such as parties to mark birthdays, the opening of a new school and the saint's day of the local church. Such occasions usually occupy at least half a day and continue until midnight or dawn, whereas visits, as recorded here, are generally of only a few hours' duration. Visits may be made simply to see a friend or kinsman or they may be specifically to make or receive a gift, to return a borrowed article such as a gun, lamp or sago-beater or to discuss matters of common concern such as a projected feast. Visits occurred more during periods II and III but feasts and other formal occasions occupied more time during the latter part of the wet season, when they amounted to 3.1 hours per person per week compared with 0.3 hours per week in the dry and 1.9 hours per week at the beginning of the wet.

Among other activities, the most frequent include seeking employment in Popondetta, journeys impeded by flooded streams or rain and meeting kin or friends returning from visits. The time devoted to them varies greatly from week to week. For instance, after the road-building work near the village ceased early in 1964, little time was spent in gambling or seeking paid work.

The time shown in Table 7:3 as occupied by sickness represents visits to the aid post for personal sickness, care of the sick and attendance at the fortnightly infant welfare clinic.[1] As noted, the incidence of sickness tends to be greater during wet weather when malaria and epidemics of influenza may occur.[2]

Individuals devote a total of 10.5 hours per week to non-productive activities. However, the distinction between these and the productive activities is not clear cut. For instance, part of the labour input in gardening may be designed to ensure a surplus of certain foodstuffs to meet specific social obligations. Similarly, visits to a kinsman may be undertaken in order to organise production and other aspects of a future feast, to assist in time of need or to make or receive a gift of food.

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[1] In addition to this time, individuals were inactive through sickness for an average of half a day a week (see Tables 7:1 and 7:2).

[2] During 1964 there were two influenza epidemics, in April and December.

166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold sipere (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. [796] A closely related activity is church attendance, which occupies over an hour a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed 437 oaisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more 574 specifically to ceremonial distributions and feasts organised by 431 the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and [578] hostile nature made in connection with unresolved disputes such as [574] encroachment on land, or the stealing and unauthorised killing of [614] pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, 572 but not normally reciprocated, is known as umbare. Such gifts are 574

[1] See p.26 for a description of the circumstances under which feasts are arranged.

A, [See Category 574, p. 26--Analyst]

apply only to activities which are traditional or local. They do not apply with the same intensity to wage labour outside the village.(1) If major increases in cash cropping were to eventuate the amount of time now spent in festivities would need to be reduced or, alternatively, bought foods would need to be substituted for garden crops at feast times.

Other limiting factors

Income: Past experience has made people cautious about the prospects for their present cash crops. They are aware of the failure of the attempt to establish oil palms as a cash crop in the 1920's, of the abortive sugar project of the early 1930's, of the compulsory planting of coffee in the same decade and the subsequent collapse of the coffee market with the outbreak of war, and of the introduction and failure of rice cultivation in 1948-49. Some are aware too of the collapse of the peanut market within two years of the introduction of peanuts as a plantation crop in 1957. It was not, however, tried as a village crop on any significant scale. Though the people are not aware of the precarious state of the world market for coffee and cocoa today, they are aware of the price decreases over recent years.

Income from cash crops is not only uncertain, it is quite small and the people derive much less income from their coffee than they expected. This is due in part to unrealistic expectations, but also to decreases in price between the time of planting and the present,(2) and to inadequate knowledge of coffee husbandry. In the village context it is unlikely that the average man could, after meeting his family's subsistence needs and social commitments, clear and maintain more than two and a

(1) We are nevertheless informed by many Orokaiva people that the number and duration of traditional ceremonies and the number of people participating in them have all decreased markedly during recent years. They have been replaced to some extent by church festivals and sports but these activities are said to take much less time. This view is confirmed by comparing the social activities of today with those described by Williams, 1928 and 1930. The period of mourning after death has in particular been reduced and now involves fewer people.

(2) The cash price per pound paid to the grower was 2/- in 1959, 1/6 in the early part of 1960 and 1/2 in the later part, and 1/- in 1961-2. The price at present being paid is 11½d. per lb.

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepa, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepa, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepa,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepa. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (via Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepa informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepa for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepa knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepa people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT

(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages. 648 657 491

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12] 871 872 797 [191]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the 657

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

971 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditiopal lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 Christ and perhaps other supreme sources of which they have no knowledge, but
657 these ultimate sources mostly seem inaccessible to the Orokaiva; the people
[789] know their information to be poor and unreliable. Nonetheless, as the councillor from Hohorita remarked, it has been found by experience that the gifts deriving from the government have often been good ones. The relationship is therefore worth maintaining as it may produce further valuable gifts in the future. (This widely held opinion, incidentally, is the bane of Papuan progressives, who are pressing for immediate independence of the Territory from Australian rule).

Although, in an attempt to make my meaning clear, I have spoken of the magic of 'development', it is important to point out that the term 'development' has not been borrowed, to my knowledge, in Orokaiva speech. The Orokaiva term is *iji eha* (the new day), a phrase occurring, for instance, in the passage quoted from Councillor Ase's address. The *iji eha* has come about, as we have seen, as the result of the gifts of a new *dema*, Jesus Christ. One of these gifts was a permanent peace, to replace the permanent state of *isoro* of earlier days. But this gift was accompanied by new commandments. Councillor Ase emphasised the casual connection between the gift and the commandments: 'As a new day has now arrived (*oroho evi iji eha avo eto*,), I tell you to be united.' Like *isoro*, so the *iji eha* requires unity, but for the sake of struggles of a different kind: the building of a new village, the growing of coffee and rubber, the support of school education. The commandments of the *iji eha* are in effect community development.

177 It may thus be said without hyperbole that community development among
657 the Orokaiva has a mythological charter – namely, the Christian religion as the
●797 Orokaiva understand it. It acts as a mediating element between the Orokaiva and the European power-bearers: it is the magic whereby a relation of social exchange may be established between the former and the latter and whereby the Orokaiva may eventually become the equals of the white man in wealth and power.

177 But the second mediating element in this relationship is the councillors,
657 through whom the government's information must pass to reach the people.
623 They do not play the role of leaders but of mediators in a rather limited sense. In their contact with the government (mainly confined to contact with the advisory officer to the council), they receive information and hear council decisions in the formulation of which they generally have no part. The flow of information tends to be from the government to the councillors rather than in the reverse direction. This one-sidedness suits both parties, but especially the councillors, who gain little but may lose much by adding to the government's knowledge. At the village level, the councillor tends to become the chief mouthpiece of the *iji eha*. He is expected to report faithfully, and in detail, what he has heard from the government. His advice will be asked on matters related to council activities, but most of the time it is the councillor himself who takes the initiative and harangues the villagers. He does not expect all his advice to be accepted; he may even have private doubts about some of what he is
[191] transmitting. A Sivepe ex-councillor even had the habit of reporting on all council matters in Motu, a *lingua franca* used at council meetings because the advisory officer does not know Orokaiva. Most Sivepe people understand some
[554] Motu. By speaking in Motu to his fellow-villagers, the councillor built up his own

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

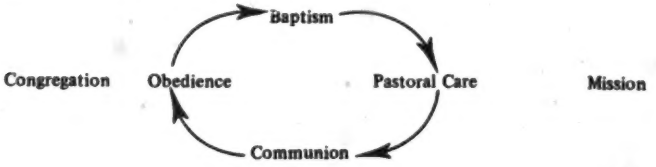
status while at the same time establishing some distance between his official performance and his private self. Even when a councillor does not resort to so extreme a device, his role is a highly formalised one, as the values underlying his message are very strange to him. The *iji eha*, as communicated at the council meeting, is almost outside his mental grasp. He has heard the details but cannot see the pattern. (The council meetings are not suited to the communication of the complex patterns of Western civilisation.) Fortunately his audience is usually warm and sympathetic to his message and shares with him the mood, the 'feeling' of the *iji eha*, if little else.

4. *The New Day, the Mission and Divine Retribution*

Relationships with the mission in the Northern District have usually been of two main types. When a mission station was first established, exchange relations between Orokaiva and the station began immediately. The mission offered schooling, medical services and largesse of various sorts. The Orokaiva offered land and labour. These were direct exchanges requiring no mediating elements. The mission was usually in no great hurry to begin baptising converts, preferring to let interested persons rise gradually from the status of hearer to catechist and conferring baptism some years later. Although coastal stations were established around the turn of the century, it was only after the Second World War, when a considerable number of stations and outstations were established inland, that the majority of Orokaiva came within reach of mission influence. The Sasembata station[5] serving Sivepe was not opened until 1945 and had no baptisms until 1953. The bulk of the population of that village was converted between 1953 and 1964.

It was then that the second, and more complex, phase of the relationship started. In the first phase there had been a great deal of contact between people and mission station, especially because of the educational services that were offered, but it was only in the second phase that these contacts became religiously significant. We may express the emerging relationship in the following diagram:

MODEL 8



Although this exchange cycle seems, on the surface, to represent more or less the relationship between any Christian and his Church, it seems arbitrary to select from the complex set of mediating elements enriching the fullness of such a relationship as commonly understood just these two sacraments, important as they are. It is only in the light of the Orokaiva understanding of the Church that

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
[778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

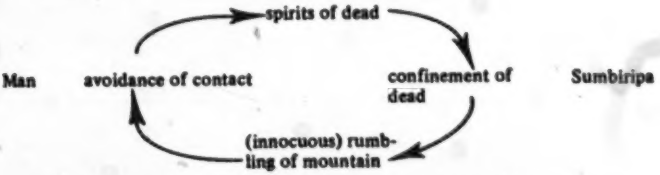
Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

S: Schwimmer , E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

784 social exchange relationship in which the Orokaiva thought they had defaulted.
823 In the case of Sumbiripa, this relationship was a rather special one as Sumbiripa's
795 gift is the safe confinement of the dead, whereas man's gift is avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa, whereas Sumbiripa mediates by emitting his usually innocuous rumbling. Before 1951, Sumbiripa had never erupted in living memory. We may express this in the following diagram:

MODEL 9



One theory of the eruption was that man had broken the exchange relationship by hunting on the mountain with guns. This disturbance angered Sumbiripa so that instead of innocuous rumbling he emitted the full blast of his immense and disastrous fury. The effect of breaking the exchange relationship with the Church was thought to be disastrous in precisely the same way. Just as the rumbling of the mountain suddenly became lethal instead of benevolent, so the 'communion' offered by the Church suddenly turned negative, dispensing retributive justice instead of mercy. Similarly, default in a social exchange relationship between human beings may lead the wronged person to give Alter misfortunes and diseases through sorcery, instead of the benefits he would otherwise bestow. If a relationship is broken, the wronged partner may respond by invoking negative mediating elements to obtain redress.

823 This dangerous trend may be reversed by expressing repentance, and by
797 receiving forgiveness (see models 1 and 3).[A] Subsequently, the offender will be more careful, if he is prudent, to stop the relationship from breaking down. Thus, after the eruption, the Orokaiva became more careful to carry out development activity (model 7)[B] and seek baptism (model 8).[C] The fact that the Anglican Mission denied that God had been angry would in no way diminish their solicitude, as such denials are always issued by offended exchange partners as part of the ritual of showing their forgiveness. Detailed empirical evidence given elsewhere (Schwimmer 1969) in fact shows that the eruption speeded up the development of the *iji eha* ideology among the Orokaiva. It would be wrong, however, to suppose that the supernatural fear propelling the Orokaiva towards development and baptism was due to a cruel deception by the mission or to irrational self-deception on the part of the people. It may equally well be regarded as a case of rational choice. It is not at all irrelevant to emphasise that development and baptism, in fact the whole *iji eha* ideology, was a sensible direction for the Orokaiva to take. The explanation of the disaster which they adopted was not a blind reaction to external vicissitude but rather the strategic reinforcement of a mythical charter for institutions mediating a valuable

A [See Category 829, pp. 58-9--Analyst]
B [See Category 657, p.75--Analyst]
C [See Category 797, p. 77--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

[p.82 is blank]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

5: Schwimmer . E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*sivo*). A man

Community rice and cocoa projects

797 In 1948, the Christian Co-operative Movement was formed by Father Clint of the Anglican Mission at Gona. The movement spread spontaneously throughout the Orokaiva country, though most of the co-operatives were only nominally 474 linked to the mission.(1) The main activity of the co-operatives [241] was the growing of rice, but some grew subsistence foods also, [258] and others made copra. Although the movement was referred to as a co-operative, its agricultural activities were in most cases communal: all participants were supposed to work at the same time and to undertake whatever work was allotted to them by the group leaders, and the benefits derived were to have been shared equally. Moreover, at least some villages required all resident adult males to participate in the scheme.

621 In most instances the village worked as the unit of [243] production, but in some cases several neighbouring villages worked together. Some large villages were divided into one or more groups for the purpose of the community rice garden. Each group had a committee of management and a chairman.

461 In general Monday and Tuesday of each week were set 794 aside for work on the community gardens. Official patrol reports noted that the movement had taken on many aspects of a cult. All stages of work were associated with an unusual amount of religious activity and the tools and buildings of the co-operatives were treated with great veneration. Keesing (1952 : 7) speaks of an "absorbing mystical context" and of rumours that Europeans would leave Papua as a result of the co-operatives. An official observer stated that the people considered "mere participation in the co-operatives would, 797 magically or mystically, quickly raise their status in all re- spects to that of Europeans". Orokaiva people have pointed 461 out to us that cash cropping projects initiated by the government had invariably failed. They felt that a mission project might be more successful. Moreover, whereas they were uncertain of the government's motives they felt the mission to be "on the side of the people", for by introducing them to co-

(1) The co-operative movement in this area is described in more detail in Dakeyne, 1963.

operatives they had given them the key to European prosperity. 461 [797]

Local enthusiasm was strong and a large acreage of rice was grown. However, no marketing facilities had been provided and although the mission had promoted the crop mainly to supplement traditional subsistence foods, most Orokaiva seem to have regarded it as a cash crop. They already had a plentiful range and volume of subsistence foods, and rice was not only harder to grow but also more difficult to prepare than the existing crops. Most of the rice grown was neither sold nor eaten, but was left to rot in the storehouses. 243 433

It is interesting to note that at Ongoho, despite the unfortunate experience with other community crops, all inhabitants of the same nine villages came together to plant a single rice plot. The project was organized by Haruma, the coffee boss, and the rice was planted on the land of the Akute'undi sub-clan. The crop was planted in 1949, and the rice was stored in a house built for the purpose. None of the rice was sold, a little was used for food, but most was left to rot. The experiment was not repeated. When asked why everyone combined to grow the rice instead of growing it individually, the people claimed that they had not realized at that time that cash crops could be grown by individuals. This view may seem incredible to a European, but we have heard it quoted in many parts of the Orokaiva area. Their whole experience of cash cropping had been of large scale enterprises, whether private European plantations, government plantations (which were established adjacent to many district headquarters), compulsory plantings under the regulations, or communal plantations under the ordinance. The introduction in 1955-6 of the concept of cash cropping by individuals was in a very real sense revolutionary. (1)

The idea of community economic activity was again given a boost in 1949 when war damage compensation was paid out. A small proportion was paid in cash, but most was deposited in savings bank accounts. Many government officers then in the area noted that the money was being used to buy 434 454 474

(1) It must be pointed out, however, that among the Orokaiva food gardening had always been undertaken by individuals. [241]

474 foodstuffs and for ceremonial exchanges and some urged the people to deposit their compensation money in a central fund for use by the community as a whole. Many leaders took this advice and collected large sums for the co-operatives. Some of the money was kept in the villages, but some was contributed to central funds which were held on a tribal or sub-tribal basis.

Few of the leaders had the technical knowledge to know how to handle the funds or to apply them to productive projects, and much of the money was dissipated in unproductive [657] activities. About 1950 government Co-operative Officers were sent to assist the establishment of formal co-operatives and to save the many existing informal co-operatives from disintegration with consequent public loss of faith. The officers were able to make headway in some instances, but in other cases the funds were already exhausted and the people disillusioned. In cases where the funds remained, the government insisted on their being handed back to the original contributors before any official co-operative was formed (Belshaw, 1951 : 250).

657 Efforts to increase indigenous participation in com-
24 mercial agriculture in the Northern District in the post-war decade had met with little success and in 1954 the Department of Native Affairs resumed pre-war patterns of promoting commercial agriculture. Additional police were stationed in the area, particularly on the inland side of the Kumusi River but to [466] a lesser extent among the Orokaiva also. One policeman was based at each of a number of villages and each village was required to clear a community garden for cocoa planting.

The Department of Agriculture staff did not favour any extension of community planting and put its emphasis on individual cash crop gardens but, in the early stages at least, this action was strongly opposed by both the mission and the •[777] patrol staff. Missionaries who were involved feared that individual cash cropping would lead to abandonment of the villages as each individual would probably want to live near his own cash crop garden. They felt that this would result in a reduction of religious and educational activity and may lead to a resurgence of non-Christian practices. Patrol staff too opposed individual plantings at that time, in some instances it seems because of an erroneous notion that traditional agriculture was

C2 obscure any important differences in structure and our historical
36 data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[632] of Sivepe now has a population of 120 and is linked with Binduta, several hundred yards away, and with Nahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

131 Sivepe is situated on the western bank of the Sohu River, a
491 tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3½ miles north of Sivepe on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepe it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797 There were very few facilities for formal education in this
871 tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951.:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepe, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepe are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepe children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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1 To be distinguished from Awala 2, the 'hamlet group'.

2 The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

3 A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third misfortune occurred.

731 The eruption of Mt Lamington, which caused catastrophic loss of life and dispossessed many people of their land,[1] left deep impressions on the minds of the survivors, particularly an acute sense of guilt which has been widely remarked upon. They felt that God had punished them for not helping the Allies enough during the war, and for not heeding the wishes of the mission and the administration. Some observers ascribed both the marked spirit of co-operation noticeable in evacuation camps and the avowed intentions of many to obey government directions in the future, to these negative feelings (Belshaw 1951:3-6; Keesing [101] 1951:5). By this time 'population trends indicate that with the present percentage of children, there are likely to be consider- [464] able increases in the future' (Plant 1951:4). The area was closed for recruiting but this did not solve the problem of the [797] supply of labour for reconstruction because men were drawn back to their casual jobs on local rubber plantations and the mission asked each village to work a day a week rebuilding mission stations (Belshaw 1951:8).

657 After the war, compensation was paid for property of the
[731] villagers which had been damaged or destroyed, and following the eruption a programme of resettlement and rehabilitation was instituted.

121 For our investigations, Sivepo was chosen from the villages in
127 the Saiho Census Division mainly because it had been one of the sample villages in the Survey of Indigenous Agriculture conducted by government departments of the Territory and of Australia on behalf of the Food and Agriculture Organization's World Survey of Subsistence Agriculture. Information from the survey has provided quantitative material which, though summary, is directly comparable with results of our short survey of subsistence cultivation. The F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepo villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepo was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

342 [476] required to build the short pig fence protecting the average garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of his agnates. 614 This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments 'are small and communities composed of several, permitting local endogamy' and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 [164] The work patterns we recorded are summarized in Table 4. The figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 461 The extreme weather conditions experienced during our survey - 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them. The amount of time devoted to subsistence and cash crop gardening was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. [797] Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 461 During the week this occurred the women of the sample devoted more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 461 Religious observances were accorded a little more time during the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on 461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 In 1944 attempts were made to revive the communal plantations but employment by the American military in the Inonda-Oro Bay area and other work for Allied troops made the people revise their ideas on the value of their labour[1] and resulted in a general lack of enthusiasm for the cash cropping schemes.

731 The eruption of Mt Lamington and the subsequent floods destroyed many villages and gardens and some 5,000 survivors had to be evacuated to refugee camps at Oro Bay and Ilimo. While the majority were resettled within four months, 1,500 people from within a 'danger area' of eight to twelve miles around the active crater were obliged to remain at Ilimo camp until July 1951, or live with clansmen elsewhere, and re-occupied their villages only over a period of years.[2]

731 Many Orokaiva viewed the disaster as divine punishment, in
823 particular for their lack of co-operation with governmental and mission programmes,[3] and they were reported to deeply appreciate the extensive relief measures, including food, tools and medical
464 services, provided by the Administration. Subsequent Administration reports remark on the willing co-operation of the people in voluntary road construction and their renewed interest in cash cropping.[4] However, once the need for producing food as a relief measure had passed, all staff of the Department of Agriculture were withdrawn from the District. Interest waned and was reported to be 'completely dead' in 1953.[5]

(d) Activities of the Anglican mission

797 Apart from very limited activity by Seventh Day Adventists in the Pongani area and Lutherans among highland labourers at Sangara, the Anglican church is the only mission working in the Popondetta sub-district. It first established itself at the Mambare River in 1900 and activities were gradually extended southward along the coast, but it was not until the 1930s that stations were established among the inland Orokaiva, at Isivita and Sangara. In 1965 the

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1 Patrol Report, Higaturu, 1543/44; Crocombe 1964:21.

2 See Rimoldi 1966:45-6 for a fuller description.

3 Belshaw 1951b:242; Keesing 1952:18. However, some informants viewed it as punishing the Europeans (thirty-four of whom were killed) either for the hangings at Higaturu and Sangara, or for not having provided the Orokaiva with education and access to income.

4 This was in part an expression of the high prices obtaining during the Korean War.

5 DDA, Popondetta, DS-17-4-5.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

principal mission stations were located at Gona, Eroro, Popondetta, Agenahambo, Eiwo and Sasembata. There are now few people not within walking distance of a church or primary school[1] or accessible to a priest or deacon.

The Christian Co-operative Movement has been the mission's only commercial venture in the area. It was initiated at Gona in 1946 and comprised a number of small, village-based co-operatives. The Rev. Alfred Clint was recruited specifically to organise these, and his activities led to their rapid growth among the Orokaiva,[2] the collection of large sums of money and the appearance of many informal societies. As the scheme was primarily concerned with the production of annual crops - rice, peanuts and traditional food crops - large gardens, frequently exceeding twenty acres, were established and worked communally.

In 1947 DASF established a station at Popondetta and attempted to legalise and supervise the development of the movement. A variety of new crops, including oranges, mandarins, pomelos, tomatoes and cucumbers, were introduced through the station by free distributions of seeds.

Despite early enthusiasm no societies survived beyond 1953. This was due partly to loss of the leaders at a critical stage, partly to the fact that whereas Rev. Alfred Clint stressed the Christian aspects of the movement and viewed the introduced crops largely as a means of dietary improvement, the people sought economic advancement, particularly cash income. Moreover, appropriate processing equipment and outlets for the rice were not provided. Cult and protest aspects in the movement have also been identified[3] and a lack of achievement in this context might also have hastened its dissolution.

The role of the mission has been essentially that expressed by the Dominical command - 'Go preach, teach, baptise'.[4] Schooling and evangelism were closely related and only since 1947 have real efforts been made to improve the quality of secular education.[5]

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[1] Belshaw (1951a:2) estimated that more than 90 per cent of the children over a varied age range were receiving some sort of elementary education.

[2] Rev. Alfred Clint's movement is described in detail in Dakeyne 1966a. The first co-operatives to be registered in Papua-New Guinea were the Yega, Gona, Carara and Buna co-operatives, all in 1949.

[3] Belshaw 1951b:250; Crocombe 1964:29-30.

[4] See Coaldrake 1964:1-6.

[5] Initially by attempts to standardise the syllabus and subsequently by drawing increasingly on syllabuses prepared by the Administration's Department of Education.

797 The majority of Papuan teachers remain unqualified teacher-evangelists although the mission is largely responsible for education in the sub-district at the primary, secondary and technical levels. A significant feature of their education programme as a whole remains its total disregard for agricultural training, except incidentally at the Martyrs' Memorial Secondary School where the pupils maintain a coffee garden as well as their own food gardens.[1]

[743] [657] Medical work has already formed a large part of the mission's activities and most mission stations operate a clinic and small hospital while a T.B. hospital is maintained at Embi. As with education, these activities are largely standardised by the Administration and the Department of Public Health is gradually taking over from the mission in this field.

(e) Recent developments in commercial agriculture

241 In 1941 a European planter obtained an agreement, under the Transactions with Natives Ordinance 1893-1935, to exploit the communal rubber plantations in the Awala area.[2] These had not previously been worked. Production commenced in 1943 and continues to date, interrupted only by the Mt Lamington eruption. However, the number of plantations incorporated in the scheme fell steadily and by 1965 only about 30 stands were being worked and tapping had become irregular. This is due partly to poor communications, partly to the fact that an agreement satisfactory to all parties was never arrived at and partly to the planter's own trees coming into full production.[3]

[245] The re-opening of Popondetta agricultural station in 1954 led to a renewal of interest in cash cropping with, in particular, the extensive planting of cocoa. By 1964 there were estimated to be 491,000 indigenous-owned coffee trees in the sub-district, 244,000 cocoa trees, 25,700 rubber trees (almost entirely the product of natural increase) and 108,000 coconut trees. This pattern of steadily increasing plantings only levelled off temporarily in 1959-60 with falling coffee prices, a shortage of coffee seed and inadequate marketing arrangements for cocoa. At the time labour

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[1] However, agricultural training at several levels has been available since 1955 at DASF's Popondetta Agricultural Station (now Popondetta Agricultural Training Institute).

[2] These had been established during the first world war in that part of the District considered too far inland for worthwhile copra production. There were 137 stands in all.

[3] For a detailed description see Rimoldi 1966:86-93.

than might have been expected.[1] However, the withdrawal of the relief teams, including agricultural officers, after the emergency, may have left the people in a psychologically and technologically deprived state, thus further inhibiting their concern with commerce.

The instability of settlement consequent upon these disturbances may also have impeded the evolution of such new forms of leadership and effective group action as have occurred among the Tolai.[2] The careers of such new leaders as were emerging, perhaps with wider group loyalties, have frequently ended catastrophically at important points.[3]

(iii) Lack of co-ordination between the Anglican mission and the Administration. Keesing (1952:21-2) refers to the 'delicate' matter of 'Government versus Mission responsibilities' and alludes to the 'rivalry' between them in connection with the post-Lamington rehabilitation programme.[4] These two agencies are the most potent external forces operating on Orokaiva society and their activities and demands are not co-ordinated, thus accentuating the difficulties of implementing a consistent development policy. Their demands on the villagers' time may conflict, and their views on such important matters as the purpose of education, the role of the teacher and the role of commerce are at variance. The Anglican mission has no formal representation at the policy-making levels in the District though it has great influence in the villages.

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[1] Sjoberg, an authority on disaster research, states (1962:363): 'A typical adaption [to disaster in pre-literate societies] is resignation to one's fate. When catastrophe is thought to be engendered primarily by spiritual forces, man can himself do little to alter the course of events apart from recourse to religious and/or magical practices. Recall that he assumes the immutability of the natural-divine order, which includes also the social arrangements about him. Add to this the meagerness of technological know-how of the sort that would be useful in disaster rehabilitation and we see that mute acceptance of one's lot is the logical result.'

[2] See Salisbury 1962:338.

[3] For instance, the 'renegade' leaders hanged at Higaturu and Sangara; the administrative staff, teachers and the twenty priests-in-training who died at Higaturu in the Mt Lamington eruption, and the Orokaiva leader of the co-operative movement who also died at that time. Many of the most talented Orokaiva are serving outside the region in government, missions and commerce.

[4] Belshaw (1951:248) makes a similar allusion.

438 are supplied by villages within two or three miles of the township whereas the meat and fish may come from much further afield, since
435 their weight/value ratios are much higher than for vegetables. One pound of pigmeat sells for 10c - the price of four taros averaging eight pounds weight. Prices in the markets are standardised and
[434] not dependent on supply or demand. Those who sell meat or fish can earn worthwhile sums, since a wallaby may fetch $4 but, in general, marketing is a significant source of income only for people from the less densely-settled areas or the coast where fish or wild game are plentiful.

464 (iii) Wage employment. Several categories of wage employment are available to villagers from time to time. The construction of new all-weather roads within the sub-district has recently increased the opportunities for temporary employment as unskilled labour.[1]

The Administration frequently makes contracts for the supply of timber or the erection of buildings from local materials and both Sivepe and Inonda profited by these during the survey period. The contract may be made with an individual, who pays the others from the proceeds, or a group.

There are some opportunities for casual employment on plantations,
[461] but most planters prefer to employ workers from outside the Orokaiva area because they are less likely to be simultaneously involved in subsistence tasks and traditional obligations. Moreover, such work is not popular with the Orokaiva, who prefer to work for relatives
[465] holding blocks under the ex-servicemen's settlement scheme at Sangara, Isavene or Girua. Individuals or whole families may stay with relatives or friends in this way, sometimes for several months. No formal agreement is entered into and the villagers may work only intermittently, in return for their keep and, at the end, a sum of money and additional payment in kind (tinned meat, rice, sugar, etc.). In some cases, however, regular payment is made at the official casual rate of $3 a week. Work of this kind is popular and during the survey there was almost always at least one person temporarily absent from Sivepe visiting or working for settlers. At Inonda, it was possible to work for settlers on the Girua blocks while resident in the village.

[497] Anglican mission stations frequently employ school-leavers as
[465] 'medical orderlies' and 'nurses' in their clinics and hospitals. Standard IV or V education is required but the salary is normally only $1 a month and few adults are involved.

[491] [1] This applied to villages between Popondetta and Inonda when the road to Oro Bay was improved in 1963-64, and in 1964 work began on the realignment and improvement of the Popondetta-Kokoda road, which passes through Saiho census division within three miles of Sivepe.

525 the losers. Villagers may also lose a fair proportion of their cash income through gambling.

461 (vi) The use of cash. Income is used for settling obligations, direct consumption and capital savings. The first includes taxes to the local government council, contributions to the mission and marriage payments. These occur only occasionally, but their size may require that an individual seek wage employment or harvest his cash crops with the specific purpose of meeting such requirements. The heaviest demands coincide with and immediately follow the [651] period of most intensive cash crop production. Between about [623] March and July the Higaturu Local Government Council collects its [797] annual tax of $6 per adult male and $2 per female. During the latter half of the year, the Anglican mission seeks contributions [436] to its Papuan Church Fund, in some areas recommending gifts of $4 by men and $2 by women. Cash also circulates among villagers in the form of small gifts as part of the 'normal' exchange pattern.

366 Most villages are within half an hour's walk of trade stores and during the dry season in particular, distinct recourse is made to them for food. Only very small sums are paid out at markets or to hawkers.

454 Opportunities for investing savings occur with two local companies, Oro Ltd and the OCGS, and with the major savings banks through their agencies. In spite of a required minimum shareholding of $5 and $10 respectively, the first two have elicited considerable support and are preferred to savings accounts because interest on the latter is considered too small.[1] In addition to shares, a considerable amount of money is tied up in village or clan savings accounts but there are few instances of this money being used to benefit the group.

241 Apart from the few trade stores and coffee pulpers, little income [179] is invested in large capital equipment. Herein, perhaps, lies the anomaly of commercial agriculture in the Northern District. In spite of the long record of experimentation with various forms of work organisation and tenure (admittedly, largely directed from outside), the degree of economic development remains low when compared with the Gazelle Peninsula or parts of the Eastern and Western [493] Highlands Districts. The proportion of cash croppers among villagers is lower, as are the actual incomes derived from cash cropping and there are no locally-owned vehicles (except those of ex-servicemen settlers). Nevertheless, interest in commercial agriculture is

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[1] One expatriate planter who operates a savings bank agency expressed concern that withdrawals had exceeded deposits for the twelve months preceding mid-1964. He believed that the money was being used principally to buy shares in Oro Ltd.

491 [499] [361] station with Boru on the main road near Awala and passing within a mile of Sivepe, but it was not completed by the onset of the wet season. It was intended that this would be used by the OCGS and other purchasers of produce. This was the main reason for the Sivepe people's decision to move their village to a site within 200 yards of Sasembata mission station.

797 [743] [87] Sasembata mission is a head station of the Anglican mission. Among its facilities are a church, administered by an Orokaiva priest, a hospital and infant welfare clinic run by a Papuan medical orderly but supervised from the Administration hospital at Saiho, and a primary school with 400 children on the roll.[1] The school includes classes up to Standard V and is headed by an Australian with the assistance of ten Papuan teachers. A small trade store is operated by Oro Ltd at Kongohambo village adjoining the mission station.

621 [342] Sivepe itself is laid out as a line village, with lineage members tending to occupy adjoining houses (see Map 4). The houses have a mean size of 229 sq ft and are built entirely of local materials, with the exception of nails which are now commonly used.

[125] Three clan branches are represented in the village and two of these, the Jegase and Timumu clans,[2] comprised the survey sample (55.3 per cent of the total village population of 114 in January 1964), the characteristics of which reveal them to be representative of the population as a whole.[3]

166 464 The population of the sample declined by 20.6 per cent, from 63 to 50 persons, over the survey period. Ten of the 17 departures migrated to other villages and the rest sought wage employment within the district or in Port Moresby. This continuing out-migration intensified certain characteristics of the village's labour force, for by January 1965, 37.8 per cent of the potential adult male labour force was absent, the majority on a long-term basis in unskilled or semi-skilled work or low-ranking positions in government service.[4] In three cases, wives and children remained in the village and were supported by close kin. In January 1965, there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[361] [2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1A and Fig. 4:1.B [4] See Appendix 2.C

A, [See Category 163, p. 307--Analyst] B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

511 Only one man owns a mosquito net and there is only one transistor
[207] radio in the village. Some of the older people still wear tapa
291 cloths but new ones are seldom made now. The more common form of
178 dress is a pair of shorts, a skirt or a laplap, the skirts being
[797] mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

411 Two men in the sample own shotguns, costing $58.75 and $59.75.
[435] These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

342 None of the houses conforms to the traditional Orokaiva style,
178 but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

312 A creek running beside the village provides the water for bath-
487 ing, cooking, laundering, washing dishes and pulping coffee. Paths
514 are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

133 Inonda lands run from the low plains (200 feet above sea level),
134 beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with
[31] the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

461 [464] Although returns to labour from paid work are substantially less than from cash cropping,[1] medical work is popular among young people because of their participation in a group with common interests, while contract work, being more casual than most forms of paid work, enables most village activities to be pursued concurrently with it. An important consideration for the married person is that such work can be done while continuing to reside with one's family in the village.

512 177 [747] (iii) Other activities. Of activities associated with the external sector of the economy, it is the 'non-productive' which are the most time-consuming: 5.8 hours per man-week are devoted to the external agencies, 3.0 of them to the church. The proximity of Sivepe to an Anglican mission head station run by an expatriate largely accounts for this as church activities tend to be more highly organised and frequent than on an out-station, so much so that during the Easter church festival, 13.1 hours per man-week were absorbed by services (week 8). Similarly labour requirements, in terms of voluntary assistance in erecting and maintaining buildings, are far greater at a head station.

Church activities reached a peak during period II with the Feast of St Mary Magdelene, the visit of a bishop, and the reconstruction of school classrooms. During period III a marked decline was registered, largely due to the general resentment of the villagers at what they considered to be excessive demands placed on their time during the preceding dry season. It was felt these demands had conflicted with major village activities such as cash cropping and the increased urgency of the food quest at that time.

[797] Formal gatherings or meetings are a recurrent aspect of village life. Of the 1.3 hours per man-week spent at them, 42 per cent is in connection with the Administration - at census takings, court cases, etc. - and a further 26 per cent with women's organisations - the Administration-sponsored women's club and the mothers' union run by the Anglican mission. The balance of the time is divided between political, OCGS and Oro Ltd meetings and disputes within the village.

[466] [651] The local government council dictates that one day per week be spent on road maintenance and upkeep of the village area. It also requires that all adults present themselves, annually, for tax payments and that all births and deaths are registered. Altogether this council work amounts to 1.2 hours per man-week.

[432] While Sivepe is close to a number of trade stores, the people's limited requirements from them results in little time (0.4 hours per man-week) being spent in the purchase of goods.

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[1] For a detailed analysis of comparative returns to labour see pp.290, 292.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

more time than others, during the survey at least, on house building. During period I, while still living in the old village, he erected a temporary house on the new site. During period II he lived in this structure while building his permanent house, and this was completed during period III. As was pointed out above,[1] the amount of time spent in building during 1964 was much higher than in most years.

Only 17 per cent of his time is spent in activities related to the external agencies and the monetary sector. Of the comparatively small amount of time devoted to activities not directly productive, Paulus spent most on minor activities and social obligations. As with the leading man, little time is spent on visiting.

Mamoko. A widower aged about 55, Mamoko was captured in an inter-tribal raid on the Managalase people in the Hydrographers Range and adopted by his captor from Inonda. He married an Inonda woman and had several children. His two surviving sons are still resident and several daughters are married to men in other villages. He received no education but spent six years as a plantation labourer. Unlike many of his generation he was baptised as a Christian and regularly attends the village services. It is said that Mamoko would be the 'embo dombo' (big man) of the village if his wife were alive, since he knows most about the land and social relationships (which are of primary importance when organising feasts). However, as he has no wife to assist him and to lead the other women, he is unable to fulfil the role effectively. Instead, he gives advice to Lawrence, the accepted leader. In 1955, he and two other men, both rather younger than himself, made small coffee plantations on the north side of the Girua River. Some years later he gave his trees to his eldest son and staked out a harvested food garden near the present village site preparatory to planting cocoa, but he did not complete the scheme. During the survey, he spent a little time assisting the other men build the copra-drier and a little in collecting and splitting coconuts to make copra. His only cash income during the survey was from gifts, but immediately prior to the survey he had worked for some weeks on road-building.

The widower has the shortest working week of all the villagers, but 88 per cent of his time is devoted to directly productive activities. Over half is spent on the clearing, fencing and cultivation of subsistence gardens. Taro receives most attention, followed by yams,

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[1] See p.136.

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[797] to discuss the possibilities that cause this effect. It is interest-
177 ing to note that the village of Beporo is situated beside the Gona
871 Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

Table 2

245 242 423 162 464

Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

434 In addition to their earnings from cocoa production, Yega villagers had four sources of income.

[439] [441] i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

434 438 ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

Introduction

474 178 Since the end of World War II there has been a rapid development of co-operative marketing and retailing and in some cases production amongst the indigenous people of Papua.

[121] [799] This paper describes the origin of the co-operative movement in the Northern District and its subsequent development and modification particularly as applied to Yega.[1] The Yega were one of the first groups to organize a producers' co-operative, under the guidance of the local Anglican Mission. The movement rapidly extended to other groups of Orokaiva.

The development of agricultural co-operatives

474 799 177 241 As early as 1940 the Reverend James Benson of the Anglican Mission at Gona had begun to preach the virtues of co-operation. Benson was imprisoned by the Japanese but returned to Gona in 1946. The first mention of any co-operative in the district comes as a brief entry in his diary on 6 October 1946, 'Foundation of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are not clear beyond the fact that it was organized as a committee or board - entirely Papuan in composition, with Father Benson as advisor - aimed at investigating ways and means of improving standards of living.

474 241 One of the most dynamic and influential members of the G.P.T. committee was Samuel Ungega from Gombe village. He was a member

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128 [1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:
H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);
G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);
Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

Unfortunately for the co-operatives, the mission organizers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

Early in 1948 the foreman in charge at Ononda was sent by the mission authorities to Boreo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

474 support, a peak number of 19 households being engaged during 1949.
241 In 1950-1 Samuel attended a nine months training course in Port Moresby at the invitation of the Administration Co-operative Officer. Samuel attempted to ensure the continuity of his scheme by appointing and training three men to oversee operations during his absence. Two of the men chosen were Yega men with close affinal ties with Samuel, the third was a Bapa man having only a remote kinship link but particular ability. The scheme continued to function smoothly during 1950. Samuel's plan was to grow annual cash crops and to build up a reserve fund for the first few years, then to undertake tree-cropping. He bought cocoa pods and had the seeds planted in a nursery in January 1951. During his training period Samuel made two trips to Gona to observe the progress of the co-
[731] operative. On the second of these visits he took his daughter to the hospital at Higaturu and was among the 4000 killed when Mt Lamington erupted on 21 January. After his death no more cash crops were planted at Garara. No one knows what became of the money received but none was ever distributed to members of the Gombe Co-operative.

474 The mission-sponsored Christian co-operative embraced more
241 people and a much greater area than the Gombe Co-operative. The
177 Anglican Mission at Gona is responsible for an area that stretches
797 approximately 30 miles north and 15 miles south and extends in a rough arc 5 to 10 miles inland. Little information was available from the mission records, but it seemed likely that the Christian co-operative, named the Gona Co-operative Society, was launched during April or May 1947, that membership among the Yega was almost universal (apart from the members of the Gombe Co-operative) and that there was no fixed share payment, each adult male contributing what he could afford. A large store was built.

[657] In September 1947 Mr John Millar, government officer in charge of co-operative development in the Territory, visited Gona and addressed a meeting of 500 people in the new store, explaining the Administration's plans for co-operatives in the area. He suggested that the present Gona Co-operative Society be split into an association of eight smaller societies, each centred in its own local community.[1] The meeting agreed and Mr Millar departed. The committee assumed that theirs would be among the first co-operatives to be registered when the necessary legislation had been passed and this was the position when Father Benson departed on home leave at the beginning of December 1947.

Mr Millar's advice was implemented after April 1948 by Rev. Alfred Clint who undertook to organize and co-ordinate the

[1] The eight societies within the association were to be centred at Gona, Garara, Bakubari, Gombe, Soputa, Buna, Huhuru and Hamburata.

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

474 worked for eight. This became an important basis for resentment
241 and discontent among the workers.

The arrival of Rev. Clint in 1948 ushered in a period of
474 dynamic growth in the co-operative movement in the district. He
241 had a deep interest in co-operatives, and had been associated in
177 Australia with the Christian Socialist Movement. He was speci-
797 fically recruited by the mission to organize agricultural co-operatives and within three weeks of his arrival he had held meetings with the members of three of the co-operatives and had discussed future development with the District Agricultural
[657] Officer, Mr Cockshott. In mid-May he commenced a weekly co-
[191] operatives instruction class covering co-operative leadership, history of co-operatives, basic techniques, book-keeping and English.

[782] Rev. Clint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed
[795] in the gardens. This aspect of the co-operative movement was
[178] regarded with some apprehension by Administration officers who felt that it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin. Money was collected surreptitiously (its disposal was never explained), and in the opinions of some observers there was a belief among some participants that the mere formation of co-operatives and the routine performance of the work required would magically raise the Papuans in a short time to the status of Europeans. On the other hand, there was evidence to support the view that the people in their desire to improve their economic position saw co-operatives as the channel and adopted the idea wholeheartedly. There is something of both these views in the statement of the ex-chairman, who said: 'We wanted to be like other civilized countries and earn money by working together.'

In November 1948 there were 25 acres under dry rice at Gona No.1, and 10 acres under taro, 6 acres of rice and one acre of peanuts at Gona No.2. Similar areas were under crop at the other co-operatives. The first harvest in early 1949 appears to have been a success. On his return from leave in March 1949, Rev. Benson spoke of 'barns and storehouses bursting with rice, people happily busy...true comradeship and Christian co-operation'.

474 In August 1949 the first four co-operatives in the Territory
241 were registered.[1] They were, in order: Yega, Gona, Garara and
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[1] This registration was made under the terms of draft legislation. It was not confirmed by the Registrar of Co-operatives under the finally approved legislation, the Co-operative Societies Ordinance 1950.

Buna. The registering officer stated that 'the co-operative movement in this district is the only one yet far enough advanced for registration'.[1]

About this time, discussions were held between Rev. Clint and the local agricultural officers regarding the practicability of planting tree crops - especially coffee and cocoa - as eventual replacements for the annual crops then being grown. The problems associated with the establishment of these tree crops were not solved, however.[2] Had they been solved, a serious difference of opinion regarding policy would have been avoided. The divergence of views was between Rev. Clint, who saw the production of rice by co-operative methods mainly as a way of improving the subsistence diet of the people, and the people themselves, who saw it as a way of earning money. As time went on, it appeared to the villagers that Rev. Clint's interests lay only in subsistence crops and their enthusiasm began to wane. Towards the end of 1949 Rev. Clint became ill and he had to return permanently to Australia in January 1950.

In Rev. Clint's view Christian co-operatives had 'grown naturally out of the teachings of the Christian faith' (Clint 1950). Unfortunately he did not recognize that material considerations weighed at least as heavily as spiritual values in the minds of the people among whom he was working. The people had readily accepted a departure from the traditional practices of land tenure, an entirely different system of work organization; and the cultivation of a new crop, rice, which involved radical changes in their gardening techniques. The Yega, anticipating a substantial cash income, had welcomed these changes, but soon discovered that rice could not be converted readily to cash. There was no possibility of rice being grown in sufficient quantity in any one locality (for reasons of land availability and manpower) to justify the establishment of central milling facilities, and inadequate transport facilities prevented combination with other areas, even had these existed at that time. Without central milling, which would have produced a brown rice, properly dried, and saleable to the Administration and plantations, the only means of converting 'paddy' rice into a storable product was to use smaller semi-portable mills to produce white or polished rice. The milling, however, whilst converting

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[1] Quoted in the Gona Anglican Mission Diary.

[2] Specifically, lack of knowledge of the soils in the area, lack of any experimental plantings, and a shortage of trained staff.

474 The finances of the store were under continual surveillance
443 both by the local inspector and by the Assistant Registrar of
[657] Co-operatives in Port Moresby to whom regular reports were submitted
[454] by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

[438] The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

[434] The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

464 The Yega had since the early 1930s been within walking distance
167 of one of the best mission schools in the Northern District, with
[368] a European teacher permanently on the staff. In consequence young
[871] Yega men, who almost without exception left the villages to enter
[777] paid employment, were able to obtain skilled and semi-skilled jobs.
[434] In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

474 Expansion of membership in the G.V.N.S. Co-operative had almost
443 ceased in 1964: 561 members in 1958 increased to 578 in 1961. As
438 a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

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[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

investment in the villages, for there is scope for an astute and influential individual to use them to accumulate cash which may subsequently be invested. On the other hand, an institution such as bride-wealth may be detrimental in that an individual may consider it pointless to earn more cash if a large proportion is to be used to assist kin in exchanges which do not benefit him directly. Also an individual may have difficulty in accumulating cash for investment if social pressures force him to contribute a high proportion of his cash income to non-commercial exchanges. 121

In addition we have no clear understanding of the degree to which and circumstances under which an individual's participation in ceremonial exchanges involving cash affords him access to the land, labour and capital resources of the group to which he belongs. Some indigenous entrepreneurs minimize their participation in these exchanges while others apparently attempt to use them to advantage.

The following description of an Orokaiva marriage and bride-wealth exchange does not contain sufficient information to allow generalizations about economic implications but may be a useful contribution to a comprehensive study of customary exchanges. The activities associated with the marriage involved people from several villages and hamlets as well as a nearby land settlement scheme. The events spread over approximately two and a half months culminating in the payment and distribution of the bride-wealth at the end of August 1962.

II

Traditionally, an Orokaiva man could acquire a wife by payment of bride-wealth; by exchange of a girl from his lineage, sub-clan or clan for another from an outside group; by elopement; or by capture (Williams 1930:130). When Europeans gained control of the Orokaiva area early in the century, marriage by capture, which had been common, was no longer possible. Since then, other aspects of marriage among the Orokaiva have changed. People may now move freely within the Orokaiva area and elsewhere, and consequently the range of villages from which an individual may choose a spouse is wider than in the pre-contact period. Furthermore, many marriages now take place at least partly in accordance with church practices. Missions[1] have failed to suppress exchanges of bride-wealth and it 583 583 197 [197]

[1] The Anglican Mission has been operating in the area for over 50 years and has been the most influential evangelical institution there.

583 is still transferred in most marriages, including those which take
177 place in a church.

199 Polygyny was accepted but probably not frequent in traditional
Orokaiva society. In spite of mission opposition there are still
595 instances of polygyny but the great majority of marriages are
monogamous. Marriage outside the clan is considered preferable
614 but there are numerous cases of marriage within the clan. The
village is not considered an exogamous unit. Marriages are usually
582 patrilocal but this is not a definite rule (cf. Williams 1930:130-3).
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III

584 In this particular marriage the groom lived in Inonda, a village of approximately 45 people about 11 miles from Popondetta.[1] His was the only family of the Jegotumo lineage of the Andiriha clan in Inonda, although there were others at Hohota I and Kakendetta.[2] The groom was the eldest child by his father's first wife. His mother died several years before his marriage and his father remarried. The father died six weeks before the marriage payment described here took place.

The groom attended Anglican mission schools for eight years and reached Standard V. He was baptized in 1958. In 1960, when he was about 16, he left school to train as a medical orderly at a mission hospital at Embi about ten miles from Inonda. In 1962 he returned to his father's household in Inonda and was employed by the government for $3 per week to tend the ford where the road from Popondetta to Oro Bay crossed the Girua river. He also assisted with the production of coffee, from which the household earned approximately $16.00 annually, and with the household's food gardens.

The bride attended mission schools for four years and reached Standard III but was not baptized. Her father, who died during World War II, had been the head of Joremba'embo lineage and of the Andiriha sub-clan in Inonda as well as headman of that village. After her father's death the bride went with her mother, elder sister and brother to live with her mother's elder brother at Ajoro village about five miles away. In 1948 a parallel cousin of her father was demobilized from the army and married her mother, thereby becoming her adoptive father (to be referred to hereafter simply as her father). Subsequently she lived in his household in Inonda

[TEXT CONTINUED ON PAGE 86]

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[1] See map, p.84[A]

[2] See diagram, p.85[B] and Crocombe and Hogbin 1963:14-25.

A [See Category 102, p. 84--Analyst]

B [See Category 583, p. 85--Analyst]

383 and later to be provided by the people themselves. This idea was
654 taken up by the villagers and the first bush rubber processed at Ombi-Tara was purchased by the Department of Agriculture on 5 June 1964.

[439] An Agricultural Assistant was stationed full time at Ombi-Tara and he helps to grade, weigh and bale the rubber.[1] The baled rubber is purchased monthly by an Agricultural Officer who drives to Ombi-Tara from Popondetta. It is marketed in Australia through the Papuan Rubber Pool.

249 Tapping is organised on a rotation system, with one man tapping
434 the bush rubber stand each month, producing between 70 and 200 lb of Ribbed Smoked Sheet, and earning between $12 and $34, depending of his diligence and the price of rubber.

383 In mid 1964 the villagers built a smoke house, a machine house
474 and a baling house, all of local materials, for the equipment on loan from the Department of Agriculture. The baling press was
[654] provided on permanent loan by a local planter.

[402 On 27 October 1964 an Ombi-Tara Village Savings Account was
454] opened at a bank in Popondetta with the sum of $227.50. During the following year money was paid in at irregular intervals at an average rate of about $14 per month.

On 12 February 1965 the Ombi-Tara people paid $177.72 for their own rollers and coagulating pans which they now use for processing, leaving the Department of Agriculture free to transfer its equipment to another recently initiated scheme. Extra coagulating pans were bought for $91.20 on 16 October 1965, leaving a balance of $117.84 in the village account.

[651] No deposits were made between October 1965 and the end of January 1966 because of the need to save money to pay the Local Government Council tax ($5 per man) and the Mission jubilee contribution ($2 per householder).

243 While the bush rubber processing project appears to have been a
[797] success, almost every other attempt made by the Ombi-Tara people at planting cash crops has failed. They participated in a communal rice growing project in 1950, encouraged by the Anglican Mission, but it was a failure, as were similar projects in other parts of
245 the district. Later in the 1950s a communal cocoa plantation of
[654] some 400 trees was established with Administration encouragement. Disputes over the organisation of work and the distribution of proceeds caused the abandonment of the project shortly afterwards.[2]

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[1] During our stay all rubber processed at Ombi-Tara was graded Ribbed Smoked Sheet No.2.

[2] On the communal rice and cocoa experiments in the Northern District see Crocombe 1964a:29-33.

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[A villager shows off the fighting head-dress of his father. It is intricately made of boar tusks, shells, feathers, and hornbill beaks.]

THE YEGA OF NORTHERN PAPUA

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[161]

THE Yega is a group of nearly 900 people living in sixteen settlements, on an area of about twelve square miles, on the north coast of Papua. They live on a gently sloping alluvial plain between Mt Lamington and the sea. Yega territory is bounded by one large stream and crossed by several small creeks.

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The plain was originally covered by mature rain forest 100-120 feet high, interspersed with elongated strips of grassland. Now, much of the original forest has been cut down, and secondary forest forty to fifty feet high has

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replaced it. The climate is hot and wet throughout the year (Köppen Af.) but there is marked seasonality of precipitation. The north-west monsoon, November to April, brings two-thirds of the annual rainfall (average 100 inches per year); July and August with about four inches per month are relatively dry. The temperature is over 80°F on most days and rarely falls below 70°F on the coolest night, but the heat is alleviated by north-easterly sea breezes which blow during the afternoon and evening throughout the year.

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The first reported contact between Europeans and Yega was during an expedition along the coast by the Lt Governor of Papua, Sir William McGregor, in 1893, but the first real step in the process of change occurred with the establishment of an Anglican mission

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school on Waususu Point in 1909. From this time until the outbreak of World War II, Yega men began leaving their villages to work

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

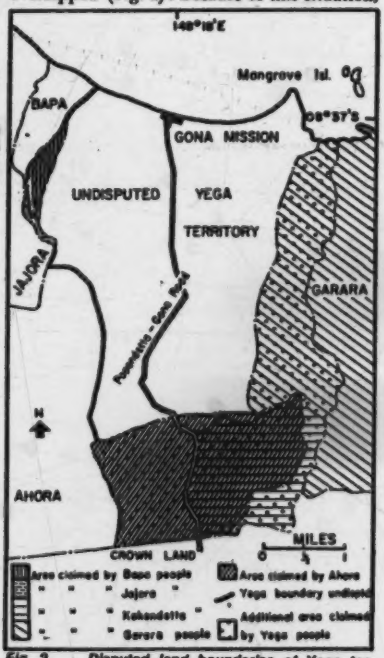

Fig. 2. Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)

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(P.6-A)

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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

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within his sub-clan so that all sub-clan members may be found working land in close proximity. This custom was necessary in the past for mutual protection against raiders. It

[P 7-B) [TEXT CONTINUED ON PAGE 8-B]

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[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

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[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male

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614 members of a clan lived together with their wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement west-

361 ward along the beach continued until about 1930. People were encouraged to move by the increasing effectiveness of Government control

[657] and by the establishment at Gona Mission of

[799] a school and hospital staffed by Europeans.

[P.12-B]

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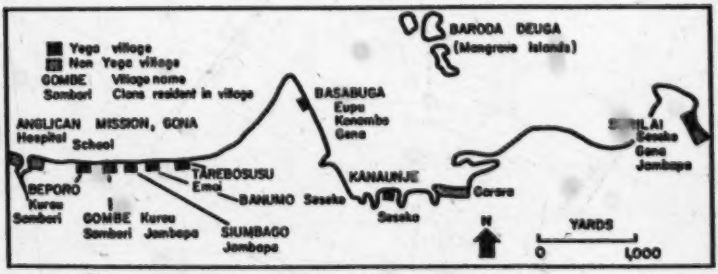

[P.12-C]

Fig. 9. Settlement pattern of the Yega in 1950

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Fig. 12. Settlement pattern of the Yega in 1964, showing recent dispersal of the population and the break-down of clan-based villages. House marked "A" is ringed in Fig. 11

(P.14-A)

178 and Samarai. They were away from home for
433 two years at a time and were not accompanied
464 by their wives and children. Since the war they
466 have not returned to indentured labour but
have tried other ways of earning money.

The first such experiment was an agricul-
494 tural co-operative, originated by a returned
241 soldier who got the idea from one of his
[177] wartime Australian friends. Anglican Mis-
sionaries sponsored and directed the scheme
[999] and some money was made from cash crops
of sweet potatoes, peanuts, and rice. However,
when the money was shared amongst all those
participating, it was a very small return for
the amount of work and there was widespread
dissatisfaction. The scheme was finally doomed
to failure by two events—the permanent re-
turn to Australia of the mission organiser in
January 1950, and the death of the Yega leader
in the Mt Lamington volcanic eruption in
[P.14-B]

January 1951. The failure of this scheme emphasises the important role of the individual leader in any innovation in New Guinea.

An important modification to the residential pattern resulted from the Agricultural Co-operative. Not only was co-operation practised in the gardens but co-operative theory was preached as a Christian ideal in the churches and taught in the schools and training colleges of the Anglican Mission. The teachers emphasised the practical advantages of living in a large community; for example, co-operative labour could be easily organized, social clubs could function more readily and school, church, and hospital would be more readily accessible to the majority. Most Yega accepted this view and, during 1953, many of them rebuilt their houses in a planned rectangular village, Beporo, close to the mission station (Figs. 4, 12). Here there was a tendency for the household heads of each clan to group their dwellings together and to maintain the same inter-clan relationships as had existed in the smaller villages. Nevertheless, there was a breakdown in the previously tight social control over the location of dwellings. Some men exercised this freedom by building away from their clansmen but near to their wives' kin and in some instances even sharing a dwelling with them.

Since 1960, seven new inland villages have been established along the road leading from Gona mission to the town of Popondetta. This movement inland from the coast was initiated by the development of a cocoa-planting project which is without doubt the most significant change in land use to have occurred yet. In 1960 the old wartime road between Gona and Popondetta (actually the last stage of the Kokoda Trail) was re-opened by the efforts of the Anglican missionary living at Gona. It gave access to land at Ononda which in the opinion of the District Agricultural Officer (DAO) was suitable for cocoa. As the Yega had previously made enquiries about planting cocoa, the DAO now advised them to clear a large area of rain forest and plant their cocoa in a continuous strip, which would then be sub-divided into individual blocks, rather than in the small scattered plots which is the usual pattern of indigenous cash crop plantings.

[P.15-A]

245
177 b) The production of crops specifically for sale.

[654] c) The acceptance by the indigenes of
[657] supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the time of earliest contact with Europeans some
166 of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accompanied in almost every instance by their wives
592 and children. This situation represents a
166 marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega

[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with

[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on

[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 remember the dead in such ways. In the meantime one may hear the drums beating
765 in some villages as the men spontaneously come together for recreation and practice.

The programme of reconstruction, then, is very much a matter of the allocation
731 of time between such ends. To regard it simply as a matter of building houses and
making gardens would be a mistake. But even within that simple framework the
311 rate of reconstruction is dependant upon the availability of resources and the organization of work. It was estimated that the re-established population would have about five acres of land per head outside the danger perimeter—over 100 to the square mile. This is small compared with other areas of Papua, but it is held to be sufficient to maintain present standards of shifting cultivation. The forest building resources, with the possible exception of grass and sago thatch, appear to be adequate for immediate purposes, and it is hoped that thatch can be imported from near by areas. But there are indications, as we shall see, that agricultural requirements may alter; and it is not certain what effect this dense population will have on permanent timber resources. As against this, the people are permitted to extend gardens into the danger perimeter provided they do not stay there overnight. Unfortunately the immediate benefits of this are reduced by the fact that taro and other gardens are choked by weeds and the roots have in many cases rotted. It will take time to build up a stock of reliable seed and to turn this into good crops.

731 Papuans, and particularly the Orokaiva, work with great vim and energy when
they can work as a team, within sight and sound of each other. The melodious
461 song that rose as village groups combined to fell the forest on their new sites was exciting, and as the song died away the rhythm of the work continued, this time accompanied by back-chat and joking. All reconstruction work cannot take place with such groups—timber and cane materials, for instance, are gathered by people working apart from each other. But attempts were made to increase the frequency of directly co-operative work by a typical modern Papuan device, the allocation of work days by village constables and councillors, acting after a village meeting.
[657] The custom of Government Day, the day a week which is set aside for village hygiene
[797] and improvement, is universal in Papua. To this has been added, in some cases, a Mission Day, set aside for work in support of Missions. From this it is an easy step to allocate work for the week in such a way that most villagers will be doing the same type of job on the same day, and hence the possibilities of co-operation are increased. In most of the reconstruction villages Monday and Wednesday were set aside for house building, Tuesday and Thursday for garden work, Friday for hygiene and road construction (the latter a most important activity in the area at the present time), and Saturday free or for Mission work. This calendar was somewhat complicated by the rather inopportune demand of the Mission for a tithe of labour to expand Mission stations in the area, a task that could well wait until the people are more settled.

657 So far I have been writing mainly of the immediate problems of re-settlement.
The Administration is however taking a much wider view and there is a great deal of

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

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a Co-operative Officer was posted to the Northern Division. His later reports cast further light on the nature of the movement.[8]

When the movement first appeared in Kokoda its apparent objects were to produce rice, as did the more regular co-operatives of the coast, and to build a store at Killerton, the port, apparently with the object of cutting costs. The rumours held that it was an order from the King that co-operatives should be formed, and that there had hitherto been no co-operatives in the area because the Government was angry with the natives for killing some Europeans during the war. Further, the co-operatives would have "bosses" appointed by the mission teacher who led the movement, and as a result of their activities the white people would leave Papua and the villagers would be in charge of their own affairs. At this point the movement seems to be very similar to a watered-down version of the "Masinga Rule" movement of the Solomons; but there is no clear evidence that there was actually a cargo cult.

The first duty of the Co-operative Officer was to regularize the position of these people, and to do this he visited the villages to obtain lists of contributors of money. He met with some resistance as a government agent, but seems to have been very successful in obtaining public confidence and in most cases lists were made. In accordance with official policy, the money was then handed back to the contributors, with the promise that regular co-operative activity would be supported and that contributions could be collected again when the people were ready for it. The Officer then moved to the Periho area, where the same situation obtained, and began to hull rice. At this stage the volcano erupted.

The reports of the Co-operative Officer at this time were frankly pessimistic. Many people refused to allow him to hull the rice when it was grown, though demonstration hulling tended to alter their viewpoint. The Officer interpreted this as showing that the people did not understand the objects of their activity, and that [797] they were not ready for co-operation. In fact, however, the position was complicated by the way in which the co-operatives had grown up as Mission-sponsored organizations, and the resistance seems to have been not so much to the idea of production, but to the intrusion of Government in a field the people wanted to keep for themselves, with Mission assistance. Government assistance was nevertheless very necessary, as the Mission had allowed crops to ripen without hulling and in general took an unrealistic view of business aspects of the movement.

At the same time it is true that the people were vague and mystical about their activity. Co-operative gardens and co-operative houses were made. The gardens were to produce rice and vegetables for sale. The principal feature of the activity seems, however, to have been religious rather than agricultural. A cross was erected overlooking the garden, and prayers were said before activity took place. The gardens were far too small to be economical—smaller indeed than many gardens of

[8] Co-operative Inspection Reports 1950-51, Co-operative Officer Northern Division to Registrar of Co-operative Societies.

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory, feelingly recounted. But the fine points of organisation of the resettlement camps are very much harder to recover.

648 In this preface, my main purpose is to explain my research procedure. I should also, however, mention one or two general facts as a background to my report. The British Protectorate of New Guinea was proclaimed in 1884; the Territory of British New Guinea was placed under the authority of the Commonwealth of Australia in 1902. The effective conquest and pacification of the Northern District in which the Orokaiva live, occurred between 1894 and, say, 1906. It was to some extent speeded up by the presence of some gold miners who had to be protected and the road from Buna to Kokoda was built towards the end of that period.
[799] After the first world war, Europeans set up rubber plantations on a small scale; the Anglican Mission became established, especially along the coast. The process of pacification was a somewhat bloodthirsty event. If the Orokaiva are asked to state when they discovered what they call the "new day," i.e., modern civilisation, they refer neither to this conquest, nor to the events following the eruption, but rather to the second world war and its aftermath.

648 The Japanese conquered most of the Northern District in
177 1942 and were driven back, in the beginning of 1943, by the combined Australian and American forces which crossed the Owen Stanley range and defeated the Japanese along the Kokoda trail. Some Orokaiva collaborated with the Japanese and killed or betrayed Europeans who were left behind in the district. When the allied forces came, the Orokaiva were able for the first time to establish really comradely relations with white men who, moreover, were generous with gifts and left behind much valuable equipment. The returning Australian government developed a new colonial policy after the war eliminating the old use of compulsion and corporal punishment while the Anglican Mission and later the government did much to improve educational facilities. Access to trade goods on a major scale began about that time. Training in the handling of cash crops, notably coffee, also dates back to the immediate post-war period. The eruption, which occurred in 1951, certainly had significant social consequences, but it is not easy to keep these consequences, i.e., the modernisation that can be directly ascribed to government measures arising out of the eruption, distinct from the policy of social development that was being followed at this time throughout the district.

731 With regard to the eruption, we must distinguish three types of effect: first, a part of the district, notably that occupied by the Sangara tribe, felt the direct blast and suffered very heavy casualties, while all survivors were evacuated; secondly, a part of the district, occupied by several tribes, was endangered

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
● 797 the eruption. Sivepe children now all go to the school at the Sasembata mission station which teaches up to Standard 6. Inonda children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

423 I have already referred to the main resource, owned by the
311 Orokaiva, which is their land. The Sivepe people own only about 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

276 from relatives who live in the mountain districts or else obtained
439 by barter, or bought from other villages or at the Popondetta market.

Sago is made and eaten when other crops fail, but the plants
245 are also used as building material. As the supply of sago is very
[262] limited in both villages, the plants are highly prized. Inonda people owned only 21 trees so that the bulk of supplies was obtained from other areas, e.g., from wild sago trees over which they claim rights. In Sivepe, the total supply is in the vicinity of, probably, 300. This suffices for the local need, both as an occasional supplementation of the food supply and for building, when a great quantity is needed.

● [799] The special position of sago among economic trees was shown clearly in Miss White's description of the building of Sasembata mission station shortly after the eruption. This was a big project in which all the surrounding villages (including Sivepe) collaborated. Labour was given free and so were all building materials--apart from sago for which payment was expected and made. I was told by informants this was because sago is a cultivated, not a bush tree. During my field work period, the mission again needed sago roofing for expansion and repair of buildings, but this time no payment was made. However, each household was asked for a contribution of only two strips of roofing. Thus, it was again treated as a resource of special value as other materials were not supplied in such strict rations.

The ajimo tree, used for manufacturing bark cloth was not reported in Inonda by Crocombe and Hogbin but we did find a small
[287] quantity growing. Though bark cloth is only used for dancing costumes nowadays, in both villages, these dances still take place from time to time. The women's clubs have stimulated the production of painted bark cloth for sale, but this has not led to extra plantings. Sivepe's supply of ajimo trees was only one or two for most households, sufficient for an occasional festive garment with none to spare, but there was an abundance of ajimo in some other villages in the Sasembata district. Here we may notice a definite change between the pre-eruption period and the present at pre-eruption Inonda and because at Pamba, bark cloth was still the daily wear for everybody, so that the ajimo was an important economic tree. With this exception, there would seem to have been no change in the resources of economic trees of local origin.

The three introduced cash crops of significance in the two
241 villages have been rice (pre-eruption), coffee and rubber; in
177 both villages, one man grew a little cocoa. These industries, which developed in intensive interaction with Australian authorities, are perhaps better discussed in detail in a later chapter when these
[243] relationships are analysed. Rice plots were developed in the period between the second world war and the eruption; the plots in both

628 Kohorita), there should be a great many linkages between individuals, and there should be no major dissension, between the villages, for the time being.

I have already mentioned that each village has its own range of "closely allied" settlements: the Sivepe people would always mention Garombi and Binduta, while some families would also mention Sasembata, Kongohambo and Torogota; nobody would ever mention Isoge. But in Garombi and Binduta, Isoge was classified as a "closely allied" village. It was the same in Inonda, which mentioned Ajoro and Musou, while Ajoro mentioned Inonda and Hohota (see Map VIII).A

It is not easy to find a single criterion by which a village may be classified as "closely allied." One approach might be to count the number of informants who have close consanguines and/or affines in the village under consideration. On that basis (see Table 9) the ten "closest" villages to Sivepe would be: Sasembata, Garombi, Awala, Hamburata, Korogowbata (i.e., Binduta), Hojane, Binduta, Isivita, Togahou and Soroputa. Now these are not anything like the ten villages geographically closest to Sivepe. Togahou and Isivita are both situated outside the Waseta tribal district as defined by Williams. The list does not include Kongohambo which is less than one mile from the present site of Sivepe village.

On the other hand, if frequency of social contacts be a measure, the number of contacts with another village is determined to a large extent by geographical distance. Though only three Sivepe informants had first or second degree consanguines in Kongohambo, and only one Sivepe girl, to my knowledge, was married in Kongohambo, there were more distant links which were assiduously maintained and the closer links led to far more visits than, for instance, the links with Togahou, which was 15 miles away.

628 If we compare the contacts between "closely allied" villages
731 as between 1951 and 1967, the most striking difference is the effect of newly formed organizational units in which certain villages are administratively grouped together. Before the eruption, there was a great deal of contact between persons in these villages, through individual kinship and friendship links, but collective contacts remained confined to feasts, deaths and the settlement of
[582] quarrels. Individual contacts, presumably, were as frequent then as they are now, as it is characteristic of the "closely allied" villages that marriages were regularly contracted between them, so that most people would have some affinal or maternal kin in the allied village.

628 After the eruption, however, several modern organizations of
631 a range wider than the village were set up under Australian influence.
731 The building and maintaining of the Sasembata mission station, and the holding of regular Sunday services there, led to regular institutionalized cooperation between the villages. The men built
[794] the school and the hospital together, the children went to school
[797] together, the people worshipped and attended church festivals

A [See Cat. 116, p. End Map 7--Analyst]
B [See Cat. 116, p. 214--Analyst]

628 together, the church council, with representatives from all the
631 villages, deliberated together. This cooperation was a gradual
development occurring over the years under consideration; it will
731 be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[192] was a novel one (see Map IX).[A] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoga, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
village cooperation was a far less significant factor than inter-
578 village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

A [See Cat. 116, p. End Map 8--Analyst.]

Section 3: Other Contacts Within the Sasembata District

628 As soon as we move beyond the closely allied villages, there is a sharp distinction between the behaviour appropriate with kinsmen or regular partners and friends resident in those villages, and the far more cautious and formal behaviour appropriate when dealing with all others. There are far fewer transactions between Sivepe and Isoge or Kendata than with Garombi or Kongohambo, and other close villages. But I believe that the frequency of such contacts fluctuates according to contingencies. For instance, Isoge and Sivepe are now expected to cooperate in both church and [178] local government council activities. This is definitely a somewhat novel experience. One clear example can be given of the changes in attitude this has produced over the last 16 years.

797 When the Sasembata mission station was built in 1952-1953, 794 all the villages contained in the parish collaborated. Miss White's 628 diaries show how this cooperation was organised. Miss White, who was in charge of the station, arranged with leaders from each of the villages what tasks they would be responsible for. For instance, the nearby Sasembata village would build the teacher's house, Garombi and Isoge would finish the hospital ward, Sivepe and Binduta would pull down the old pre-eruption Standard 1-3 classroom building, Duve and Totogota would finish the standard 4 building, Kongohambo build another schoolroom while Hamburata would cut and saw the wood for the desks. (28 December, 1952) Evidently, each group would work one day a week--and each group on a different day, as I understand.

653 The hospital building was duly finished in bush materials 628 and in 1966, while I was in the field, the time had come to pull it down and renew it. The Australian teacher in charge of the [759] station was unable to organise this work. There was, however, a Papuan medical assistant in charge of the hospital who was efficient and popular. On the occasion he treated the sore leg of a Sasembata man who was a carpenter. The man offered to build the assistant a "house," i.e., a hospital. He collected 20 men from Isoge, Garombi, Sivepe, Binduta, Hamburata and his own village. Together they built the hospital in a few weeks, working together every day. Often there were more than 20. When it was finished, he did not think it was strong enough. It was pulled down and rebuilt with more substantial studs.

The main difference between the building programmes of 1952 and 1966 lies in the manner in which the work was organised. In 1952, the largest effective cooperating group was the village. The mission was able to draw on the services of several villages, but only if they worked separately. In 1966, an Orokaiva builder, drawn from one village, was able to control and lead the work of a group recruited from all the villages of the Northwestern half of the parish acting as a coordinated team.

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepe came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepe; the sanitary inspector appointed by the council, who lived at Garombi, came even more frequently, while many Sivepe people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

657 647 177 Employed rather widely over the last decade or so, they have a responsible job, for which the qualifications include a reasonably high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European resources, namely motor transport. They very often have the power [494] to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers came from the Motu-speaking coastal district. One [797] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Motu village and the Motu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

657 Though most of the contacts between village people and the
647 office-bearers arise out of official roles, the local priest, the
177 assistant medical officer in charge of the Sasembata mission hospital, the mission teachers, the council's sanitary officer and others who lived near Sivepe, or temporarily stayed near Sivepe, tended to have at least one or two families with whom they were on mutual visiting terms and who regarded them as personal friends. At the same time, their relationship with many of the other Sivepe families remained definitely formal.

Contacts occurred almost always either in Sivepe or in a village nearby, on the initiative of the office-bearer (if the contact was official). Formal visits by councillors, sanitary inspector, [797] coffee factory officers occurred about once monthly. Contacts with Church personnel occurred almost daily at the mission station, though formal calls by the priest or a teacher to Sivepe were made perhaps once a month, usually in connection with some quarrel that [757] had arisen. The village was most active in its contacts with the mission hospital, several patients presenting themselves daily with [743] minor ailments. Serious cases were often referred to Saiho hospital [758] and most of the referred cases actually went to Saiho. There was a monthly visit from nurses dealing with infant health and expectant mothers; most of the mothers took their babies to be checked and weighed and no objections were made to preventive injections.

[582] There were no cases, in Sivepe, of inter-marriage between local people and Papuans occupying these specialized roles, but in Inonda one man married the mission teacher's daughter. Otherwise, contacts of the type described in this section were sparser in Inonda, as the mission and medical establishment was at Hohota, [232] three miles away, and on a far smaller scale. Inonda did have some direct contact with government over agricultural matters as one man expressed interest in entering an experimental scheme for growing beef cattle. He has adquate land and education, but the scheme had not gone beyond initial discussions by the time I left. [494] Finally, Inonda had an arrangement with a Papuan who was a distant affine and who had a truck with which he took garden produce weekly from Inonda to the Embi hospital. The village people paid this man for his cartage. No comparable arrangement existed in Sivepe. Finally, contact with the officers of the Local Government Council seemed to me less frequent in Inonda than in Sivepe and to generate much less interest. This was no doubt due to rivalries between the village leader and the councillor, but also to a less keen interest in council objectives on the part of the majority of families.

177 The contacts described in this section, unlike the ones discussed earlier, do not characteristically occur in a kinship context. Hence, the contacts do not necessarily occur equally with all categories of members of the community, but when the problems have to do with land or politics or the conduct of village affairs, the married men are principally concerned; in educational matters

177 in its attitude to culture contact, is somewhat homogeneous, Inonda
195 is deeply split between a Christian and a Pagan faction, and it is the Christian faction which is involved in coffee growing, the cattle project, the government sponsored women's club and wage labour whereas outside contacts for the pagan faction are truly minimal.

177 The changes which have occurred in the pattern of outside
181 contacts in Sivepa between the eruption and the present all involved changes in ideology. This is true for the pattern of inter-village cooperation and the interaction with Papuan functionaries no less
[199] than for the trade-store movement. It is an ideology referred to by the Orokaiva as "iji eha," "the new day" and it carries with it an acceptance of Christianity, the objectives of the Local Government Councils and the tenets of economic development. This ideology is as readily expressed by the Christians of Inonda as it is by the people of Sivepa.

177 Not only is this ideology of European origin, but the new types of contact that are being made among Papuans can be traced back, in almost every instance, to white men's actions. Generally, the village man or woman has but a minimal direct contact with the white man and such direct contact as does occur is liable to involve a minimal communication of ideas. Because of the language barrier,
[191] an interpreter is, at the very least, required as intermediary between white man and Orokaiva. Simple, direct communications can be effectively made in Motu which most Orokaiva understand and which many Europeans speak to some extent. Modern circumstances, however, increasingly demand the communication of more complex messages than can be transmitted by that medium, as used at present. More commonly, Papuan members of formal organisations act as middlemen for more complex messages.

It seems best to describe at the outset the pattern as I observed it in Sivepa in 1966-7--the pattern in Inonda and other villages was very similar--and then compare this to the pattern of 1951 and the rather untypical situation in the evacuation camps.
[101] All white men are known by the collective appellation and reference term taupa, but the roles in which taupa are truly familiar to the Orokaiva are few. Most taupa are government servants, traders, missionaries, soldiers. In Sivepa the white government servants most frequently encountered were: the patrol officer, the agricultural officer, the magistrate, the advisory officer of the Higaturu council; higher officials stationed in Popondetta were mostly known by rumour. The head teacher of the local mission school and his wife were both taupa; everyone was familiar with taupa planters and storekeepers. An unusual and very highly respected taupa, indeed a man to whom one never heard the term taupa applied, so well liked was he, was the superintendent of the Saiho hospital who took part in the Christmas dance at Saiho in Orokaiva costume, together with his wife, and who was invited to village feasts at which he ate with

731 retrospective look at the pre-eruption way of life."

Though most of the contemporary evidence tallies with the accounts of Belshaw and Keesing, I should refer to two documents both [784] dating from 1951 which add some subtleties. The first is a short manuscript by Fred Kleekham, agricultural officer, Popondatta, in which he says that "the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings" (of Orokaiva responsible for the murder of missionaries). I tried unsuccessfully to find Orokaiva who still hold this belief. Mr. Kaad had not heard of it and suggested that as Kleekham was mostly working in the coastal region of the Northern District, he may have heard this interpretation of the eruption in that region. In any case, the explanation is worth noting because, once a disaster has been attributed to the anger of a supernatural agency, the causes of that anger are open to many plausible surmises.

797 Father Albert McLaren, while at Ilimo, composed two songs one 533 of which is still widely sung among the Orokaiva and even elsewhere, as it is included in a songbook distributed to primary schools in the Territory of Papua.

1

We were at Sangara
gathered together
With all our brothers
Living together

Chorus: Have mercy on them
Lord, we live in your hand

The mountain was made by Thee
It was not seen by us before;
Lord, when it appeared
We were wounded.

Chorus

O Heavenly Father,
Look on Thy servants
Who are in Paradise
In Thy Glory.

Chorus

When the mountain was shaken
They were watching
With their children
And were buried together

Chorus

797
533

In the land of Sangara
Are the bodies of our brothers
As though they were sleeping
But we shall see them again in the end

Our brothers on earth
Had many temptations
They went up to Heaven
In Thy Glory

The evening was bright
On the hills of Ilimo
But our thoughts
Are always with our brothers

731
784

Father Albert described to me his own experiences with the eruption. He lost his own brother who was with the mission, but he was saved because he had been sent to Isivita for the service on the day of the eruption. He was able to escape by running down from Isivita. When he came close to the village of Sinbeki, the darkness closed in. When the light returned, the clouds were red with flame or fire. When people saw this, he said, they thought the end of the world had come and this cloud was the fire of the Last Judgment that had come to burn them. Nobody knew anything about Higaturu being a volcano; or even of the existence of any volcano. They noticed the trees that were blown up, the branches broken down, the little hills of ash covering the valleys and people thought: this is the end of the world.

Father Albert said the Orokaiva did not use to have an idea of the end of the world; it was taught by Christianity. After the disaster, the people discussed it a great deal; through the disaster, God had shown the people just what was meant by the idea of the end of the world. I asked Father Albert whether he regarded the disaster as God's punishment for sins the people had committed, but Father Albert dismissed this idea: he did not think God would punish the innocent along with the guilty. This conversation took place many years after the disaster and can therefore hardly serve to refute the notion that in 1951, the eruption was regarded as divine punishment.

(797)

Several government officials charged that the Anglican Bishop actually encouraged people to think that the eruption was a visitation of the wroth of God, as they had not followed the laws of the Church of England. They even add a variety of anecdotes, in which the Bishop threatened that if some demand of his (different in each anecdote) was not met, he would make the mountain erupt again. After meeting Bishop Hand personally, I must confess I am rather sceptical about these stories. The Bishop felt that some Orokaiva believed the eruption was a divine punishment. He stated to me that in his own sermons he

731 did not encourage this belief but spoke of the eruption as a natural
784 disaster. Certainly this is how Orokaiva often speak of it today,
especially when they wish to give the impression of being modern and
[797] educated. Papuans close to the Mission invariably speak of it as a
natural disaster.

A group of elderly people in Sivepe, however, produced a quite different theory when I interviewed them in 1966. They explained the eruption by the anger of the god Sumbiripa. I was told that this explanation was the generally accepted one at the time of the disaster. At Hohorita, I was likewise told that the people, at the time of the eruption, thought of the anger of Sumbiripa, though later they learned it had been a natural disaster. My Sivepe informants, however, added
[797] a refinement. Before Sumbiripa blew up, he gave two signs. To the Isivita people and those of the Sasembata district he made a sign of blue fire, which meant that these people would be saved. To the Sangara people, he gave a sign of red fire, which meant that they all died. The reason for his anger towards the Sangara people was that they used to throw hand bombs and shoot guns on the mountain. This theory has the advantage of explaining the facts more closely than the theory of the anger of the Christian God; it is easier to believe that Sumbiripa discriminated between the two tribes than that the Christian God should do so.

731 Before attempting to draw these rather various interpretations
152 together under a common theme, I shall refer briefly to F. E. Williams' extremely cogent discussion on the Orokaiva's general attitude to guilt, for which I myself collected much additional documentation. When an Orokaiva is wronged he displays a state of mind called sisire.
[762] A person who is sisire withdraws, refuses food, destroys his own property, may even commit suicide. By displaying his sorrow, he hopes to shame the person who has wronged him. When a person is spoken to roughly, he will feel sisire, "ashamed." It is the normal reaction to being punished. The purpose is invariably to make the other party feel sorry for what he has done. There is something of that feeling in Father Albert's songs. The main mood is not so much contrition as the hope that the singer will make God feel sorry. This is not quite the same as what we understand by "guilt." All Belshaw's evidence suggests that the Orokaiva people after the eruption felt very sisire.

731 Certainly, the eruption would be followed by a resolve not to
784 make the harsh power that brought the eruption angry again. Whether this power was primarily identified with God or with Sumbiripa is
177 extremely hard to tell; it is even harder to tell whether these powers were viewed as being entirely distinct. Father Albert's testimony strongly suggests that the eruption was treated as symbolic of divine wroth as it was presented in the Bible. I have argued earlier that the Orokaiva look upon the Europeans as a new kind of culture heroes. The new dispensation brought not only new wealth and new knowledge, but also new wroth: Monckton's conquest, the world war, the eruption. It does not seem far-fetched to assume that the disaster was taken as

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers' consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepe and Inonda. At Sivepe, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Waseta and each man took his own rice back home, giving a

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepe, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garombi, a neighbour-village to Sivepe. Here traditional and modern authority were vested in different persons, whereas in Sivepe both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepe and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepe were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1265 people from all parts of the Sasembata district were baptised, including some from Sivepe; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepe was wholly Christian. The most senior man in

this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not "ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepa once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

The health authorities had successfully campaigned against the Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to wash taro before it was given to babies. The washing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

The education system, like the public health system consists of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

872 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Hohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard 2 will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

experiences. The problem remains how ideas bearing on social and economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular. Most of my informants could help me to get Orokaiva texts spelled correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

Teachers are trained both in the mission and the government system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

The educational qualifications of the teachers are one more reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

Teachers' salaries are a subject that has continued to puzzle me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

875 spite of this vast differential, the mission continues to recruit
[465] certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin
875 colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
871 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Sasembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 361 The mission at Sasembata formed a kind of community of its own. From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

895 425 797 It was traditional for villagers also to supply teachers with land for growing taro. At Sasembata, the mission found it hard to get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely [731] Papuan. The eruption led to no defection but to a strengthening of [764] the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst]

this became the core of a new community. At the time of my arrival the European mission sister had been replaced by a Papuan assistant medical officer who, though from another tribal area, strengthened the Papuan missionary group. There were ten teachers, a priest, a deacon and the medical officer, together with their mostly large families--a population that must have been close to 100. Also on the mission station were the boarding school students, adolescents from various districts (their number was around 60), some of them related to the mission teachers. It was customary for the teachers to adopt the children of relatives to be educated on the station under their care. This further added to the Papuan mission station strength.

In this atmosphere the European staff, though indisputably in command, were severely handicapped, as usual, by their lack of information about what was really happening on the station. Not infrequently, I was better informed about this than the head teacher, because the station gossip would flow very easily into Sivepa whereas the mission staff were careful not to tell the head, for fear of inviting instructions they might not wish to obey. The big building projects, such as the hospital, were organised without his knowledge; the workers suddenly appeared and started work; after a few weeks pulled down the building, not being satisfied with it, and started again. They only approached the head when they wanted nails.

To the Orokaiva of the district, the real power struggle was not with the head but with the mission staff. This does not reflect on the head personally; indeed, shortly before my departure, he became a candidate in the Higaturu Council elections and was elected councillor for the ward which includes the mission station, on the votes of surrounding villagers. This very fact, however, indicates that he was not involved in the power rivalries surrounding the station; it was expected that he would be effective in negotiating with the council for water supplies, roading improvements and such like and that, being virtually a stranger, he would not upset existing power relations.

The power rivalries arose because the mission station Papuans regarded themselves as definitely superior to the villagers. The Motu-speakers especially thought of themselves as carriers of a higher culture than that of the Orokaiva--better dances, better loincloths, better headdresses, better pots, and above all, a long association with the mission during which their district had become altogether more civilised than the inland people. It was because the Orokaiva were ignorant that they had to depend on Motu mission teachers.

This boasting troubled the Orokaiva especially because it had some factual basis. Much present-day Orokaiva culture is borrowed from the coast and coastal art and technology is superior in sophistication. Gona was the birthplace of the Anglican mission of the Northern District; hence, the coast has produced a disproportionate number of priests and mission teachers, the most prominent of whom is the Bishop who is himself a Gona man. In these circumstances owners of land surrounding the mission station saw some risks in making

797 177 permanent gifts of land: the populous mission village, if granted a permanent landed foothold, might well become excessively powerful and even oppressive. As long as the missionaries had only temporary tenure, their dependence on the villagers would always remain manifest.

No Orokaiva begrudged the mission teachers their special and high status derived from their office as teachers and preachers. While their duties were mostly with the school, they all gave occasional religious lessons in the villages. One teacher made such a visit to Sivepe nominally once a month, and always after there had been a serious village fight, thus helping the reconciliation of the combatants. There was an even more marked respect for the priest, deacon and AMO. This respect was expressed, for instance, when the village trade store at Sasembata villages, which usually operated on a fairly strict cash basis, was willing to give credit to mission teachers. (Regrettably, some proved slow payers.) There was also a convention whereby fights were promptly stopped when a mission teacher appeared and asked the combatants to stop. (The same taboo exists against fighting in the presence of cross-cousins of the category known as simbo.)

[535] The coastal immigrants, however, aspired in addition to a general cultural ascendance. As one example of this, they liked to introduce among the Orokaiva their coastal dances and songs. The Orokaiva were avid pupils (as their culture history suggests they have been long before the days of Christianity). At the big dance held at the mission station in June, 1967, at least two entirely new dances, both of coastal origin, were introduced, one by the women of Sivepe and Kongohambo, and one by men and women from Waseta. In both cases, the teachers were missionaries from the coast. In both cases, the dance had never previously been seen in Orokaiva territory.

A significant source of power for the mission settlement was its indispensable role in the containment of quarrels not only within but also between villages. Sports matches tended to lead to fights, but they tended to be far more peaceful if they were held on the mission station. This was a place where people had to repress their anger. During my stay at Sivepe, several attempts were made to play matches in the village, but after two serious fights, people agreed with the priest's suggestion to play on the station in future.

Section 2: A Case History: Women's Organisations and the Mission

595 The following brief description of women's organisations in the Sasembata area, and especially Sivepe, will illustrate the general propositions concerning mission-village relationships set out in the previous section. There are no traditional women's organisations among [593] the Orokaiva, though the women do certainly at times act as a solidary [626] group in village affairs, especially when a husband is seen maltreating his wife. The other women will then club together with the wronged

177 of the dead remained basically unchanged, Christian burial rites
[775] and cemeteries are generally used in the belief that they are
efficacious in controlling ghosts. Girls were "shown to the people"
[764] after initiation, preferably on the mission station during the Easter
dances. The kere which was a women's initiation dance, was also
[881] performed on a mission occasion (the celebration of St. Barnabas Day,
in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form
881 of initiation ritual to the Orokaiva? This extramural activity,
177 performed in the dead of night, signified a little more than the
intertribal status rivalry analysed earlier in this chapter. The
[533] text of the songs gives no obvious clues to their significance at the
present time. Though it was made up of at least four or five languages,
due to diffusion of the cycle through the Northern District, I managed
to collect a translation of most of it during a tour of Port Moresby
when we visited knowledgeable members of various Musa River tribes.
The songs evoke a series of phases in a woman's life, stating symbolically
her role in initiation, courtship, marriage, childbearing and feasting.
They are very rich in symbolic content which is not relevant here. But
they contain no message that can be related to any modern millennial
or cargo cult. During a visit to Uiaku, in the Collingwood Bay district,
my wife found that the old women in that village knew the songs but
not the younger ones. This points to diffusion from the Musa to the
Collingwood Bay district some decades ago. All this evidence confirms
the mission teacher's own explanation given to me that he introduced
this cycle in order to keep old traditions alive, in order to give more
strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by
881 the performers especially in the very first dances. They might at that
177 time be doubtful about dance movements and words but not about the
781 demeanour appropriate to the impersonation of spirits. At the very
first practise, even the young girls knew the right bearing, intonation
and rhythm. This was not truly the introduction of an alien ritual;
the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to
771 lend it the ambiguity that was evidently intended. It was not the
177 purpose of the mission teacher to set up this pagan ritual in opposition
to Christianity but rather to bring about its continuity in a Christian
● 797 order. I have already shown in earlier chapters that the Christian
dispensation is conceived as not only a religious but also and importantly
a socio-economic one--that Christianity, wealth and wage labour are
perceived as part of the same complex. If it can be made to accommodate
women's initiation ceremonies (after jettisoning, of course, those
aspects to which the clergy takes exception) future generations will
have the strength of the forefathers. This desire for greater
strength, in a physical and numerical as well as spiritual sense,
was often expressed to me.

Section 4: Social Services

797 The mission contribution to health and education has been set out in the previous chapter. It is of course the mission rather than the government which has pioneered the social services in the Territory. The first contact the Orokaiva had with Western medicine and education was through the mission sisters and the teachers trained, however inadequately, by the mission. The scholarly inadequacies of the mission teachers, though regretted, had not marred the primary aim of the church which was to inculcate Christian values and introduce some acquaintance with the arts of civilisation. If before the second world war, education was not viewed by the mission as a weapon in the struggle for economic development, it must be remembered that economic development of the Papuans was not deliberately pursued as an objective by the government or any other influential group in the Territory.

797 At the present time, mission education poses a dilemma. The government school inspectors express their concern over the generally 871 low academic standard of the smaller mission schools. It has now been established as a rough rule that schools, in order to receive 875 government approval (and therefore financial assistance and examination facilities), should have a ratio of trained teachers of at least one in three. The term trained is defined, for the benefit of the mission schools, as meaning the possession of an A certificate. Over the whole of the Northern District, one in three is approximately the average.

797 There has been no case where the government has actually caused a school to close down. Such action would certainly greatly anger the 871 Anglican authorities, who argue with some force that the government has no practical means to replace the educational service of the missions. It lacks trained personnel, just as much as the mission does. Moreover, it is far more expensive to conduct a government school than a mission school and the government cannot afford this extra expense. Finally the mission argues that for the Papuan, as an essentially religious person, education ought not to be divorced from religion.

875 Meanwhile, the government is rapidly upgrading its own standards of training. It restricts to the utmost the intake of teachers with 657 A certificates and encourages, by means of salary and other incentives, the obtaining of B and C certificates. It is gradually widening the scale of its operations. At the same time, the government is performing a most valuable service by giving refresher courses to practising mission teachers, thus improving their knowledge and giving them a more professional attitude to their teaching tasks. I watched Sasembata teachers who went to these courses which certainly provided much stimulus. In Hohorita, the mission conducted special classes for adults who lacked a standard 6 education. These were mostly attended by mission teachers who thus became qualified to do further study toward a teacher's certificate. The mission conducted some teachers

training schools which prepared students for examinations for these certificates.

Though many men with teacher's certificates and advanced medical training take up positions with the government, where salaries are far higher, there is still a considerable inflow of qualified Papuans into the mission ranks. One reason for this may perhaps be found in the sketch I gave earlier in this chapter of a typical mission station settlement. The educated man who takes up a job with the mission receives his reward, not only in the satisfaction of religious service and the approbation of the mission towards which he is usually obliged for his education, but also an assured social status in a community in which he can feel thoroughly at home and can set up the type of social relationships to which he is accustomed. A government position on the other hand tends to isolate and detribalise teachers and hospital workers and thus be less satisfying socially.

Finally, it should be stressed that the mission is responsible for the education of Papua's educational élite. Martyrs School, once built at Sangara where it was destroyed by the eruption, and now established just outside Agenahambo, prides itself on a higher academic standard than any of the other secondary schools of the Northern District. It is able to choose the most proficient of the products of the primary school system, not only in the Northern District, but in the whole of Papua. One man in Sivepe and one in Inonda had been to this school but neither had continued to the secondary Forms. But the church-educated élite will dominate the Northern District for some years to come, until the graudates from the new University of Papua New Guinea will take over this status.

CHAPTER IV: Acculturation at the Time of Resettlement

My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. Similarly, the inclusion of money in bridewealth is an innovation which, once made in a homogeneous community, is bound to become standard practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

At the time of the eruption no baptisms had yet occurred at Inonda, and only one, as far as I can find out, in Sivepe--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

environment, though he fulfills that role as well, as we have seen in the case of the introduction of the kere. The cultural values he has the duty to transmit belong to the expatriate culture of which his own knowledge is bound to be somewhat superficial. He therefore has three cultures to manipulate, not merely two.

The most senior, and by far the most influential of these mission people was the pastor. Unlike the others, he did not permit himself to gloat over the superiority of coastal culture; in my own interviews with him I found his attitude towards Orokaiva culture to be consistently one of respect. He would point out differences between Orokaiva and his own people, but unlike the deacon and the teachers, he would do so with objective detachment. He felt very much the burden of his role as the local representative of God.

At the time of the eruption, he was a mission teacher, but shortly afterwards, he was sent back to Dogura for some years' training for the priesthood. Upon his ordination, he was sent to Sasembata in 1955. At that time only a small minority in Sivepe and the other villages had been baptised. By 1963, he had drawn almost everyone of his parish area into the church. He told me that this was not a trend peculiar to his parish; in 1963, there had been a great many baptisms throughout Orokaiva territory, and pagans had become quite a small minority.

A paradox in his position, to which I have already referred, was that though people were very cooperative in church work, attended his services, his special meetings, provided labour and materials, accepted his adjudication in quarrels, had him bless their guns and always showed him the highest respect, they would not give him land even on a semi-permanent basis. I have explained what I think to be the reason for this, but it was hard for the pastor to accept. He was threatening to leave and go to another parish where he could get some land. To him this was as symbolic as to the Orokaiva: it seemed unjust that after doing so much and being so familiar with the language and culture, they should insist on treating him as a stranger. Indeed, if he had settled as a private person, it would have been very harsh.

In Inonda, there were currently no key personalities of this category. Religious services were conducted by a local man. The retired Sangara mission teacher, however, had definitely been a key personality from the time of the eruption until his retirement in 1959. Though he was an Orokaiva, he belonged to a tribe which had been the most dangerous hereditary enemy of the Inonda people and before whom they had had to flee from their traditional territory around 1910.

The teacher, whose baptised name is Moses, was called Kusuale at birth, his namesake being his father's father. The latter, so I was told, was named in "the old way": it was the name of an enemy who had been recently killed. Moses went to school, was trained as a mission teacher in Dogura, and took up teaching in 1922 or 1923. He taught in his native district (Sangara) until the Japanese invasion, after which he closed school and went into the bush with the rest of

177 the people. When the Japanese were gone he went back to his old village;
●797 around 1946 he took over a school at Sewa, established after the war in a hitherto heathen area. Moses told people to build school rooms, houses for the teachers and a church. The people worked hard on these projects because they wanted to send their children to school. The school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred by the Bishop, first to the mission station at Gona, later to Togahou. About 15 months later, he was posted to Inonda, following an appeal from the Sewa people to the Bishop. This group had not had schooling since the eruption. At Inonda, Moses asked for a house to be built for him as well as a school. His pupils included children not only from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.
[582] Two of his daughters married Inonda men, one married an Ajoro man. When the Sewa people returned home, Moses stayed with his affines. With regard to gardening land, he is essentially no better off than the pastor at Sasembata. His Inonda affines lend him gardens from year to year. He also plants gardens at Hohota, owned by affines and a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired from teaching in 1959, his status soon dwindled. Crocombe (1966) has published an account of an initiation feast he held for his daughter's son. In keeping with his former role, this was given a highly acculturated flavour. It was on a larger scale than most of such feasts; Crocombe thought this was "to reaffirm his prestige and reinforce his stake in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the surrounding villages and who thus, in the context of culture change, must certainly be ranked a one-time "key personality." Yet his present status is demonstrably marginal. It is better than the Sasembata pastor's because he has affines to call upon, but the obligations of affines are strictly circumscribed: marriage gifts, help, if necessary sustenance. All these have been well provided; the affines have been good, even generous. Nor need the pastor fear for his descendants: they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are
[431] not regarded as an appropriate reward for missionary services rendered by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under consideration there were resisters as well as promoters of change. Among the resisters was undoubtedly Isemba, leader of the Seho clan, who died (unbaptised) in 1963. While this man was alive none of his clan joined the church; he did, however, agree with school education.
[777] I was not able to learn much about him except that he was most knowl-
[754] edgeable about the holding of feasts and their magic and that he feared

177 his powers of black magic would be undermined by the church if he
[797] joined it. It seems likely that it was in part his influence which made Seho less inclined than Jegase to make outside contacts.

One of his sons, however, did leave the village to join the
[754] A. P. C., returning at the time of the eruption. It was this son (the second in seniority) who was chosen by Isemba as his successor to the leadership, as he had fallen out with the oldest one.

177 This son, baptised under the name of Lawrence in 1963, is now
623 about 50 years of age, proud and withdrawn, and is both the feast-leader and the "committee" of Sivepe. His land holdings are relatively extensive; he has lent some of them on a year-to-year basis to mission
[429] personnel. He refuses to sell any of this land to the mission nor will he lend gardens to the mission as organisation. He may help an individual teacher; when that teacher leaves, the land reverts to him. At one time a teacher left just before the taro was ready for harvest; Lawrence took the land and the taro; if the successor of the departed teacher felt upset, he regarded this as a problem for the mission. For Lawrence, this was a grave political issue: if one such land transfer was agreed to, he felt this would effectively mean permanent occupation by the mission of all areas loaned by him.

In spite of appearances, this implied no anti-mission attitude. Lawrence was most interested in the benefits the mission could bring and supported the move of Sivepe to a location on Seho land, six chains from the mission, partly because he liked to be close. But he pursued a careful policy of balance of power. The same pragmatic approach marked his relations with government. He was among the first to acquire coffee trees and Malayan rubber trees; he was, as I have already said, a staunch advocate of the government's village improvement policies, but when the patrol officer called his one concern, as "committee" was to see him happily and speedily on his way again, preferably without incident.

During the year, the women's club wanted some land for their club house. He was on friendly terms with the secretary, who was his elder sister's grandchild and offered an ideal elevated site, between village and mission station which would have made the village entrance most impressive. He was a man who thought of things like that.

Lawrence has nine children, three married and three single
[665] daughters and three young sons. One of the daughters, rather against his will, married the most acculturated of the younger Jegase men; if such a thing as factionism existed at all in Sivepe, he and this younger man were clearly cast in the roles of opposing leaders. The second daughter married into Kongohambo, a mile from Sivepe. The third married a Smara man employed at Ilimo, but this man was said to maltreat his wife. Lawrence went to Ilimo and brought her home; this was regarded as quite proper even though bridewealth had been paid.

623 Lawrence was comparatively well off, largely because he was a
177 good coffee producer, but also because he received bridewealth from
471 three daughters, continuing gifts from his sons in law and from the

was much less marked when I took him with me to Inonda. He was a bachelor who had a penchant for courting girls he was, for some reason, unable to marry. While we were in Sivepe, his girl friend, though belonging to the Seho clan was rather too closely related to him on her mother's side. Her father was Lawrence's elder brother and the Seho clan generally was strongly opposed to the union; they therefore treated the affair as incestuous. The mission had wanted to send Leon for training in hospital work. He had been doing some of this at Sasembata, and it would have suited him. His father opposed the idea, considering that his knowledge of English, etc. would be too useful to lose. When I came, his calculation proved right, for Leon's presence and employment drew me, for some months, into a position of much dependence on that family. Leon was the only young man who did not join in the drum dances, and who never sat with the other men. Perhaps, his bachelor status partly explains this, but another bachelor of the same age did not keep away to nearly the same extent.

One difference between Inonda and Sivepe was that in the former place there was only one family through which adaptive ideas and decisions were transmitted to the community, and in practise only one man, whereas in Sivepe, there was a variety of influences: the Seho leader, the two older, and in many ways totally different older Jegase leaders, and several younger people each with their own fund of experience which helped them to interpret a changing social situation. This difference results not only from a different organisational pattern (based respectively on the "big man" and the equality ideology) but also from the mere difference of size. It may be argued that some at least of the multitude of avenues through which the modern world was made accessible to Sivepe was due to post-eruption measures in the resettlement villages. Of the leaders discussed here, however, not a single one (except the two young interpreters who were scarcely leaders) was educated in the post-eruption period. They may have been influenced by their close association with the mission; if so, it is hard to say to what extent this association explains their present attitudes. One may safely say that the association with the mission at the present time reinforces the change-directed ideology of Sivepe leadership.

423 dance in Sasembata. But they enjoy very much better conditions than
591 are usual for men who marry uxorilocally.
582 The mortality among the elderly at the time of the eruption was so great that many traditional customs and myths were lost among the Sangara with the elders who knew them. For instance, rituals carried on at birth in Sivepa are no longer practised in Hohorita. For the
731 rest, I did not see many differences between the villages in level
165 of acculturation. Housing conditions in Sivepa were better; money was more plentiful at Hohorita. Dances were far more carefully
177 practised and more expertly performed at Sivepa. Clearly, the Hohorita
184 people spent more time at their coffee; this was given as the reason for neglect in other matters. It may well be that cash-cropping above the level noted at Sivepa has necessary consequences of this sort unless technological changes occur. Ideologically, Hohorita is--as I demonstrated--more deeply involved with the concepts of the New Day than Sivepa.

Though no groups have left Hohorita since it was founded, the
621 co-residence of these many clans does make for a certain instability.
614 The leaders of the Oripa clan group told me that just after the eruption very few Oripa were left, but as the clan was becoming more numerous, it was beginning to think to establishing its own village. Besupa was harbouring similar thoughts. Both these clans were minority clans in their part of the village and this inevitably implied some subordination. In Sivepa, the fusion of Jegase and Timusu had established a fairly equal balance with Seho; as both clan groups were about equal in strength if the greater resources of Seho are taken into account. In Hohorita, however, the supremacy of Horeopa (and Sehopa in the back section of the village) could hardly be challenged. The councillor and the government are opposed to such fission and overcapping organisations such as the credit union, the women's club, the church, the school, etc. may gradually set up a firm esprit de corps. The importance of tree-crops (as opposed to shifting cultivation) in the Hohorita economy might be a further disincentive to the migration of groups to another village, but Oripa has in mind a new village site which would actually be closer to their coffee gardens.

Section 6: Conclusion

177 In this study, we have found three complex forces, acting as causes of changes, to be intertwined: forces acting throughout Papua and New Guinea to promote socio-economic development, the effect of the relocation of certain communities near Mount Lamington after the eruption, and the physical and cognitive effects of the eruption itself. The last-mentioned of these forces was far more disastrous for Sangara
731 than for the rest of the Northern District of Papua. In tracing the causes of culture change in Hohorita, we have to give especial emphasis
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●[777]

to the helplessness of the survivors, the extraordinarily strong influence that was exerted upon them immediately after the disaster by Bishop Hand (resulting in many becoming mission teachers, the building of a church of especially high quality, scrupulous school-going by the children and other signs of compliance), stronger pressure than usual to succeed in skilled occupations, a more profound reappraisal of ideology under the impact of disaster as well as church influence, and finally the availability of more cash-cropping land than at Sasembata, as a result of depletion of the population.

In Sivepe, where little loss of life occurred, the pattern of changes differs from that in Inonda, but the difference may well be largely explainable by the superior facilities introduced, especially by the mission, into the Sasembata area as a response by the Anglican authorities to the disaster.

The paradox of Papuan culture change is its dependence on migration out of the rural areas. The striking changes of ideology seem to result always from travel and contact between the men who have been away and those who have stayed at home. In the district itself, the progressives are always those with outside experience. In Hohorita, these progressives had more varied and deeper experiences (perhaps because the home base was destroyed) and those who were urbanised continued constant contact with the village. Rural development has opened up some new economic opportunities, and the improvement of school services is opening up further opportunities, but it is only the returning traveller who understands these opportunities and leads his people in realising them. Relocation provides opportunities for village renewal and these opportunities are seized upon by the natural innovators within the villages (the returned migrants) to hasten the coming of the New Day.

Map XI

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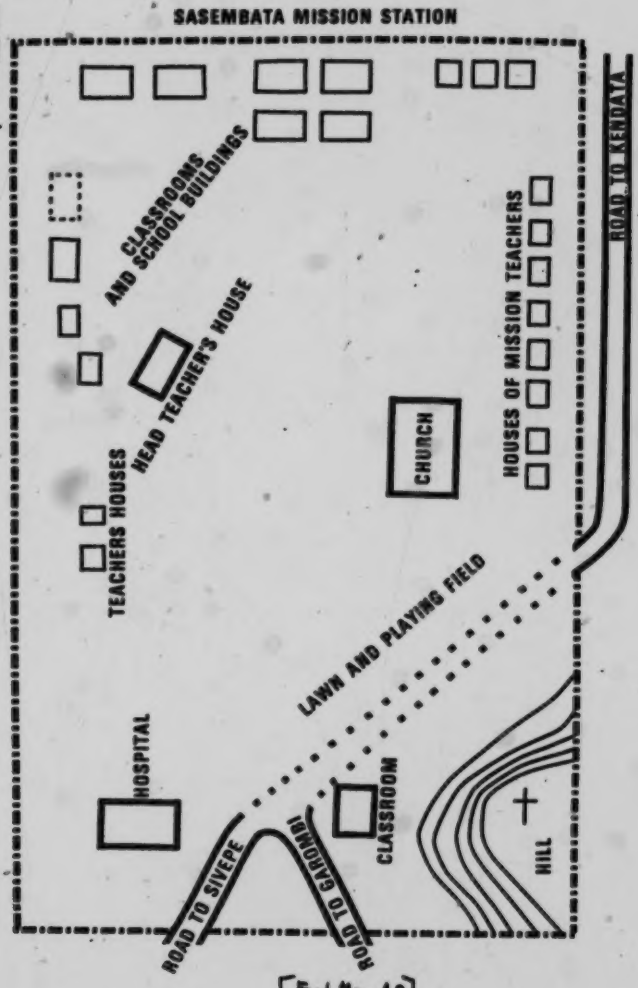
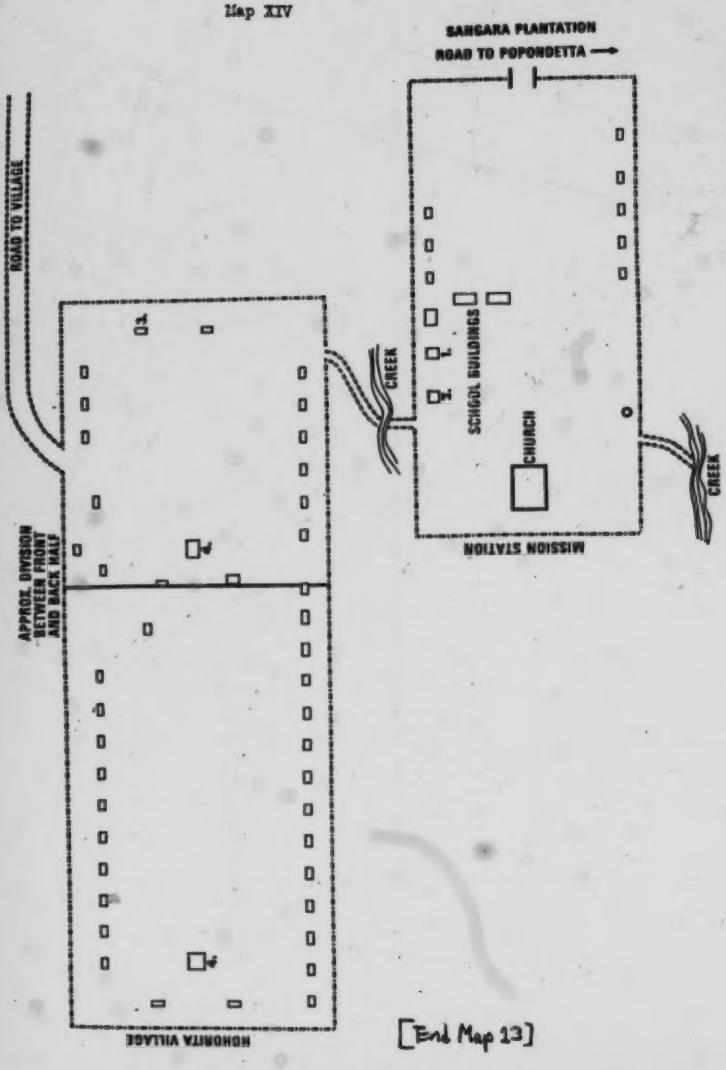


[End Map 10]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

Map XIV



[End Map 13]

or even force Orokaiva settlement patterns from the traditional scattered hamlet system to village or even town living. Another tough question was how far Government should step in to supervise matters of economic and social welfare, including elementary schooling which hitherto policy had left almost wholly to the Anglican Mission. The majority of the mountain Orokaiva are now adherents of this Mission, the only body operating in the area. Questions relating to land tenure, social group realignment, leadership, law and order, and other matters involving local custom had also to be faced, especially in the course of the first experiments in resettlement.[4]

Officials and Mission workers reported that the explanations of the "cause" of the disaster given to them by Orokaiva, were, in general, of a supernatural nature: "God" was punishing them for "sins" such as "not supporting Mission and Government plans for development," "not building new churches as requested by the Bishop," or "not helping the Allies enough during the war." However much these may have pleased the hearers, the fact seems to be that there were resulting strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life.[5] Officials who know the Orokaiva considered that these feelings undoubtedly helped to foster the extraordinary degree of cooperation and orderliness in situations where large numbers of people were necessarily herded together and shifted around without benefit of the traditional niceties and proprieties.

This raises the whole problem of interpreting the overt events here summarized in terms of their cultural and individual contexts. In discussing theory relating to the dynamics of change and resistance to change, the writer, along with others, has referred elsewhere to the general tendency for peoples to be pre-conditioned by the characteristic sets of their culture and personality norms, to be differentially "adaptable" or responsive to change in the face of new experiences.[6] The impression gained in this case is that subject to inevitable factors of shock and disorganization, the Orokaiva were culturally predisposed to respond to the traumatic experience here described with something approaching maximum adaptability.

The mountain Orokaiva are shifting cultivators, and supplement their staple food, taro, with sweet potato, yam, banana and sugar cane. Flesh from domestic pigs, chickens, dogs, and wild game is what Williams calls "a dainty rather than a diet." "Fresh ground," says this ethnographer, "is continually cleared for new plantings" in the typical pattern

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4. These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

5. Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

6. F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

241 of "dry" gardening, with fire and the digging stick as the essential tools, and either long term rotation of previously occupied areas or breaking in of new forest land. "The immediate family . . . is a self sufficient unit" and "the Orokaiva words for 'work' and 'garden' are one and the same." Consistent with this mobile economic base, settlements are rarely more than hamlet size, with "hardly more than a dozen houses" on the average. Materials for housing are readily available, so that residence can be easily shifted.

The hamlet is based normally on patrilocal-patrilineal principles of organization, with a known strong tendency for new groups to form by "hiving off." Clan affiliations are reckoned from quite recent ancestors, so that at times a given clan may all be in one settlement, though more usually scattered through several closely related settlements. The generally monogamous family units are under the "immediate authority of the father," while the affairs of the local living units are under loose supervision by the hamlet and clan elders, centered on a "men's house" and working together, usually with one strong senior man as "leader." Personal property consists of mobile goods such as tools and utensils, clothing, and body ornaments.

In spite of ethnic similarities over a wide region, Williams speaks of the Orokaiva as being a "more than usually quarrelsome and disunited people"—a strong statement to make in the New Guinea setting. Their pre-pacification history was marked by "feuds, dispersals . . . a veritable whirlpool of strife, migration, and counter-migration." Beaver, too, refers to their "turbulent and restless life . . . migration was, in the main, a matter of attacking, fleeing, and pursuing." Supernatural weapons in the form of sorcery were especially feared. Even for Papuans, the Orokaiva proved to be unusually hostile and resistant to whites. Women were often seen accompanying the war parties, carrying food and weapons, and sometimes joining in fights. Williams goes on to say that while the "elementary small sympathy-groups" (the local kin and settlement units, and to a lesser extent the dispersed clan units) were tightly knit, their external relations were precarious. "There were peacemakings or truces, but the truce was always a fragile one, and no (settlement) lived in permanent security." "Hiving off" occurred sometimes as the result of a "quarrel and the fear of retaliatory magic," but more often it was "simply the lax method of horticulture which necessitates the clearing of many areas in succession and sometimes a temporary settlement on a distant site." Another factor could have been food scarcities which tend to occur in exceptionally dry southeast winter seasons. During this period, north and west Lamington area is in a rainshadow zone, and people may have to scatter out to live on wild roots and fruits. The implication of this is that even the excision of the 4,000 persons from the Orokaiva group who were killed involved no extensive shattering of valued ties.

Williams and others judge that with the modern pacification, the Orokaiva have tended to disperse in even smaller living units than before. This appears to apply particularly to the relatively densely populated Lamington slopes, though a few instances of larger aggregations approaching a village type also occurred, particularly as a result of Mission influence. Over against this greater dispersal, the people have

problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission teachers started elementary vernacular schooling in the camps.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Yali cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manseren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 128-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

the Territory to the point of self-sufficiency and dietary adequacy and one on which almost no progress has been made. Theoretically the problem does not look difficult, in view of the characteristic adaptability of the Orokaiva, the loose group organization which involves no elaborately structured hierarchy of vested interests in the *status quo*, and the freedom of families to experiment as they wish as more or less independent production units. But here, as in the case of shifting gardeners in many comparable situations, the problem is one of motivation, of incentives. Among the Orokaiva, for all the enthusiasm they have engendered, past religious and cooperative movements have not struck seriously at the rotational basis of cropping, or introduced fertilization and other soil-maintenance techniques. The territorial Department of Agriculture is desperately short of manpower and it is not likely that it can afford to station a permanent cadre of technical personnel to guide and supervise this still quite remote district. It is also very doubtful that the Anglican mission could do so. Nevertheless, at the centers referred to above, the present dynamic situation justifies giving encouragement and aid on a voluntary basis to any families and individuals who may wish to try out sedentary cultivation, market saleable products, and on a cooperative basis of organization where desired. Such a non-compulsive widening of the range of cultural alternatives seems in line with a current strong stirring of ambition among some of the younger, schooled Papuans to adapt to the modern world and have a greater voice in the affairs of the Territory.

To the extent that this paper presents a correct interpretation, its implication is that this catastrophic shock has produced something approximating a minimum degree of cultural trauma, considering the demographic dimensions and the destruction and death involved. Predispositions in Orokaiva culture and personality favored relatively easy "adaptive" behavior in the face of crisis. The remarkably effective relief measures taken by the Australian authorities helped materially to cushion the situation. Any attempt by Government and Mission to use the emergency to manipulate such a people and culture arbitrarily in drastically new economic and socio-political directions would seem foredoomed to failure, and would generate unwanted tensions. Yet opportunities are clearly present for economic and other stimulation and education of a voluntary and permissive type. Considered as a case study in cultural dynamics it is illustrative both of internal readjustment in a culture where a sharp shock and break in continuity occurs, and of the implications of attempted control and direction in culture process by a dominant outside authority.

[p.22-B]

rather than security was the main motive. Villagers were able to use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hospital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[8]

My research included three intensive studies of single villages. The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 persons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[9] This third clan group returned to Sivepe early in 1952. Sivepe was rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was concerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

ject of the wrath of the mountain. There are, however, two interesting differences. The first is that in the Orokaiva explanation we find an opposition between two tribes (Waseta innocent; Sangara guilty). In the Yega explanation we find an opposition between ethnic groups (Papuans of the Northern District innocent; Europeans guilty). This classing together of the Papuans of an entire region is a departure from traditional tribalism. It reflects an ideology aimed at maximizing indigenous power by the establishment of an intertribal regional coalition.

The second difference lies in the role of Sumbiripa (or whoever the angry deity was) in the two explanations. In the Orokaiva version, the transgression was against the sacred domain of Sumbiripa and thus of a familiar traditional type. In the Yega version, the punishing God assumes a strangely political role in taking the side of the Papuans against their enemies, the whites. The crime of the whites admittedly took place near the mountain, though not in the sacred domain. Sumbiripa was never, in any other context, described as a general defender or avenger in support of "his" people. Indeed he seems to be playing a somewhat Jehovah-like role in this tale. We are here in the sphere of the Cargo Cults or millennial movements rather than in that of traditional Melanesian religion.

Meanwhile no mention is made of the 3,500 Sangara who died in the disaster. This would have weakened the argument, for any reference to the Sangara victims might have suggested that they too were worthy of punishment. Though the Yega probably do think so, it would not have been expedient to say so when an intertribal alliance was contemplated. Here we are obviously closer to ideological rhetoric than to philosophical speculation.

The third explanation of the disaster is the one that has attracted the most attention by previous writers. Belshaw, who met Orokaiva survivors a few weeks after the eruption, records the following observations (1951:242):

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them betrayed missionaries to the Japanese. [Others again mentioned] lack of cooperation in Mission and Government plans for development. . . . This sense of guilt is a most important factor in resettlement attitudes.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Keesing (1952:18) agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life."

A great deal of evidence supports Belshaw and Keesing in their suggestion that in 1951 the Orokaiva ascribed the eruption to the anger of the Christian God and thought they had brought this anger on themselves by various transgressions. Orokaiva informants reported that this view of the eruption was widely current at Ilimo evacuation camp. It is reflected in a song about the eruption which is still sung by Sivepe youth. This song declares the omnipotence of God and man's absolute dependence on him. It also attests to a wholly Christian eschatology: the abode of the dead is Heaven, where the living will later meet their brothers who died in the eruption. The song admits the guilt of the dead ('our brothers on earth had many temptations'), but the strongest emphasis is on the suffering of the living through the loss of their 'brothers'. Unlike Job, the singer is far too polite to contend with God and criticize his actions. He does not openly and clearly identify God as the author of his sufferings, but God's responsibility is subtly implied.

The rationale of this explanation is not obvious. Quite clearly those who believe that God and not Sumbiripa was responsible for the disaster have some belief in Christianity. In response to contact with the white man they have developed an ideology supporting the work of the missions. But how do they explain the eruption? It seems very clear that in 1951 many explained it as retribution for their lack of respect for the Christian God. But Orokaiva Christians interviewed in 1966 and 1967 rejected this explanation as resting on a misunderstanding of the nature of God. Father Albert, who composed the song referred to above, was one of those questioned. He said that many of those who died in the eruption were little children. He did not think God would punish the innocent along with the guilty. On the other hand, he did ascribe a divine purpose to the eruption. Father Albert said the Orokaiva used to have no idea of the end of the world; this notion was taught by Christianity. After the disaster the people discussed it a great deal: when they saw the sky darken and people dying from the blast, they thought the end of the world had come. God had shown them what the end would be like. In other words,

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Father Albert thought that God sent the eruption as a sign. Orokaiva Christians would generally agree with this view, though none of those interviewed formulated it so clearly.

From the viewpoint of this study, the question whether the Orokaiva considered the eruption as a punishment or as a sign is perhaps not a crucial one. In either case, whoever believes that God was responsible must also believe that a dire fate awaits anyone who fails in his obligations to the mission.

Comparing the three explanations surveyed so far, we note that the Christian explanation, like the Yega one and unlike the Waseta version, attached no significance to tribal divisions. God (like the Sumbiripa of the Yega) makes no distinction between tribes, but he does distinguish between the disobedient Papuans of the region and the administrators and missionaries these Papuans failed to obey. The former are guilty but not the latter.

Christian and Yega theories are opposed as to who is the guilty party. Indeed, the Christian explanation omits all reference to European deaths on the mountain, just as the Yega version suppressed the fact of the Sangara victims. The reason is no doubt the same: rhetoric demands that one should not in the same breath advocate a coalition with the white power bearers and admit that the latter suffered many deaths in circumstances implying their guilt.

With regard to connotations, all three systems differentiate between either tribes or ethnic groups that fell victim to the disaster, even though such differentiation is insignificant for explanatory purposes. If we use a minus sign to designate the social groups classed as guilty and a plus sign for the groups classed as innocent (though in fact the latter, too, suffered serious losses), we find:

	Victims		
Explanation	Waseta	Sangara	European
Waseta	+	−	omitted
Yega	+	+	−
Christian	−	−	+

I shall briefly mention a fourth system, though the explanation it contained was put forward by a small minority and was but feebly believed. Several Orokaiva close to the mission maintain nowadays that the eruption was due solely to geophysical causes. The mission authorites put forward this explanation to counter criti-

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

whose contact with this aspect of European culture heretofore had been rather slight. The impact of these intensive programs should not be overestimated, however. For people whose world had been shattered by disaster and relocation, adult education was, according to administrators involved in the program, hardly a major concern. Belshaw (1951) expressed the view that the villagers would agree to almost any reform in their villages, as long as they would be allowed to leave Ilimo quickly and return to their land.

Nonetheless, the terms of the exchange relationship between administration and mission on the one hand and the Orokaiva on the other had become a great deal clearer and more profound. The Australians had made gifts and had stated what they wanted from the Orokaiva in detailed, explicit terms. Furthermore, this had been done under the shadow of a calamity which was interpreted by the mission as a sign of God, if not God's punishment, indicating the dangers of not satisfying the Orokaiva's new exchange partners.

The administration has leveled much criticism against the mission for promulgating the theory that the eruption was a visitation of the wrath of God. Numerous instances are quoted of ecclesiastical blackmail: the bishop allegedly threatened to blow up the mountain a second time unless he was obeyed. The bishop denies these allegations and claims to have discouraged the belief that the eruption was a divine punishment of the (largely unbaptized) Orokaiva. He said it was the Orokaiva themselves who had this idea of retribution.

To explain the Orokaiva idea of the anger of God found in the preceding pages, I have brought together a somewhat haphazard collection of signs which make no sense if arranged in a synchronic pattern. They are a sequence of transactions which took place within the colonial macrosystem and were selected on no other grounds than that they were commonly invoked by Orokaiva in discourse about the 'new age'. Soldiers on punitive expeditions, physical punishment at the plantations, the warm exchange relations with Allied troops, the local government councils viewed as a gift from the whites to the Papuans—all these are random selections from history and owe their place in the analysis of the metalanguage to the fact that the Orokaiva commonly used them to signify the opposition 'old order/new age'.

Earlier in this section, I explained the idea of the 'anger of Sum-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

121 construct a higher-level system which accounts for all the explanations taken together.

131 Let us first survey the relationships between the explanatory
809 systems on the social level. They do not logically contradict one
184 another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* [776] Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial [794] cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

131 None of these reasons would have sufficed to kill the movement
657 had there been, in the 1950s, a strong opposition to the adminis-
794 tration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

1961
1964
1967

FIGURE 1 Example of Orokaiva Explanation of Anger of God

PARTNER	OBJECT OF SOCIAL EXCHANGE	OBJECT OF MEDIATION	OBJECT OF SOCIAL EXCHANGE	PARTNER
God	Offer of Relationship	Mission seeks entry.	Acceptance of Relationship	Orokaiva
	Development of Relationship	Welcome and material help.	Neglect of Relationship	
		Gifts, education, medicine. Claim for church allegiance.		
		Inadequate material help and church allegiance.		
		Exhortation to greater participation.		

[p.328]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

[p. 329]

781
784
787

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

never occurred. The vast increase in the number of baptisms indicates a significant development in the pattern of transactions in the exchange relations with the new god.

The effect should not, however, be overestimated, as the environment and the socioeconomic situation did not change significantly immediately after the eruption. No socioeconomic transformation occurred because of the eruption or the belief that the eruption itself was divine retribution for noncooperation with the government. On the other hand, significant social, political, and economic changes did happen within ten years or so of the eruption; and when these changes occurred, they were interpreted in a manner consistent with the Christian explanation of the eruption.

Let us now consider the relationship between the various explanations on the religiophilosophical level. Perhaps the best starting point for our analysis is our apperception that the three religious explanations have to do with political strategies—that is, with the maximization of power. It may be enlightening to look at these strategies in terms of the Orokaiva's own general ideas about power. The Orokaiva word for 'power' is *ivo*, a mana-like concept envisaging 'power' as derived from spirits and bringing success in difficult ventures by overcoming misfortune, obstacles, and enemies. Misfortunes are explained by 'power' coming from a hostile source—for instance, from one's human or spirit exchange partner during a cycle of negative reciprocity.

The first of these three explanations postulates the existence of a negative exchange cycle with Sumbiripa, so that the people's 'power' depends on placating Sumbiripa and avoiding his anger in the future. The second explanation postulates that, in fact, the disaster was a restoration of the 'power' of the Papuans, as it punished Europeans who hanged Orokaiva ambushers. The third explanation, however, raises some difficulties. The restoration of 'power' here seems to depend on obedience which must be shown to the mission and the government.

This question of obedience is perhaps more one of degree than of essence. Students of religion (such as van der Leeuw 1938) distinguish between relations of "manipulation" and "obedience" which may exist between man and the gods. In this sense the relations with Orokaiva deities, including Sumbiripa, would tend to be manipulative. On the other hand, the relationship with the Christian deity involves far greater and far more diffuse demands,

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.
[824] Some Orokaiva have been employed by Europeans as carpenters;
these men have certain skills upon which a community draws when large
community buildings (for instance, the hospital at Sasembata mission
177 station) need to be constructed. The trained carpenter leads such
335 enterprises in the role of expert. There was one such man in Sasembata
village; he, like most others of his type, learned his skill in
European employment and not in one of the small adult education
ventures which the administration has sponsored from time to time (the
adult education classes at Ilimo camp were probably the first of this
type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but
rather with an increase of understanding of the world outside. While
before the war, only a small minority had school education, the
Anglican Mission spread its operations to several new stations,
including Sasembata, after the war. After the eruption, the scope of
education was again greatly extended and it could be said that the
eruption marked the beginning of universal school education in the
majority of Orokaiva villages. The Sasembata station began to draw
virtually the entire child population of the surrounding villages,
and most students now follow a five or six year course. While this
development had been planned ever since the war, it may be significant
that regular school attendance of all the villages in the district
was experienced for the first time at Ilimo, where a school was
conducted for the whole evacuee child population, and adult classes
as well. It is the objective of present school programmes, as far
as I can see, to make the population literate and the increase of
[212] literacy is a major aspect of acculturation over the period. Literacy
has certainly progressed to a point where letters written in Orokaiva
to any family in Sivepe can be read and understood with the help of
at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation.
In the Orokaiva language, there are no numerals higher than 2; hence,
it is the invariable practise to use English numerals when speaking
[192] the Orokaiva language. The numerals are, in fact, among the main
English linguistic features that have been borrowed. They are used
with remarkable frequency; the number of coffee trees, the value in
pounds of trade goods included in a bride price, the calculation of
money prices, even the number of brothers or men who together played
some role in a mythological tale (a distinctly contemporary touch,
this)--all these phenomena show that "numbers" have become an integral
part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

Appendix 4

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Standard weights and values used in the exchange pattern data

Weight (lb)

(a) Garden and forest produce:

Areca, 24 nuts	1
Banana, 1 hand	2
Banana, 1 bunch	25
Breadfruit, 1	2
'Cabbage', 1 bunch	0.5
Coconut, dehusked, 1	1
Corn, 1	0.5
Hingi, 24	1
Manioc, 1	5
Pandanus fruit, 1	5
Pawpaw, 1	2
'Pitpit', 4	1
Puge, 24 nuts	1
Pumpkin, 1	3
Pineapple, 1	2
Sago, 1 ball	0.2
Sago, 1 bundle	20
Sweet potato, 1	1
Sugar-cane, 1 stick	2
Taro, 1	2
Water-melon, 1	15
Xanthosoma, 1	1.5
Yam, 1	1.5
Food, various, 1 plate	1
Food, various, 1 dish	3
String bag, any produce, 1	35

(b) Game:

Bandicoot, 1	8
Cassowary, 1	120
Cus-cus, 1	15
Flying fox, 1	1.5
Pig, 1 (therefore, head - 30, chest - 30, leg - 20)	200
Pigeon, 1	.2
Tree kangaroo, 1	30
Wallaby, 1	55

(c) Various:

Firewood, 1 bundle	20

435

Monetary value (cents)

(a) Food:

Dumplings, 1 plate	2
Fish, 1 lb tin	20
Flour, 1 lb	10
Lime, 1 lb	20
Meat, 1 lb tin	30
Meat, various, fresh/smoked, 1 lb	20
Meat, pig, fresh/smoked, 1 lb	10
Rice, 1 lb	10
Rice, 1 plate	2
Rice, 1 pot	20
Rice and fish, 1 plate	5
Salt, 2 oz	3
Tea, 1 pot	10
Tea/coffee, 1 cup	1

(b) Goods:

Coconut basket, 1	50
Sack, 1	50
String bag, 1	$2.00

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

[p.82 is blank]

512 [178] with the external agencies, but also for the customary subsistence tasks. Quantitative analysis reveals significant patterns to be existing at two levels - between the days of the week and within each day.

(i) The weekly pattern. The Sivepe people speak of Wednesdays as 'Mission day' (for work at Sasembata mission station), Fridays as 'Council day' (for road maintenance and cleaning the village) and Sundays as a day of rest and attendance at church services. Of the remaining days, Monday and Tuesday are devoted to cash cropping, [805] and Thursday and Saturday to subsistence. They claim to have been directed by the Higaturu Local Government Council to work according to this routine and while it is not strictly adhered to, the concept of the week is firmly implanted in the Orokaiva mind (see Table 6:9).

512 461 [196] The basic household tasks and harvesting of subsistence crops are sustained throughout the week with little variation in time allocated, while others tend to be specific to certain days. Sunday (with Wednesday) has the shortest activity day, of 5.6 hours, this being largely a reflection of the Church's insistence that it be treated as a day of rest. Well over half the day's activities are devoted to attendance at church services, the harvesting of foodstuffs, and household tasks. Two other categories of activities assume a greater level of importance on Sundays: social obligations, particularly informal visiting, and other subsistence activities (house construction and the preparation of tools and equipment). Both are connected with the fact that, following church, much of the day is spent in the village. Although church and council work are largely restricted to their allotted days, little time is actually devoted to them and they do not appear to modify substantially the activity patterns for those days; similarly no direct relationship can be drawn between time spent on cash and subsistence cropping and the pattern of activities on the days ascribed to these tasks.

[527] The marketing of subsistence crops is restricted to Thursdays, the day of the Saiho market, while the time devoted to social obligations reaches a peak on Fridays and Saturdays when 'parties' are normally held. Sundays apart, however, the daily variation in activity patterns is not great. The total range in activity time for all the days is only 0.5 hours but on Sundays a smaller proportion of the time is directed towards productive enterprise - only 56 per cent of the total. The other days, with the exception of Friday, fall within the range of 73 to 84 per cent. On Friday only 61 per cent of the time is spent productively, probably because garden tasks are disrupted by council work in the early part of the morning. In general where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. This is apparent in the case of lengthy tasks such as clearing and sago-making, which are almost entirely restricted to those weekdays free of external commitment.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on [197] the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

132 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C_x^A(1)

●805 824 The Inonda people refer to the dry season as huvira because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [504] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 241 The warm moist climate is generally favourable for plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

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(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepe over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepe and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gaiha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

614 182 not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled clan patrimony together. It is therefore [842] tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories implying causal connexions. It is notorious [813] that primitive thought will easily move from [814] the former to the latter, as the Orokaiva do, for instance, when they note that *taupa* leaves fall while the main taro crop is coming up and postulate that it is the dropping *taupa* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

(b) Climate

.132 [241]

According to Köppen's climatic classification (Köppen and Geiger 1930) the whole area falls within the Af category (humid tropical lowland), the uniformly high temperatures and rainfall providing a long growing season calculated by the CSIRO to be effectively twelve months in 9 years out of 10.

[821].

Two seasons, commonly referred to as 'wet' and 'dry', are definable in terms of wind direction, rainfall and humidity and are clearly recognised by the Orokaiva. The 'wet' season, from December to March, is characterised by north-easterly or north-westerly winds, high temperatures and humidities and late afternoon thunderstorms, while the 'dry' season, from May to October, experiences north-easterly winds, lower temperatures (particularly at night),[1] less cloud cover and more irregular rainfall, both in frequency and intensity.

The mean annual rainfall almost everywhere exceeds 100 inches, increasing inland to 157.6 inches at Awala on the lower slopes of Mt Lamington. The wettest and driest months are December and July respectively, the precipitation ratio between the two being in the range of 5:1 or 5:2. The rainfall pattern is not strongly seasonal by Papua-New Guinea standards and the element of seasonality decreases from the coast inland, from a coefficient of seasonal variation of 0.34 at Buna to 0.27 at Awala. Further, the deviations from the mean reveal that there is only a moderate variability of rainfall; nevertheless it (as revealed in Table 1:1) has considerable bearing on the rhythm of agricultural activities and economic life in general. While the pattern of food production clearly varies with the two dominant seasons,[2] the time-consuming tasks of clearing bush and establishing new gardens show no definite pattern other than a close association with the occurrence of dry periods. Thus the availability of labour and its application demand some flexibility to accord with the vagaries of weather.

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[1] Mean maximum temperatures over the year are in the range of 83° to 88°F., relative humidity at 9 a.m. is 80 per cent falling to 72 per cent at 3 p.m., and mean minimum temperatures are from 65° to 70°F. These figures are derived from observations made at Sivepe on the lower slopes of Mt Lamington. Temperatures can be assumed to be 5°F. higher at the coast and the diurnal range slightly less.

[2] Distinguished by the Orokaiva as gerepa - the wet season - when the staple taro (Colocasia) is in production, and huvira - the dry season - when the people must resort to sago, breadfruit and less favoured foods.

[821] [262]

121 these changes have had on the physical environment, especially topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout the year, both in Sivepe and Inonda. The Inonda people think that the nights at Sivepe (and on the mountain generally) are rather cold and it is true that in Inonda night temperatures are noticeably higher. The temperature also fluctuates slightly with the season, being higher just before and during the wettest season, i.e., from [821] September to February. The Orokaiva like the sun to shine strongly. They think a strong sun heals the sick and they like working in [789] the sun. One recurring theme in spells to improve the growth of taro is that the sun should shine strongly. This puzzled me a little at first, but students of swidden agriculture seem to be agreed that the fertility of the gardens depends considerably upon the dryness of the weather during the period when gardens are cleared and the felled vegetation burnt. (See, for instance, Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to month and year to year. I have quoted some data, for Popondetta and Awala, extending over a number of years. Inonda rainfall is somewhat below that of Popondetta; Sivepe rainfall is significantly higher than at Awala. Thus Inonda usually gets 80 to 90 inches of rain per year while Sivepe gets at least 200 (Tables 3 and 4). Europeans tend to divide the year into a "wet" and a "dry" season. [821] This is not a very accurate division and Orokaiva do not use it. It rains some days in every month and the notion of a dry season can be arrived at only statistically; it will then be seen to fall in June-August at Awala and Sivepe; in May-September at Popondetta and Inonda. This dry period, for the Orokaiva, is the clearing [241] and planting period par excellence. The Orokaiva know that the best harvests occur if it rains little during this operation. They may not be able to explain this by the fertility gained from the ash (they think it is the sun that gives the fertility during planting) but one does notice a certain sense of urgency at this time of year to attend to clearing and planting.

In October the heaviest rains begin and this is the period 132 when crops grow fastest. Thus the crops planted during the dry 241 period are apt to develop particularly well while crops planted earlier are able to mature. It is true that planting and harvesting continue for most of the year but the rainfall variations do influence the yield of taro planted at different seasons; hence the Orokaiva do have a clear notion of optimal seasons for certain operations. The dry period is the optimal planting period, while the months preceding are the period of optimal harvest.

753 of traditional enemies, in territory which had always been regarded
731 as hostile and dangerous. Keesing furthermore reports that "these
mountain people apparently could not conquer a fear of the sea, and
821 this was reinforced by a rumour that a supernatural "tidal wave" was
to occur along the coast. The camp director told how every night the
more timid scattered on to the higher ground rather than sleep in the
camp on the foreshore."

There is no record that any fears continued after the people were resettled on their own lands. For instance, they ate the products of their land without regard to the fact that they had been scattered by volcanic ash.

164 The abrupt change in diet which occurred in the evacuation
262 camp seems to have had no injurious effects and aroused no great
731 concern. The people liked the rice and meat rations they were given. After awhile they began to long for their own food. Their expeditions to their home villages enabled them to collect at least some taro for themselves.

128 I shall discuss the general health problems of the Orokaiva and government and mission health measure in subsequent chapters.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

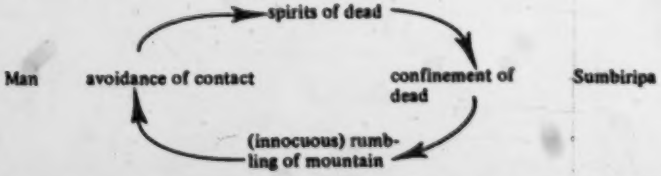
Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

784 social exchange relationship in which the Orokaiva thought they had defaulted.
823 In the case of Sumbiripa, this relationship was a rather special one as Sumbiripa's
795 gift is the safe confinement of the dead, whereas man's gift is avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa, whereas Sumbiripa mediates by emitting his usually innocuous rumbling. Before 1951, Sumbiripa had never erupted in living memory. We may express this in the following diagram:

MODEL 9



One theory of the eruption was that man had broken the exchange relationship by hunting on the mountain with guns. This disturbance angered Sumbiripa so that instead of innocuous rumbling he emitted the full blast of his immense and disastrous fury. The effect of breaking the exchange relationship with the Church was thought to be disastrous in precisely the same way. Just as the rumbling of the mountain suddenly became lethal instead of benevolent, so the 'communion' offered by the Church suddenly turned negative, dispensing retributive justice instead of mercy. Similarly, default in a social exchange relationship between human beings may lead the wronged person to give Alter misfortunes and diseases through sorcery, instead of the benefits he would otherwise bestow. If a relationship is broken, the wronged partner may respond by invoking negative mediating elements to obtain redress.

823 This dangerous trend may be reversed by expressing repentance, and by
797 receiving forgiveness (see models 1 and 3).[A] Subsequently, the offender will be more careful, if he is prudent, to stop the relationship from breaking down. Thus, after the eruption, the Orokaiva became more careful to carry out development activity (model 7)[B] and seek baptism (model 8).[C] The fact that the Anglican Mission denied that God had been angry would in no way diminish their solicitude, as such denials are always issued by offended exchange partners as part of the ritual of showing their forgiveness. Detailed empirical evidence given elsewhere (Schwimmer 1969) in fact shows that the eruption speeded up the development of the *iji eha* ideology among the Orokaiva. It would be wrong, however, to suppose that the supernatural fear propelling the Orokaiva towards development and baptism was due to a cruel deception by the mission or to irrational self-deception on the part of the people. It may equally well be regarded as a case of rational choice. It is not at all irrelevant to emphasize that development and baptism, in fact the whole *iji eha* ideology, was a sensible direction for the Orokaiva to take. The explanation of the disaster which they adopted was not a blind reaction to external vicissitude but rather the strategic reinforcement of a mythical charter for institutions mediating a valuable

A [See Category 829, pp. 58-9--Analyst]
B [See Category 657, p.75--Analyst]
C [See Category 797, p. 77--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

relationship. They could conceivably have chosen a different explanation which would have provided a charter for the reinforcement of quite different relationships. If the eruption had not happened at all, the Orokaiva would most probably have taken the same direction, but the charter validating development and baptism would have been weaker for some time. It may be that the exchange ideology would have weakened before development started. The eruption, however, seems to provide Church and government with a most formidable arsenal of negative sanctions in case the relationship is ever broken through the fault of the Orokaiva. We may conclude that the Orokaiva, by their belief in a new kind of divine intervention (through the *dema* figure Jesus Christ), have been encouraged to make new types of economic, social and religious exchanges, while maintaining their assumption of an exchange-oriented universe, and that their philosophy has provided them, at least for a time, with a workable rationale for the contemporary world.

REFERENCES

1. The traditional time concepts of the Orokaiva are probably mainly restricted to what Evans-Pritchard (1939) called 'oecological' and 'structural' time. It is, however, very likely that they also had 'an historical perspective of their own, whatever its depth may be' – rather similar to the one described by M. Panoff for the Maenge (1968). Such a perspective would include not only the *dema* but also the scission of lineages and the settlement of villages. An Orokaiva described lineage fission to me by drawing a tree on the ground – using precisely the same symbolism as Panoff's Maenge informants. Orokaiva stories of the settlement of villages also abound, usually giving the name of the tree by which the settlers 'sat down' when they arrived.

Pocock (1964) has argued that as culture change becomes more rapid under the impact of European contact, traditional time concepts undergo structural transformation to make them more nearly explanatory of the actual course of events. I believe that the identification of Jesus Christ with a *dema*, as argued in this chapter, is an example of such structural transformation.

2. For the location of Torogota, see Fig. 10.
3. Information on this point was derived from several local planters, including Mr. C. E. Searle of Awala. See also Howlett 1965.
4. Details on communication channels between government and people are given in Schwimmer 1967, 1969.
5. The Sasembata mission station is not in Sasembata village but just north of Kongohambo. See Fig. 10.
6. Reay has reported that 'the natives had no knowledge, or legend, of an earlier eruption' (*apud* Taylor, 1958: 21). My own study (Schwimmer 1969) suggests that this view, while not strictly incorrect, needs to be modified. My sources are tape-recorded myths and Miss Nancy White's manuscripts (White, n.d.).
7. Interview with Bishop Hand, January 1967.

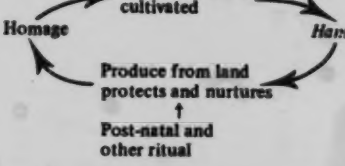
[p.82 is blank]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

was thought to inhere in his old garden plot and in the products growing there, or more specifically perhaps in the water flowing through the garden, for it is in the water that the dead tend to live, even though in a more general sense they are everywhere in the garden, as well as in the abode of the dead under the mountain and in other places also. The transfer of the *hamo* to the child is a drawn-out process that may last a year or so. It is done through the mediation of the stick. A mother carries this stick with her every day as she goes to the gardens and she is supposed to hang the child from the stick as she does her work. I have actually seen another mother do this for months. The child draws soul substance through the stick all the time and as the taro and other crops fill out and become vigorous, the child will do the same. It is through this absorption of *hamo* that the child can later fulfil the promise made to the dead Jarata, namely to look after the garden from which he has drawn his life-force.

The ritual formulae spoken by the parents in the garden and quoted above both clearly have the form of a bargain, by which the spirit of the deceased is asked to give *hamo* (a combination of supernatural protection and nutrient strength) to the infant in exchange for proper homage. This transaction may be expressed in the following exchange cycle.

MODEL 12



Superficially, it may appear that the exchange cycle given here offers a generalisation that goes far beyond the data I have presented. My data present a transaction between a deceased and a particular couple, with one particular child, who promise to look after the land. My model, however shows a transaction between any spirit attached to a piece of land, and any cultivator. Yet it may rightly be argued that every couple cultivates, at one time or another, a large number of plots, and that only some of these plots are linked to their cultivators through post-natal rites performed in respect of themselves or their children. This argument, however, is irrelevant. Spirits are attached to every garden plot, and there is always some person charged with the care of those spirits. The senior member of an extended family, the 'father of the ground' (*enda mama*) has the ultimate responsibility to see that the spirits are not neglected. When he gives any cultivator a usehold over a piece of land, it is understood that this cultivator takes over the care of the spirits on the land. This care includes making food offerings to the spirit on a raised platform built for that purpose. More broadly, the responsibility to the spirit also involves the proper performance of all ritual and horticultural activities prescribed as parts of the cultivation cycle.

Chapter 2

The subsistence economy

a. Climate and soils

134 [139] 132 The neighbourhood has a warm, moist climate with an average annual rainfall of 160 inches (see Appendix C).[2] Sivepe is between 1,250 and 1,300 ft above sea level and nights are often cool. According to the C.S.I.R.O. soils survey (1954:11), the village is on a soil association of the Awala land system which has an 8-12 inch very dark brown top soil. Chemical tests suggest that these loams are fertile, rich in nitrogen and phosphorus. The fine-textured subsoils range from 10 to 22 inches in depth. The terrain is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mt Lamington (5,634 ft) into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system.

133

● 823 134 The local people recognize 5 types of soil based on differences of colour, texture and moisture.[1]

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[1] (a) Hohori - any red soil; 2 subtypes are distinguished: i. without sand. This is popular for cultivation; ii. sandy. Avoided if possible as taro does not grow well in it.
(b) Gindiri - any soil which is stony or has a high sand fraction. It may be used for cultivation but in the dry season taro grown in it becomes stunted and the corms are small.
(c) Mume - this soil is the predominant type in the area. It is the dark brown loam described in the C.S.I.R.O. report as covering almost the whole of the soil association. It is certainly the most widely used and together with Hohori, type i., it gives the best yields.
(d) Pusu - any clay. Taro growth is stunted.
(e) Pegare - swampy or waterlogged soils. These are sometimes used during a dry season.

A, [See Category 132, p.109--Analysis]

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejopa. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages; but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 [103] [128] All land around Sivepe and neighbouring villages is divided into named areas which we will call 'blocks'. Each is usually a locality deriving its name from a prominent local natural feature - often a tree or a grove of trees, hence Korinasusu or Korinaturu. For any subdivisions of a block we use the term 'section' and we refer to either 'blocks' or 'sections' as 'parcels' of land.[1] No correlation is implied between the type of a parcel and the type of rights held to it.

423 [428] All land constituting territory of the Jegase, Timumu or others in the neighbourhood is divided into parcels which are the holdings either of individuals or of full brothers. A man's rights and other property are ideally inherited patrilineally. In some circumstances a definitive division of the father's land may be made among his sons before his death. This usually takes place if the sons already have their own households, if the father is no longer very active in village life or if the younger men are [562] only half-brothers. We know of no instances of a daughter receiving a particular share at the time of such an allocation, but we refer elsewhere to circumstances where women hold land 428 (see Appendix E, p.111).[A] In other cases brothers may jointly hold all the land inherited from their father. This seems to apply particularly to instances where a younger brother is unmarried or has taken temporary employment away from the village

[823]

[1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. [B]

A. [See Category 428, p. iii--Analyst] B. [See Category 103, p 40--Analyst]

461 In 1944 attempts were made to revive the communal plantations but employment by the American military in the Inonda-Oro Bay area and other work for Allied troops made the people revise their ideas on the value of their labour[1] and resulted in a general lack of enthusiasm for the cash cropping schemes.

731 The eruption of Mt Lamington and the subsequent floods destroyed many villages and gardens and some 5,000 survivors had to be evacuated to refugee camps at Oro Bay and Ilimo. While the majority were resettled within four months, 1,500 people from within a 'danger area' of eight to twelve miles around the active crater were obliged to remain at Ilimo camp until July 1951, or live with clansmen elsewhere, and re-occupied their villages only over a period of years.[2]

731 Many Orokaiva viewed the disaster as divine punishment, in
●823 particular for their lack of co-operation with governmental and mission programmes,[3] and they were reported to deeply appreciate the extensive relief measures, including food, tools and medical services, provided by the Administration. Subsequent Administration
464 reports remark on the willing co-operation of the people in voluntary road construction and their renewed interest in cash cropping.[4] However, once the need for producing food as a relief measure had passed, all staff of the Department of Agriculture were withdrawn from the District. Interest waned and was reported to be 'completely dead' in 1953.[5]

(d) Activities of the Anglican mission

797 Apart from very limited activity by Seventh Day Adventists in the Pongani area and Lutherans among highland labourers at Sangara, the Anglican church is the only mission working in the Popondetta sub-district. It first established itself at the Mambare River in 1900 and activities were gradually extended southward along the coast, but it was not until the 1930s that stations were established among the inland Orokaiva, at Isivita and Sangara. In 1965 the

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1 Patrol Report, Higaturu, 1543/44; Crocombe 1964:21.

2 See Rimoldi 1966:45-6 for a fuller description.

3 Belshaw 1951b:242; Keesing 1952:18. However, some informants viewed it as punishing the Europeans (thirty-four of whom were killed) either for the hangings at Higaturu and Sangara, or for not having provided the Orokaiva with education and access to income.

4 This was in part an expression of the high prices obtaining during the Korean War.

5 DDA, Popondetta, DS-17-4-5.

[194] regrowth. They are lower lying than the surrounding savannah and are poorly drained.

(ii) The Girua Association consists of coarse textured, recent riverine deposits covered with forest or regrowth. It lies beside the Sambogo and Girua rivers. The association covers about one fifth of the Inonda lands and, being permanently moist and apparently fertile, these soils are extensively used for food [829] gardening. The local people have given this soil type the name tumene.

(iii) The Warisota Association occurs on the lower slopes of the valleys of the Hydrographers Range, where the Sambogo river and its tributaries emerge from the foothills. The soils are recent, well drained, medium textured clay loams, becoming fine textured with depth, and being grey to grey-brown in [195] colour. They are covered with a heavy forest or secondary growth vegetation, but there is little accumulation of organic matter in the topsoil.

[241] These soils, which cover approximately one fifth of the Inonda lands, are used for food gardens, although they are not favoured because of their tendency to dry out during the dry [828] season. On the higher ground they are known to the Orokaiva as hora while on the lower ground they are known as hohori. The hohori runs into the still lower lying tumene of the Girua Association.

(iv) The Hydrographer Association lies in the deeply dis- [197] sected foothills of the Hydrographers Range. The soils of this association are shallow, stony and poorly differentiated, carrying a hill-type rain forest. They are not favoured for gardening and the people use this land only for foraging and hunting. Its agricultural potential has been assessed as "negligible"(1), as both topography and soils are unfavourable for the growth of crops. It occupies approximately one fifth of the total area of the Inonda land.

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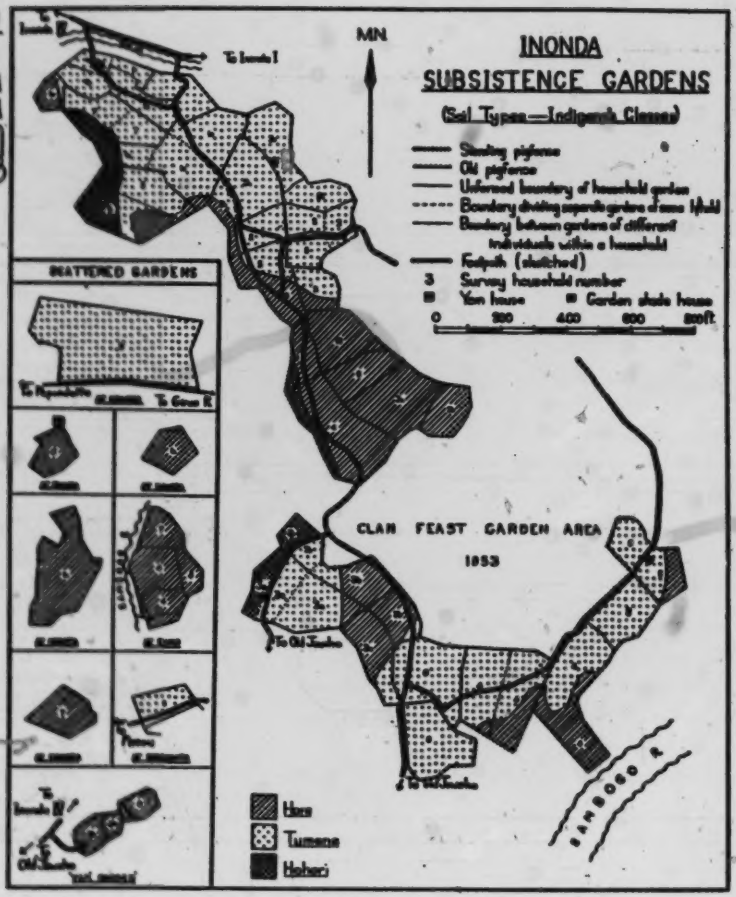
(1) Ibid, page 26.

14: Crocombe & Hogbin E-5 (no date) 1963 OJ23 Orokaiva OJ23
Inonda



21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

OCEANIA

A JOURNAL DEVOTED TO THE STUDY OF THE NATIVE PEOPLES OF AUSTRALIA, NEW GUINEA, AND THE ISLANDS OF THE PACIFIC

VOLUME XXI JUNE 1951 NUMBER 4

SOCIAL CONSEQUENCES OF THE MOUNT LAMINGTON ERUPTION[1]

By CYRIL S. BELSHAW

THE eruption of Mount Lamington in the Northern Division of Papua in January, 1951, was accompanied by the immediate and total destruction of Government Station and Anglican Mission Station and the death of about 4,000 people. About 5,000 natives were evacuated from the blast perimeter to refugee camps at Oro Bay and Wairope; the Wairope camp was destroyed by floods a few days later and moved to Ilimo on the Kokoda Road. The villages of over 1,500 of the survivors were either destroyed or considered to be unsafe for habitation. In addition to these people those who had their gardens near the rivers which were fed from the Lamington slopes saw them destroyed by floods, while others on the Managalasi (southern) slopes of the volcano, not directly affected by blast, had gardens ruined by volcanic dust. This article is concerned principally with the survivors directly affected by the blast, that is those people living between Popondetta and Wairope who either had their homes and gardens destroyed or who are acting as hosts to such refugees, and who may be described as the Periho section of the Orokaiva people.

Such a sudden and devastating experience is a shock, not only to the physical and mental systems of the people who suffer it, but to the whole fabric of society. It will be many years before all the consequences can be clearly defined: in the meantime this article may serve as a tentative analysis and in some measure a historical record.

According to European eye-witnesses now in the area, the people were disturbed but not unduly frightened during the five days between the first signs of eruption and the devastating blast. The night before the blast, when the sky was darkened and tremors were felt, large numbers visited missionaries and government officers

[1] This paper is based on a two weeks visit to the area during April and May, 1951. I wish to thank His Honour the Administrator of Papua and New Guinea for making the visit possible; also the re-settlement staff, all of whom were so generous with hospitality and information.

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

823 for advice. The tragedy is that subsequent events were unpredictable. When
[731] the blast came it was so swift that there could only have been two or three minutes' warning, and the phenomenon was so far beyond experience or imagination that the people were too numbed to panic. Good order was maintained and the refugees successfully assembled in camps in a remarkably short while. Within two days camps were operating and supplied by air.

823 As the people settled and began to take stock of events, they began to seek for
731 explanations. An aeroplane had been flying close to the mountain at the time of the blast, escaping in the nick of time. One rumour had it that this aeroplane had
[784] dropped a bomb. Most explanations were, however, religious in nature. Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. By April most of these specific rumours
[783] had been countered. There remained, nevertheless, an almost universal belief that God had punished the people for their sins, and these sins were enumerated in general terms, such as lack of co-operation in Mission and Government plans for development. This sense of guilt is a most important factor in resettlement attitudes.

731 Another factor affecting resettlement attitudes was the speed, scale and nature of the relief measures. The war-time miracle—the rapid mobilization of resources—was repeated by the European, not for purposes of destruction but for the help of the Papuan people themselves. Once again the people asked themselves how the European was able to do this; and they were grateful that their need had been met.

Relief was not only provided in the form of rations and building sites where the people erected humpies for temporary shelter. Medical services in the camps were directed not so much towards the healing of the wounded, for few of these had survived, so much as towards the maintenance and improvement of general health. The Higaturu Hospital was completely destroyed, but excellent field dispensaries were set up at Oro Bay, Popondetta and Ilimo. At Ilimo there was also a baby welfare clinic, staffed by two European nurses and Papuan assistants. In a few weeks the Ilimo dispensary and clinic had established itself as a popular institution, serving the needs of surrounding villages as well as of the camp. The large numbers treated bore ample testimony to the scale of medical need in the district and the regularity of out-patient attendance was notable.

[673] The Government maintained a technical training school at Higaturu, and the Anglican Mission had an advanced school at Sangara. Both of these were destroyed with almost complete loss of staff and pupils, many of whom were almost ready for graduation. Immediate relief measures could do little to replace this critical loss. But the Mission, with Government assistance, recommenced village-level schools in the camps. At Ilimo particularly the Government started adult education classes, partly to provide something useful for the people in their leisure hours, but mainly

PART I: INFLUENCES EXTERNAL TO THE COMMUNITY

CHAPTER 1: The Eruption and Evacuation of Survivors

Section 1: Mount Lamington: Cosmic Centre and Volcano

823 773 Mount Lamington has long had, to the Orokaiva people, a significance somewhat similar to that of Mount Olympos to the Ancient Greeks. It is the omphalos kosmou of Orokaiva myth: the origin of death, warfare, fire--and generally of all those cultural elements established by the transforming deities--are traced to the Mountain, while the division of the people into distinct language groups is likewise a primordial event that occurred on the Mountain. [775] The departed spirits of the Orokaiva have their home there, headed by the first man to have suffered death, Sumbiripa, to whom all the activity of the Mountain is ascribed. Signs from Sumbiripa reach the living regularly, because at all times the Mountain has rumbled and sent forth tremors and smoke.

These facts appear clearly from the cycle of myths, centred on the Mountain, collected by me in the vernacular in 1966-1967. The cycle is far too elaborate to be explained as a recent development. It might, however, be argued that before the disaster of 1951, the omphalos kosmou was located elsewhere and that it has since been "relocated" to Mount Lamington. The fact that F. E. Williams was unaware of the mythical importance of Mount Lamington gives some force to this contention. As against this there is the testimony of missionaries (Tomlin, 1951; Benson, 1955) who knew the Orokaiva well before the eruption and who had no doubt that Mount Lamington [776] was then regarded as the home of the dead. Even more conclusive are statements from numerous informants at Hohorita and Sivepe, all of whom interpreted the eruption as the work of Sumbiripa, the Lord of the Dead, who lived in the Mountain.

[774] Does this mythology provide evidence for previous volcanic eruptions? Marie Reay, who was in the district at the time of the eruption, found that "the natives had no knowledge, or legend, of an earlier eruption." (Quoted in Taylor 1958; 21.) I wonder, however, whether in those chaotic days she had much opportunity to make a systematic study of the mythology. I collected a myth of the origin of death which is certainly suggestive of earlier volcanic activity though it is impossible to be sure of the physical phenomena to which it alludes. I recorded four versions of this myth in full vernacular texts, one from Sivepe, one from Torogota (another village in the Sasembata area), one from Hohorita and one from a

823 collection of vernacular texts written by a young man from Kiorota
793 in 1952 (White, n.d.).

According to all versions, a man named Sumbiri and his wife Suja went hunting on the Mountain. They stayed there for several weeks, while the husband caught wallaby and cuscus and found some birds' eggs. In three of the versions, the Mountain began to rise while Sumbiri (ignoring a taboo) slept with his wife. Several crags then formed on one of which the couple was lodged, unable to climb down. Separated from the world, they leapt into the crater that had formed between the crags. The fourth version, collected at Hohorita and belonging to the Sangara tribe, describes a fight between a pig (presumably the first pig ever hunted by man) and a large dog or dogs, during which the mountain began to change shape. Originally it was "one Mountain but now it became divided into parts so that there remained a number of peaks too steep to climb up or down." Pig and dog(s) disappeared into the hole that was formed; the man and woman found themselves separated on different crags and died of loneliness and despair. The mountain is called Sumbiripa Kanekari, "The Separation of Sumbiripa." This Sangara version is notably the richest in mythological content.

[174] Is it possible that these versions all originated after the eruption? Though it cannot be ruled out, it seems unlikely. One of them was written down by a student mission teacher as early as 1952; the Sivepa version recorded by me presents the mythical event and the eruption of 1951 as two distinct successive events. None of the events that most deeply impressed people about the eruption of 1951 (explosion, flame, darkness, wind, deaths) are incorporated at all in any of the versions. It seems more likely that the myth refers to an event remote in time and not remembered more clearly than most modern Europeans are aware of the factual basis of the Book of Genesis. Nonetheless, the myth points to an earlier structural change in the Mountain, caused by volcanic activity, and sufficiently recent to have left some impact on human memory.

Section 2: Preliminaries of the Eruption

133 For some time prior to the eruption, Mount Lamington behaved
731 rather unusually. Orokaiva and Europeans each gave their own explanations for this unusual behaviour. The Europeans, being politically more powerful, were able to impose their plan on the Orokaiva. The Europeans felt no qualms in doing so, as they regarded their own views to be scientifically based, whereas the Orokaiva view was based on the presumed anger of Sumbiripa. As we shall see, this was a case where bad science was more dangerous than sound superstition.

133 Just when these preliminaries started is not clear; it may have been one week before the disaster or several weeks. The rumbling and tremors in the mountain, which were usual enough, became more severe; smoke was beginning to come out of the crater in thick puffs high into the sky; the number of craters rose from one to four or five. Ash covered the peaks, areas along the slopes became burnt; sometimes there were flashes of fire; several landslides appeared as brown streaks in the forest. Swarm-pattern earthquakes became widely felt throughout the area. On Thursday, 18 January 1951, the more active phase of the eruption began (Taylor, 1958). The emission rate increased throughout the day; the smoke gushing forth "at a great rate" varied from black to grey and spasms were noted in the crater activity. The emission was described by more distant observers as a slow-moving continuous dark-grey column ascending to many thousands of feet. A survivor who looked at the mountain through a telescope on that day noticed that a large hill had built itself up between the hills at the foot of Lamington and the mountain at the rear. That night, the mountain was shooting fire like an immense fire works. In the Sivepa area, at this time, and on Friday, stones were falling on the gardens, earthquakes were very severe and some houses had collapsed.

731 The Orokaiva interpretation of these events will be clear from what I have already written. It is explicitly supplied by Benson (1955) who reported that the fearsome happenings in the mountain were ascribed to the anger of Sumbiripa. I shall show later that the same view was taken in Sivepa. The clearest description [114] of the state of mind of the people close to the mountain (those who were mostly to become the victims of the blast a few days later) was given in a letter by Margaret de Bibra, head teacher at Martyr's School in the Sangara Anglican Mission. Miss de Bibra died during the eruption but her letter was found after her death (White, n.d.).

> The Papuans--well, most are calm, many are apprehensive and some really frightened, especially those whose villages are near the mount. It is all understandable, in fact it is to their credit that there is no panic. Lamington has not been a volcano within the memory of living man, nor in the legend of the people. (But see above, E. 5.) True, Lamington [813] is feared as the home of spirits and no local man--even Christian--will venture to the top. As one of our Church Councillors said: 'The mountain people do not understand. They are afraid. We understand a little and we are afraid too. Our fathers did not know of it. The trembling of the earth--yes, but not

731 In the second phase, which is well documented through the reports of Keesing and Belshaw, attitudes were more complex. Our present concern is solely with the question whether the evacuees continued to regard absence from their home villages as necessary. Later, we shall refer to the gratitude that was shown to the Europeans for helping them in their hour of need, the extraordinary degree of cooperation and orderliness that prevailed, the sense of guilt that may have motivated the people in their compliant attitudes. We shall also refer to the anxieties the people underwent at this period: the usual anxieties of camp life, the uncertainties of the whereabouts of many kinsfolk who might or might not be alive, the fear that somehow they would be unable to [823] get their land and villages back. Informants stressed to me that the worst sufffering of those days was simply home sickness, the sense of desolation at being separated from the places to which they so intimately belonged. Hence, in spite of the fear for the mountain, the Orokaiva very soon began to exert pressure upon the camp authorities to let them return home.

731 This pressure is especially evident from Belshaw's data:
657 people argued that the Europeans would not necessarily know what would be a safe area should the volcano blow up again--hence the maintaining of the camps could not logically be justified by their supposed safety (Belshaw, page 244). When the authorities inquired whether the people favoured consolidation of villages, many of the answers "were framed so as to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end." (Belshaw, page 246). Every excuse was given for making trips to the home area, and the authorities seem to have tried to restrict the number of persons joining such expeditions; also, they evidently forbade women to join their husbands, all no doubt to ensure that people would really return to camp. In spite of this battle of wits, the period was one of relatively excellent Orokaiva-White relations. The point is, however, that the evacuation camps were soon regarded as increasingly unpleasant and unnecessary.

731 Attitudes also varied according to the distance between the camps and the home villages. At Cape Killerton and Oro Bay,
[823] the Orokaiva were deeply disturbed at being in foreign territory, far from their homes, and close to the sea which they particularly feared. I was told this by all Sangara informants and it is also
[753] stated in Keesing's report. My informants also ascribed sickness of many people, especially old people, to homesickness. This does not conform to the medical record, as presented to me verbally by Dr. Gunther who was personally in charge of medical care in the
[164] camps. Dr. Gunther said there was not much sickness; there were cases of spinal meningitis and paratyphoid, which he ascribed to close living together in the camps and which were "not very much
[753] more" frequent than in any camp. It is significant, however,

133 Sivepe lies on an altitude of 1,300 feet, seven miles from
Mount Lamington. Although the mountain rises to a height of 5,634
[361] feet, most present settlements are on the lower slopes, rarely very
much higher than Sivepe. A wide range of annual and perennial
[241] crops, including taro, on which the Orokaiva depend, do not grow
well at altitudes much above 1,500 feet. Thus, the eruption has
[731] had no appreciable permanent influence on the location of village
sites. The restricted area is at present a circle of two miles'
[361] radius from the crater of Mount Lamington; there are not now, nor
were there before the eruption, permanent settlements closer than
four miles from the crater.

The Sivepe terrain (if I may borrow the terminology of the CSIRO report) is characterized by a gentle radial slope on wide planar ridges between the larger steep-sided streams flowing from Mount Lamington into the Kumusi River. Numerous smaller creeks, together with these streams, form an effective fine-textured radial drainage system. Drainage is facilitated, moreover, by the extreme porosity of the soil.

134 Sivepe (see Map II) is on a soil association of the Amala
land system which has an 8 to 12 inch very dark brown topsoil.
Chemical tests suggest that these loams are fertile, rich in
nitrogen and phosphorus. The fine-textured subsoils range from 10
[823] to 22 inches in depth. Rimoldi points out that this dominant soil
type, which the Orokaiva call mume (a word whose principal meaning
is night, darkness), is only one of five found in the district and
distinguished by Orokaiva by colour, texture and moisture. The
others are hohori (red), which is popular for cultivation if it is
not sandy; gindiri (stony, with high sand fraction); yusu (clay)
and pegara (swamp). Mume is the most widely used soil for gardens.

In contrast, Inonda (see Map IV) is no more than 200 to
133 300 feet above sea level. It lies partly (to draw on the CSIRO
report again) on the flood plains of the Girua and Sambogo rivers
and partly in the moderately sloping foothills of the northern
side of the extinct strato-volcanic Hydrographers Range. The
Sambogo and Girua Rivers flow in a northerly direction draining
from the Hydrographers Range and Mount Lamington respectively.
They are swiftly flowing, rocky-bedded rivers which, together with
their numerous tributaries, give the area a moderate to good
drainage system. To the east the drainage system in the vicinity
of the Myola Lakes has been blocked by recent volcanic activity and
drainage is much poorer. A vast coastal plain between 20 and 30
miles wide stretches north-westwards from the Hydrographers for
over 60 miles. Inonda lies at the southern end of this plain,
about 15 miles inland from the coast.

134 Crocombe and Hogbin classify Inonda soils on the basis of
five soil associations listed in the CSIRO survey: (1) the
Popondetta Association, with black to very dark topsoil underlain
by yellowish-grey volcanic sand subsoil. The topsoil looks like

A [See Cat. 116, p. End Map 3--Analyst]
B [See Cat. 116, p. End Map 4--Analyst]

654 After resettlement in Awala and other villages, the government
731 made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 In earlier chapters, I have already drawn attention to the
823 widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child [794] is, even now, performed in a family garden. Separation from the family land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 Naturally, in the circumstances, people did not feel any pride
177 or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepe [438] was proud, for instance, of having discarded its pigs. On one occasion they were bargaining to buy a pig from neighbouring Garambi which still [628] had its pigs. During the bargaining, a Garambi man taunted Sivepe about its lack of this kind of treasure. The Sivepe people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepe's status in relation to other villages. If Sivepe had not felt secure in its ideology of the "new way," there would have been dismay at Garambi's taunt about the lack of pigs. But nobody in Sivepe doubted the rightness of the choice that had been made.

731 152 [823] mountain, wholly on official rations, and with nothing to do, the people were a prey to all kinds of rumors as to what was going on elsewhere. Furthermore, these mountain people apparently could not conquer a fear of the sea, and this was reinforced by a rumor that a supernatural "tidal wave" was to occur along the coast. The camp director told how every night the more timid scattered on to the higher ground rather than sleep in the camp on the foreshore. Prior to the liquidation of this camp the authorities sent one of the leading men back to the big Ilimo camp and the home area so that he could return with a factual account of conditions and allay the other inmates' fears as far as possible. A strong current of tension running through this whole situation was: "What does Government intend to do?" All these behavioral conditions appear psychologically congruent with the long term personality norms.

731 361 199 The new group alignments of the camps and resettlement areas presented interesting tests as to how far larger aggregations could be structured effectively enough to show promise of permanence. This matter is particularly crucial to policy, and constitutes the major challenge from the viewpoint of "applied anthropology." Reference has been made in the foregoing to a controversy which arose as to whether this would be an appropriate occasion to resettle the survivors in centralized communities, or to allow them to scatter as before in a dispersed pattern of settlement consistent with safety. Some officials resented the idea that the catastrophe should be used to "put over" anything other than those rehabilitation operations that are in line with the habits and sentiments of the people. On the other side was an opposing official viewpoint, and a powerful Mission sentiment, that it would be in the long term interest to take the opportunity to concentrate the surviving Orokaiva into a small number of population centers, with proper welfare and other services. The first village building program represented something of the latter viewpoint, though some even visualised bringing the people into a handful of large town-like communities, much like the Ilimo camp-settlement, with cooperative agriculture and other modernization. The Orokaiva, so far as their views had been, or could be obtained, appeared to have no crystallised opinion. Because of the factors playing upon them, they were for the time being particularly susceptible to the suggestions of those official and Mission workers who brought the enthusiasm of reformers to the cause of concentration.

731 659 361 199 The writer was asked to give an opinion on this matter. The following points seemed clear, even from a quick view:

1. The loosely organised Orokaiva society has no significant pre-existing socio-political institutions and loyalties beyond the immediate kinship and hamlet alignments. A camp concentration, therefore, remained a congeries of traditional groups, each dealing with Government authority through its senior leader. Officials said that a few particularly strong men of super-local reputation were tending to take leadership in speaking when the "headmen" were brought together for informal camp "councils." But essentially, for purposes of issuing ration and other activities, each small group had to be dealt with as a unit, and otherwise kept its integrity. Here and in the newly formed villages, Government de-

the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data, dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5–6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, warfare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

his wife; the two were separated and found themselves on different crags. Sumbiripa became the first man to die, the master of the mountain within which he has since dwelt together with all Orokaiva who died subsequently.[12]

The myth explained the shape of the mountain as it was before the eruption. The crags are not there today because they were blown apart by the eruption. The myth also explained the rumbling of the mountain and the smoke that issued from it long before the eruption of 1951. Such phenomena were regarded as signs sent by Sumbiripa. Ritual prohibitions limited access to the area close to the crater as there was a belief that Sumbiripa, if disturbed, would be angry. There was also a great fear of the dead who were supposedly dwelling in the mountain. It is believed that the dead wander about the countryside, where they may attack humans. Sumbiripa is dangerous, even if he does not erupt, because he can send out his ghosts to cause misfortune among men. The myth about Sumbiripa Kanekari hints at the possibility of an earlier eruption by the account it gives of the origin of the crags existing before 1951.

The sociological importance of the eruption lies largely in the explanations of the event developed afterward by the survivors. These explanations are related to the situation of Orokaiva society in 1951. Here we must distinguish between the situation as it appeared to the Orokaiva individual or to small refugee groups and the collective situation of the Orokaiva tribes as they collectively perceived it, in terms of the basic forces shaping their social life at that period. We may follow Burridge (1960) in identifying these basic forces with the colonial government, planters and traders, the mission, and relations within and between tribal groups.

Immediately after the eruption, the situation for individuals and small groups was dominated by fear of the mountain, grief for dead relatives, and anguish at separation from the land. The situation was influenced, moreover, by abrupt changes in social organization. The Sangara fugitives mostly fled alone or in very small groups, leaving behind their numerous dead; the Sasembata fugitives mostly fled in village groups led by their village constables. While the disaster made the Sangara leaderless, in Sasembata it merely reduced dependence on traditional leaders at the gain of the village constables whose responsibility was greatly increased. Village constables were members of village communities ap-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

Father Albert thought that God sent the eruption as a sign. Orokaiva Christians would generally agree with this view, though none of those interviewed formulated it so clearly.

From the viewpoint of this study, the question whether the Orokaiva considered the eruption as a punishment or as a sign is perhaps not a crucial one. In either case, whoever believes that God was responsible must also believe that a dire fate awaits anyone who fails in his obligations to the mission.

Comparing the three explanations surveyed so far, we note that the Christian explanation, like the Yega one and unlike the Waseta version, attached no significance to tribal divisions. God (like the Sumbiripa of the Yega) makes no distinction between tribes, but he does distinguish between the disobedient Papuans of the region and the administrators and missionaries these Papuans failed to obey. The former are guilty but not the latter.

Christian and Yega theories are opposed as to who is the guilty party. Indeed, the Christian explanation omits all reference to European deaths on the mountain, just as the Yega version suppressed the fact of the Sangara victims. The reason is no doubt the same: rhetoric demands that one should not in the same breath advocate a coalition with the white power bearers and admit that the latter suffered many deaths in circumstances implying their guilt.

With regard to connotations, all three systems differentiate between either tribes or ethnic groups that fell victim to the disaster, even though such differentiation is insignificant for explanatory purposes. If we use a minus sign to designate the social groups classed as guilty and a plus sign for the groups classed as innocent (though in fact the latter, too, suffered serious losses), we find:

	Victims		
Explanation	Waseta	Sangara	European
Waseta	+	−	omitted
Yega	+	+	−
Christian	−	−	+

I shall briefly mention a fourth system, though the explanation it contained was put forward by a small minority and was but feebly believed. Several Orokaiva close to the mission maintain nowadays that the eruption was due solely to geophysical causes. The mission authorites put forward this explanation to counter criti-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

Connotation	Explanation			
	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sowai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the Orokaiva and that most of the taro produced is consumed directly by the producing household (over 90 per cent in all villages surveyed). Nonetheless, taro is the most ubiquitous of all Orokaiva objects of exchange: most households give some of it away every day and it is part of the conventional set of gifts that change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths which validate this identification, and these myths indicate the special significance of taro gifts. A wide range of social relations are mediated through taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very

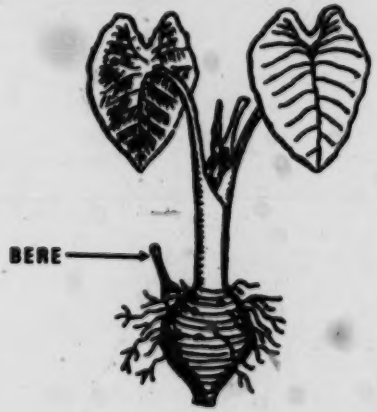


Fig. 7. *Colocasia esculenta* (taro).

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

The present chapter elaborates these ideas, as applied to taro gifts among the Orokaiva. With the aid of some recorded myths, I shall try to show just how taro is conceptualised, in what precise sense it is symbolic of 'hearth and home', and specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish between two specific ritual statements that can be made with the aid of taro and show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

It is obvious that taro exchanges cannot make any essential change in the relationship of members of the same corporate group. By definition, this relationship is already determined by the rules of incorporation. Thus, two brothers do not become more intimate by exchanging taro. On the other hand, if the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

bond is based on marriage exchange. Similarly, when married siblings of opposite sex reside in the same village, taro exchanged between their households would tend to strengthen the relationship between a sister and her brother's wife, and between her brother and her husband. Again among the Orokaiva where corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of corporate groupings on a basis other than kinship, and the study of such groupings is one of the main subjects of political anthropology. The Orokaiva, however, do not have corporate groupings of this type (no secret societies, no age sets, no economic institutions whereby 'big men' can achieve clear ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

I shall begin the analysis of taro symbolism with one myth especially rich in content, which includes all of the five characters, some of whom, in one way or another, appear in all the myths. It also stands out by the clarity of its detail on the cultivation cycle. As I proceed, I shall discuss some variant myths which emphasise certain themes omitted in the main one or convey the same message in different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

child into the water because it was bad,' she replied. 'I am going to collect cabbage.'

(*Commentary*: The reference to the water is the first of a series of apparent lies which always hide a symbolic truth. In this case it is easy to see the meaning, as several myths exist linking the origin of the taro with water. In one myth a woman was prodding the ground with a digging stick. She found water there (and this was the origin of water); later taro grew in that spot. In another myth a boy and girl who were siblings were washed away in a flood on a coconut tree. At the place where they finally landed they discovered taro. Taro, being identified with a human child, is thought of a growing in the water of the womb. The growth of the taro plant requires a very great deal of water and heavy rain so that the growing plant actually lives in a watery environment, which thus resembles a womb. In this sense, her statement is true.)

4. 'I am going to collect cabbage.' Having said this she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said: 'Wife why did I see you cry when you climbed to collect cabbage?' 'When I went to collect the cabbage the sap squirted into my eyes and I rubbed them,' she said. 'You are lying,' he said.

5. When the children were fully grown, she took them to the mountain far away. She told them their history; 'therefore, I must leave you behind and you must stay,' she said. When she joined her husband again, he asked: 'Why did you stay away so late?' 'As soon as I had done my work and planted my seed (*bere kowtie*), I started on my way home,' she said. 'Woman, you are telling lies,' he replied. When the man understood what his wife had been saying, he went away.

(*Commentary*: When a taro is fully grown it begins to grow shoots on the side of the main rhizome. It is then the duty of the woman to take cuttings from the plant. Strictly speaking these cuttings (Orokaiva: *bere*) are tops of corm-bearing bases of petioles (*Vide* Barrau 1965). These cuttings[1] are taken to a new garden being established, usually, at some distance from the old one. When the husband heard his wife saying this, he understood at once that she had been hiding the offspring she said she had thrown into the 'water'. He could not know, however, that his wife had had twins and this became his undoing.)

6. The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling (*du ate*) had gone to collect taro while the male sibling (*du bite*) was lying asleep with his chest turned upwards in the shelter (*gugu*). It was there that the man found him, understood at once he was his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

(*Commentary*: I do not know whether the narrator of the myth made a mistake when he said at the beginning that the hidden children were 'male twins'. There is no doubt whatever that at the stage the story has now reached they are siblings of opposite sex. While we cannot rule out the possibility of a narrator's mistake, my informant was an unusually reliable one and it is quite possible that there was an actual change of sex. This will become clearer later when we analyse the significance of male and female roles in this tale. The horticultural reference in this passage is to ordinary harvesting routine. The woman digs the taro and places them in a *gugu* or shelter where they stay until

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824
773
244
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she takes them home. The brother is clearly identified with taro growing in the field.)

7. The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from Managalasi brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married the sister and how the young man killed his father when the latter returned to complete his meal. He cut his father into many pieces which were shared out among men whose descendants became the various population groups in the Northern District, as discussed in Chapter III.

The myth takes us through two complete cultivation cycles from the planting of the *bere*, the covering over with weeds to protect them from the sun, the gradual growth of the plants under the care of the woman, to the shifting of a new *bere* to a new garden, and finally the growing of these new *bere* to maturity. I was given no explanation as to why the myth contains two cultivation cycles rather than one, but it becomes clearer if we regard the myth, on the horticultural level, as symbolising the domestication of what was at one time a wild plant. At this level, the myth starts with the finding of wild taro and the transplanting of the *bere* of that taro to a garden clearing. When these *bere* grow to maturity, new *bere* are taken from them and these in turn are transplanted. The products of this second planting are regarded as properly domesticated taro.

One may well wonder why the second cultivation cycle was introduced into the myth at all. Direct inquiry did not produce wholly satisfactory answers. [262] People no longer eat taro that grows in the bush, I was told, because it does not taste sweet, it is small, it hurts the mouth. Nobody transplants wild taro *bere* to cultivated gardens nowadays; this was done only in the times of the ancestors. Informants' attitudes to this question were often of this kind when we were [775] discussing the jungle. It was above all a place where the ghosts (*sovai*) lived and therefore dangerous. Wild pigs, especially, often harbour ghosts. If plants or animals are domesticated, it is the dispelling of ghostly essences that is the objective of the practices followed. I shall show this in more detail when discussing the domestication of pigs. Taking into account this fear and suspicion of the bush, it is understandable that a seed taken from the bush is not regarded as domesticated just because it has grown to maturity in a garden. A plant grown from a bush seed is regarded as still being contaminated by *sovai* influence. It is only the second harvest that can be regarded as wholly belonging to the domesticated domain.

[775] We have already met the same idea when discussing the taboo on taro-growing on a dead man's land. This taro is effectively contaminated in the same way as [784] bush taro. It is not eaten by those whom it endangers. The next crop planted is still dangerous, and it is only the second planting after the previous owner's death that is free from taboo.

This discussion has already developed one of the main themes of the myth, namely the opposition between bush and garden, the wild and the sown, the dwelling place of spirits and the cultivated domain from which they are carefully banished. If we now turn to the message transmitted by the myth at the social level, we find a similar opposition, namely that between Totoima and his wife. Totoima who kills his own children, using his tusks as he does so, has partly a pig

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

nature, partly a human nature, and these aspects are only partly differentiated. He ravages taro lying in the *gugu* in the manner of a wild pig. The wild taro *bere* planted by the woman in the beginning of the myth are fitly equated with his 'children' because Totoima's realm is the bush; bush taro are the children he might be expected to engender. The garden, however, is his wife's realm. It is she who nurses taro to maturity and who nurtures her family. She too has a dual nature, as she nurtures Totoima and also conspires to kill him. This second aspect is found in numerous myths concerning Totoima's wife. In the present version not only the wife but also the daughter is involved in conspiracy.

The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. The *bere* of the domestic taro must be preserved for planting. Hence it is the woman's duty to withhold these from her husband. Woman's two aspects – nurture and domestication – are crucial in the ritual statements made through gifts of taro.

Here we encounter again the dichotomy in sex roles to which I referred in the previous chapter. The male tends to be concerned with the killing of enemies and wild animals, the driving out of ghosts, the felling of bush before a garden can be made. On the other hand, the female is identified with the cultivation of taro. The *dema* of the taro are regularly called upon in drum songs performed at harvest time:

Bako jape teljo jape bako
Punduga kovari terijo jape bako, etc.

'Taro-being, ancestress, come to our aid, ancestress, taro-being; with the *punduga* harvesting help us, ancestress, taro-being', etc., where *punduga* is a variety of taro and the song continues with lines similar to the second one, invoking a great number of taro varieties, one after the other.

Taro, clearly, is a feminine plant. The first taro plant is found by a married woman in several myths I have recorded, though in others it was found by a brother and sister travelling together. One may well ask why it is, if taro is a feminine plant, that in this myth (and in others) we find its origin associated with two siblings of opposite sex (*du*), and why in particular it was the male sibling who was lying in the *gugu* while the female one was in the field. Those who like to impute laziness to the Orokaiva male may say that this scene is only too typical, but one cannot seriously believe this myth to indulge in caricature. In my explanation I shall anticipate an argument developed at greater length in Chapter VIII. It is a male sex role to clear a garden and give it to a woman; it is a female sex role to grow taro and give it to a man. These gifts are complementary and mediate the relationship between man and woman. The Orokaiva will classify a garden as a feminine thing 'because it is given to the woman' and a harvested taro as a masculine thing 'because it is given to the man'. This is why the taro lying in the *gugu* was a male sibling.

Evidence presented in the course of this chapter will show that Orokaiva regard taro as having a dual nature: while in the earth, they are identified with the woman who nurtures them and who regards them and nurses them as her children. When harvested they are victims to be killed, cut up and cooked and finally eaten. In this role of victims they are male, because the male is the killer

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 and the male is also the most illustrious victim of the killer – the victim whose name and spirit is adopted by the killer. This theme, widely reported among headhunters, is strongly emphasised in Orokaiva culture, as Williams recognised. [773] In the myth discussed here, and in several others, these complementary male and female aspects of the taro are indicated by the presence of a pair of *dema*, probably always siblings of opposite sex, and clearly marked as such in the present myth.

261 In addition to father, mother and twins, the myth contains a fifth character,
773 the man from Managalasi, whose peculiarly male role is the hunting of animals. The marriage between him and Totoima's daughter lays down the Orokaiva principle that taro is a female product given to a man whereas meat is a male product given to a woman. In a number of myths I collected on the origin of marriage, that institution is set up by the male hero's action of bringing home meat to a woman instead of eating it in the bush, as was customary before marriage existed.

824 If female nature, in its pure state, is found in the taro garden and male nature,
773 in its pure state, in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. In Totoima this dual nature is
539 imperfectly developed (for he eats taro in the manner of a wild pig); similarly it is, at first, imperfectly developed in his son who does not hunt and has a purely taro nature. It is only when the man from Managalase has replaced the son's taro entrails with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolised for instance by his manner of killing, with a club rather than the teeth (tusks), as did Totoima.

824 The analysis of this myth has enabled us to understand more precisely the
431 sense in which it may be said that taro is, as Sahlins put it, symbolic of 'mother'.
562 The Orokaiva do speak of taro as 'our mother' and the ideas they have in mind when they do so have been explained above. Taro is two things: it is a gift from a woman to her husband, and it is the offspring of the woman's womb inasmuch as she is identified with the taro goddess. The woman gives most of the taro-children she collects in the garden to her husband and others of her household, but she may extend this munificence by giving taro to others, i.e. by acting towards others as a quasi-wife or as though they were part of her household. Gifts of taro always have this intimate and deeply personal character as though the receiver was made part of the donor's household. The woman bears herself proudly, being pleased at having grown and cooked the food well; her attitude is formal and ceremonious, thus emphasising the importance of the gift and her respect for the recipient; at the same time she shows a certain solicitude, as though the recipient must be very hungry and very much in need of this meal.

3. *Taro as Mediator of Social Relations*

824 Gifts of taro may mediate either the establishment or perpetuation of a social
431 relationship. But the ritual context of the gifts differs considerably. By far the most frequent type are gifts which maintain relationships; these are made by
621 every Sivepe household every day. In the twenty-eight days for which I took

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

records of taro gifts made in Sivepe village, the number of gifts made and received averaged 2.5 daily, ranging from a minimum of 1.3 averaged by the household least involved in the exchange system, to a maximum of 4.1 averaged by the household that made and received the most frequent gifts during the period. Allowing for variations in size, age and personality characteristics in the various households, these figures present a fairly homogeneous picture of customary exchanges.

Most of the gifts were made within the village, though a small proportion went to relatives and good friends who visited the village or who were visited by members of the Sivepe community. The usual practice was for the woman to bring home with her from the garden not only the taro her household was to eat that night and the next morning, but also taro to be used for giving away. When the recipient was of the same village, the taro would be cooked and presented ready to eat. The presentation was hardly ever made by the husband and most frequently by the children who were sent over with the cooked food and gave it to the named recipient without any ceremony. When there was any ceremony about the gift at all, the housewife was the proper person to make the presentation.

If I inquired who was the donor of the food I was often given the name of the woman, but sometimes the name of her husband, especially if the recipient was one of the husband's close kinsmen. There was always the notion that the gift served to maintain a specific relationship which would be involving either the husband or the wife. Strictly speaking, by far the greater proportion of the gifts were thus made to consanguines rather than affines. But it is better to regard the household as an integrated unit in its relations with other households, as the spouses undoubtedly mostly discuss together to whom food should be given. Essentially, taro gifts mediate relationships between households rather than individuals.

The size of the gifts was constant and seemed to be approximately what one person would eat for a meal. If a household made a gift of several meals to another household, this would be described to me as several gifts, with specification of the names of individual recipients. Here again, there was a contrast between the strict form of the gift and its overall significance. Strictly it was food given by one person in household A to one person in household B. When the family sat down to eat, the person who received the gift taro would share it out to others in the household. Therefore one may say that the gift was, in its general effect, from one household to another, but in strict form, it was emphasised that the social relationship between households A and B was mediated by one person in each household whose relationship was especially close. Thus, I might be told that 'X' sent taro to his brother 'Y'. In fact, X's wife would give the taro to one of her children who would take it probably to Y's wife. Y's wife would give it to Y, saying it came from X. Y would then give everyone a piece of it. A single gift would thus mediate quite a number of bonds.

As the gifts were very frequent, it seems a hopeless enterprise to specify on what occasions they were made; at first I thought taro gifts were made without any reason. Nonetheless, it is useful to discuss briefly a series of instances when taro gifts are considered appropriate. Let us first list a few of the more formal occasions when the housewife herself would make the presentation:

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[946] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

household to other households with which the bonds were intimate. Their function was to maintain existing social relationships. Nobody maintained relations of this sort with every household in the village; in the twenty-eight days for which I kept tally, the number of partnerships of individual households varied from three to fourteen out of a total of twenty-two households surveyed. This means that the households with the smallest networks had only three exchange partners during the survey period, out of a possible total of twenty-one, and the households with the largest network still failed to exchange with seven of the available households. The average number of exchange partners for the sample was 8.5. If the survey period had been longer, no doubt this average would have been higher, but even when critical events occurred (there was one death and one important visitor in the survey period) food contributions were not sent by *all* households, nor even by all households belonging to the same clan. Each household had its own private network, partly determined by close consanguineal and affinal ties but partly also by idiosyncratic considerations.

Taro gifts made to establish new relationships were of a different kind. In speaking of a 'new' relationship, I do not mean only those cases where gifts were made to persons hitherto unknown. Such cases were rare indeed. It may be justified, however, to speak of 'new' relationships when the nature of a relationship was changed dramatically, made significantly more intimate, as the result of a ceremony where gifts were made. Such a change would occur when one village invited another to a feast, thus terminating old hostilities and placing the relationship on a new footing. Similarly, a dramatic change in relationship would occur as the result of a wedding ceremony when two kinship groups, whatever their previous relation, would begin to regard each other as affines. On a smaller scale, some relationships are intimate only at the time of actual contact. An example would be guest friendships and trading partnerships. Here the intimacy has to be re-established on every one of the infrequent occasions when one partner visits the other. Even if there has been no conflict whatever, Orokaiva always ritually assume that a long-absent friend has become a stranger and the relationship must be restored. As far as I know, Orokaiva do not carry this notion as far as the Maori, who greet a long-absent friend as though they were still heavily in mourning for his death.

Taro is always given by the hosts when such a 'new' relationship is established. But in such cases the taro is uncooked, and still has the top attached to it. I was told that taro, in that form, still contained a spirit and was 'alive'. The ceremonial way of giving such taro is in the form of a pyramid-like mound, the tubers facing outwards, the tops facing inwards. On the top of the mound, a few taro are placed with the tops facing upwards. The mounds should be built on a *gaga*. It will be noticed that the position of the taro on the *gaga* is precisely the same as the position in which Totoima's son lay ('with his chest turned upwards') when his father attacked him.

If we compare this type of gift with the type considered previously, we notice several reversals of the symbolism:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Taro given for	*Maintaining relationships*	*Starting relationships*
Parts of plant given	tuber only	entire plant
State of preparation	cooked	raw
Donor's sex	female	male
Ancestral twin with which gift is identified	female sibling	male sibling

The giver of a feast is always a male. Taro is hardly ever the only gift made on a ceremonial occasion, as pigs, *hambo* etc. must also be presented. Nonetheless, taro is essential as a mediating element in the starting of a 'new' relationship.

What is the significance of taro gifts in this context? Sahlins' suggestion that staple food when used as a gift object is symbolic of hearth, home and mother seem less cogent here than in the case of gifts of cooked food discussed earlier. In previous chapters I have presented a method for interpreting actions aimed at the establishment of social relations. I suggested that some objects are believed to have a special potency in attracting partners and that this potency is believed to be due to the presence of the donor's spirit in the gift object and the transfer of that spirit to the recipient through the mediation of the object. The questions are these: why, and in what circumstances, can a *male* use taro for the mediation of social exchange? What is the mythical and philosophic charter for such mediation? What is the distinctive power of feast taro to compel the recipient to respond to the donor's wishes?

The spirit substance transferred by the *male* when he gives taro at a feast is derived from his ancestors who are present in the land and in the tops of the taro. Just which ancestors are thought to be present it is hard to say, but they include the dead of the lineage who have used the land and they also undoubtedly include the spirit of the original *dema*, Totoima. It is believed that only certain varieties of taro are capable of successfully transmitting spirit in this way. These are known as feasting taro (*pondo ba*). I obtained a list of them, but this list was not very instructive. It contained virtually all the taro varieties growing in the informant's garden, though I was able to identify a few grown varieties which were specifically stated to be unsuitable for feast taro. Only a small minority of plants growing in the gardens belong to these varieties.

Males can use taro for the mediation of social exchange only if they are feasting varieties and if they are displayed, complete with tops, in such a way that they may symbolically represent Totoima's son: lying on a *gaga* with their chests turned upwards. What message does this symbolism convey? Totoima's son appears in the myth in two apparently contradictory roles: that of victim (eaten by his father) and of victor (killer of his father). So much is indisputable fact. It is easy to see what the gift of a feasting taro might mean if we take this symbolism to its logical conclusion. The message would be: 'You may eat me now; I shall kill you later.' No informant actually explained this meaning to me and this interpretation is therefore no more than conjecture. It accurately represents, however, the actual traditional relationship between feasting partners. A man who gives a feast deprives and humbles himself; every one of his gifts is symbolically a sacrifice of himself. His feasting partner is, in a symbolic sense, his enemy with whom he is now becoming reconciled. In order to effect

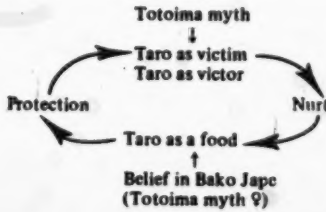
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5), but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

824 773

4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

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OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 125 592 between co-residence and commensality, notions which the Orokaiva themselves clearly do not regard as synonymous. Persons who are co-resident are always, in practice, at least in part commensal, they are not necessarily wholly so. Not only old people but also bachelors and young women, single or married, receive gifts of taro from other households of which they are the specific recipients. Food they receive in their own residence may therefore be classed as a gift if they have not supplied raw food to the housewife on the same day.

824 431 621 128 To what extent is there a notion that food gifts should be balanced as between donor and recipient? According to the statistics, perfect balance is uncommon and occurs most often where exchanges are somewhat infrequent. In Table VI/1, I classified households according to the degree of balance in all intra-village taro gifts made to persons resident in other households. The code number 0 indicates perfect balance in the total number of gifts sent and received; the code number 6 indicates an imbalance greater than the proportion 75:25. Intermediate code numbers indicate a lesser amount of imbalance. At first sight, Tables VI/1 and VI/2 suggest that little importance is attached to balance in food gifts. In more than half the households, the total imbalance exceeds the proportion 60:40. Nor does there seem to be an ideological charter enjoining a person who has received a food gift to return that gift in the near future. The donor says he expects no return gift. If one asks him why he has made the gift he never mentions services or gifts received in the past for which he may be reciprocating. He will say, 'because that man is my wife's father's sister's son' or whatever the kinship relation may be.

A more careful look at the figures, however, makes one wonder whether such indifference to balance is the whole story. Some informants stated that though the donor expects no return gift, the recipient often likes to make one. Some families are more punctilious than others in this respect. The most punctilious of all was the leading family of Seho (H5, H12, H13, H14, H20, H21). They all had an imbalance smaller than the proportion 55:45. Only one other household in the sample achieved this low score.

[739] In most of the households where there is an extreme inbalance, the explanation is that the household contains aged people who require help, or that the household is deeply involved in giving help to aged people. This factor accounts for the inbalance in households 1, 2, 3, 6, 7, 10, 18, 18a, and 19. The imbalance in households 8 and 9 is explained by the fact that householder 8 was [166] helping householder 9 to build a house. Householders 5, 15, and 17 were immigrants from Garombi who gave more than they received, probably because of an anxiety to become accepted and build up good relations in their new place of residence.

824 431 571 621 Finally, the notion of balance is implicit in the timing of many of the taro gifts. It was a very common practice indeed to make a return gift on the same day as a gift of taro had been received, or on the day immediately following. Though informants told me they were under absolutely no obligation to respond so urgently or to respond at all, the record shows that in practice they frequently did so. We must therefore conclude that the Orokaiva do have some notions which lead them to reciprocate taro gifts, even though there is no rule enjoining immediate balanced exchange.

I would suggest that the Orokaiva proceed from a notion that taro is a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/1

SIVEPE: TARO TRANSACTIONS BY HOUSEHOLD

Household Code No.	*Total Transactions*	*Sent*	*Received*	*No. of Partners*	*Degree of Imbalance**
1	58	40	18	9	4
2	37	1	36	6	6
3	41	26	15	9	3
4	57	35	22	9	3
5	101	54	47	14	1
6	70	45	25	4	3
7	87	24	63	12	5
8	56	33	23	3	2
9	71	40	31	6	2
10	58	21	35	5	3
11	68	36	32	10	1
12	117	59	58	8	1
13	85	44	41	7	1
14	101	52	49	7	1
15	60	34	26	11	2
16	60	37	23	13	3
17	79	50	29	14	3
18	62	9	53	10	6
18a	48	37	11	10	6
19	81	54	27	9	4
20	84	46	38	12	1
21	82	41	41	8	0

* Code: 0 = larger donor gives exactly 50% of gifts;
1 = larger donor gives 50–55%; 2 = larger donor gives 55–60%;
3 = larger donor gives 60–65%; 4 = larger donor gives 65–70%;
5 = larger donor gives 70–75%; 6 = larger donor gives over 75%.

mediating element in the perpetuation of social relations. Within a village, social relations of some sort exist between almost all the members. In my enquiries in Sivepe I came across only one instance of two men, both resident in Sivepe, who denied having or ever having had social relations of any sort with each other. There may have been one or two more instances I did not detect, but they would be very rare. Social relations between households in a village may range from very distant (when no taro gifts are exchanged) to very intimate (when taro gifts may be made four or more times per week). Many households have social relations which are close but not intimate, symbolised by taro gifts made a few times per month. The frequency of taro gifts is of course not the only way of symbolising intimacy, though it is the sign I found the easiest to quantify. It was my impression that those households which maintained the most frequent informal association with one another were also those who made each other the most frequent taro gifts. These were the households who were deeply dependent

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

924 431 621 571 on one another in sentiment, in economic tasks, in political support. They would tend to side with one another in village disputes. Thus, taro gifts were a ritual statement in which one household expressed its desire for close association with another.

Now, on this level of association, mutuality and reciprocity are obviously essential if the association is to be established on an equal footing. The return gift should therefore not be considered principally as an obligation (arising from a 'norm of reciprocity') but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of gifts is closely connected with the question of how intimate either side wishes the association to be. An increase of the frequency of gifts means a desire for a more intimate association. The recipient may wish to keep the association within certain limits. The Garombi migrants who gave more than they received seemed to be constantly trying to build up new alliances and were welcomed more warmly by some of the old residents than by others.

Failure to make a return gift of course does not always 'mean' that one is not interested in maintaining social relations of the closeness envisaged by the other party. There are many circumstances when people are not immediately in a position to make return gifts. In such cases I would not say that the recipient remains entirely without obligation, but rather that the obligation is delayed indefinitely. Thus a man may say he is giving food to his father or other senior relative because of some benefits received in the past. (He was himself fed by the senior person in his youth; he was helped with his bride-price, etc.) Or else a man will say that when his hosts visit his own village, he will then reciprocate. In fact guests customarily press their hosts to make an early return visit and hosts sometimes feel some obligation to do so. It is a pleasurable obligation no doubt, but it is clear that the purpose of such a journey is not to get one's taro back but to maintain the association.

It follows from this discussion that the households to which the most frequent taro gifts are made are those with which the greatest intimacy is desired. If the recipients, though fully capable of making equally frequent return gifts, reciprocate too half-heartedly, the donor household will probably reduce its gifts to the level acceptable to its partner. If the recipients are not capable of making equally frequent returns, the frequent gifts will continue, and the taro ledger will remain unbalanced. Thus, irrespective of the degree of balance, we may regard high frequency of taro gifts as a generally reliable index of intimacy of association. I am leaving out of consideration here the question, raised by Sahlins (1965), of whether degree of balance is determined by kinship distance. Exchanges of taro have a social as well as an economic aspect. Where the social aspect is uppermost (i.e. where the exchanges are not primarily based on need), they tend to be close and balanced, as long as both partners are satisfied with the prevailing frequency of interaction. Where the economic aspect is uppermost (i.e. where one partner is for some reason unable to harvest his own taro), no *social* importance is attached to imbalance and Sahlins' generalisation would probably hold for the Orokaiva of Sivepe.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *Clusters and Chains, Two Patterns of Intimacy*

How can taro gifts mediate close associations among larger groups than dyads of exchange partners? This involves a complex sociological problem that cannot be solved in the framework of the present study: why do men tend to give disproportionate attention to a very small number of their closest associates and much less attention to a larger group who are still close and trusted friends? A principle of allocation clearly operates here: intimate relationships demand more time and energy than can be devoted to the entire circle of close friends. But it is by no means clear what is the role of intimates as distinct from other valued friends. This hierarchy of association, whatever its explanation, is very evident among Orokaiva, not only in the way in which individuals spend their leisure time and compose their co-operative groups, but also in their allocation of taro gifts among their exchange partners.

In Sivepe the number of exchange partners maintained by a household varies from three to fourteen, with an average of 8.5. The first (i.e. most frequent) partner is involved in an average of 38 per cent of all taro transactions, the second partner in 24 per cent, the third in 12 per cent while the other partnerships account for only 26 per cent of all transactions. It is clear that the first and second partners are in a very privileged position in comparison with the others.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of interaction. My impressions, supported by the statistical data and some generalisations offered by informants, is that each household has a few preferential partners to whom it gives or from whom it receives taro at least twice a week, but often far more frequently. In this sense every household in my sample had at least two preferential partnerships. Ten households out of twenty-two had a third, five households a fourth and one (the Seho clan leader) had five preferential partnerships.

The data show that where households are linked by primary kinship, they mostly set up a 'preferential' taro partnership. Only 30 per cent of preferential partnerships, however, fall in this category. The rest can be accounted for only if land transactions, political considerations, and the total past history of personal relationships and transactions are taken into consideration.

For statistical reasons alone it would seem that preferential partnerships are worth some detailed investigation. They clearly add substantially to the number of intimates on whom an individual can count for support over and above those who can be depended on purely by virtue of membership of the same corporate group. In addition preferential partnerships are of crucial importance as a basis for close co-operation between sets of persons larger than the exchanging dyad.

In Fig. 8, all preferential partnerships in Sivepe are shown in sociographic form. A distinction has been made in the sociogram according to the extent to which social preference is mutual. Households A and B may be said to stand in a 'closest mutual relationship' (marked by a hard line), if B is a first or second partner to A and A is a first or second partner to B. If none, or only one of these conditions are satisfied, the relationship is shown by a wavy line.

Though a full analysis of taro gift patterns has to await separate publication,

[TEXT CONTINUED ON PAGE 131]

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5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VI/2

SIVEPE: TARO TRANSACTIONS BETWEEN PREFERENTIAL PARTNERS

Household Code No.	*First Partner*	*Sent*	*Received*	*Second Partner*	*Sent*	*Received*	*Third Partner*	*Sent*	*Received*
1	H17	7	11	H2	16	0	H5	4	3
2	H1	0	17	H3	0	11	H17	1	4
3	H2	12	0	H17	4	4	H4	2	5
4	H5	15	12	H3	5	2	H7	6	0
5	H4	12	14	H6	11	7	H21	11	6
6	H7	33	12	H5	7	11	H4	2	2
7	H6	14	30	H19	5	11	H4	0	6
8	H9	13	16	H10	18	7	H7	2	0
9	H8	15	15	H10	16	7	H13	4	2
10	H8	7	17	H9	7	12	H11	3	4
11	H12	10	11	H20	18	4	H18	6	2
12	H13	17	19	H14	15	19	H11	12	10
13	H14	21	17	H12	19	16	H9	2	3
14	H13	16	21	H12	17	16	H15	6	8
15	H14	8	6	H16	6	7	H12	3	5
16	H17	8	6	H15	7	6	H7	7	0
17	H1	11	5	H16	6	8	H18	7	3
18	H18a	0	15	H17	3	7	H11	3	6
18a	H18	15	0	H19	8	4	H17	3	3
19	H7	24	5	H18a	4	8	H12	5	6
20	H21	28	19	H11	4	8	H5	4	4
21	H20	22	20	H5	6	11	H11	4	1

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

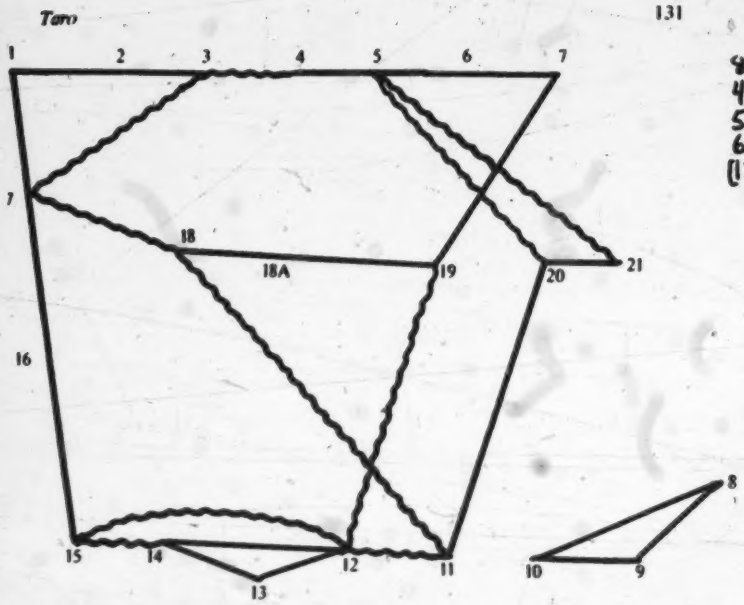

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Fig. 8. Taro gifts in Sivepe: sociogram of preferential partnerships. Households are numbered as in Fig. 9 (see p. 202). Straight lines indicate closest mutual relationships, while wavy lines indicate other preferential partnerships.

some generalities are given here, related to our general argument. Taro gifts were used especially to mediate relationships between neighbours, close kin, exchange partners, and with certain persons of special status such as leaders, magicians, and the like. The Garombi immigrants used the system somewhat differently from the old residents, as the former were more actively seeking new partnerships, especially with the more influential old residents.

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Graph analysis shows two chief patterns: the cluster and the circuit. From the viewpoint of the quality of social relationships, the cluster is obviously to be preferred, as it provides intimate one-degree links between all members of the community. No doubt the Orokaiva's traditional predilection for small villages of six households or so arose from the comfortable feeling that all households could then be intimate with each other. We find several clusters among Sivepe inhabitants, especially among Seho and Sorovi households, but if preferential partnerships did not exist except inside these clusters, the result would be a division of the village into very loosely connected cliques.

In fact, we find a second connecting principle which I have called the circuit, as it resembles the Hamilton circuit familiar in graph theory. A circuit of *n* households (H1, H2, H3 . . . , Hn) is defined as a set in which H2 has a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 431 571 621 128 'closest mutual relationship' with H1 and H3; H3 with H2 and H4 and so on. Closure of the circuit is achieved if Hn has a 'closest mutual relationship' with H(n – 1) and H1. The largest such circuit, or near-circuit, connects the great majority of households of all clans and may thus be considered a unifying principle for the village as a whole. The second, much more strongly constructed, links eleven households of the Jegase-Sorovi clans, but includes not a single Seho household. Even though this circuit of ten households contains two flaws (wavy instead of hard lines), it is most improbable that it would turn up by chance.

How circuits are generated in time becomes clear from a study of the recent immigrants from Garombi. Householder 17, before leaving Garombi, had no particularly close links in Sivepe; yet our survey shows him as having two preferential partnerships with old-time Sivepe residents, one Jegase and one Seho (H18 and H16 respectively).

A curious feature is the almost uniform practice of choosing immediate neighbours as preferential partners. It would be too simple, however, to suppose that there is a rule whereby one must have these specially frequent exchanges [361 209] with one's neighbours. Certainly I never found a trace of such a rule. On the other hand there are quite complex considerations in the choice of house sites, such that there is the maximum correspondence between physical and social distance from others in the village. When social relations between neighbours become bad, one of them is liable to shift his house elsewhere, so he can be close to an intimate.

824 431 571 621 128 614 The circuit corresponds remarkably well to the Orokaiva system of clan formation. Thus the Jegase 'clan' in Sivepe is actually constituted by four totally unrelated groups, three of which migrated to Sivepe since the beginning of the century and which gradually grew into a single clan by a process of fusion (See Chapter X). They now occupy six houses and ancillary buildings on the Jegase-Sorovi circuit, and three houses which form a chain attached to that circuit, i.e. a total of nine houses. Each 'lineage' forms a short chain of its own, and the chains are mostly linked together by uterine bonds. Now it is precisely these uterine bonds which brought about the fusion of the groups of migrants into a single clan. Yet this clan was still far more fragmented than Seho. Therefore, there was not much incentive to clustering, which requires far greater intimacy than existed among the Jegase.

824 431 571 621 128 It is precisely the lack of intimacy between small social chains that produced the Sivepe circuits. As we have seen, these circuits are mathematical models built after the reality of residence and taro exchange patterns. It is characteristic of a circuit that no two households share the same 'closest mutual relationships'. Thus H2 and H3 have a 'closest mutual relationship' but H3 does not share the 'closest mutual relationship' between H2 and H1. It is in this respect that a chain is quite unlike a 'minimal cluster'. The chain arrangement has two practical consequences: if H1 falls out with H3, H2 will mediate; and if H1 and H3 wish to co-operate, H2 will normally be a party to the arrangements as these tend to be made in front of his house, in his hearing and probably in his presence. The structure provides for the possibility that H3 may draw in H4, H4 may draw in H5 and so forth. Actual cases of such political action will obviously tend to be

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

less tidy but lateral communication by means of intermediaries was a pattern to be frequently observed.

The topographical position of a house was therefore at the same time a fixed position in the taro exchange network and in the network of alliances. One could almost tell from where a person lived what that person would do. When fierce arguments and hot abuse rang through the night as two households held a cutting dispute with each other, those households were likely to live at opposite ends of the village, either at far ends of the chain or at opposite ends of a wider and looser chain of associations which comprised the village as a whole.

The Seho clusters and the Jegase–Sorovi chain were at opposite sides of the village, but were linked to each other by two connecting chains, consisting largely of people who lived at the outer ends of the elongated village rectangle. One of these connecting chains was formed by men who came from Soroputa and who married wives from the Seho clan. (H5, H20-H21, H11, H12.) The other connecting chain consisted of Seho and Sorovi householders whose distinguishing feature was that they maintained rather wide taro exchange networks, had peaceful natures and tried to keep on friendly terms with almost everyone. (H14, H15, H16, H17). The links shown on the sociogram between the Jegase-Sorovi chain and the Seho people are of great interest as they show the degree of closeness between the two main clan formations (Jegase and Seho). Judging from the taro exchange network, these relations are not critically remote but on the other hand not so close that the two sides are in any danger of losing their separate identity.

Leadership in the two clans differed in a manner that is clearly recognisable on the graph. Seho had an aristocratic type of New Guinean 'big man' leadership, the leader (H12) having hardly any real intimates except primary kin who were rather numerous. These primary kin, however, between them, had intimate links with nearly everybody in the village. The leader had preferential partnerships and close connections with a few but not all the Garombi immigrants, using his close contacts as middlemen. The Jegase sociometric star (H5) had a far wider exchange network, including all the Garombi families, and almost nightly there were large gatherings in his *aura*. On the other hand, his primary kin links were far fewer; he depended on the systematic fostering of new associations for his challenge to the Seho leadership. Thus cluster and circuit, the two types of association found in Sivepe, each had its own characteristic form of leadership.

6. *Structural Implications*

We have found that gifts of cooked taro are essentially a woman's gift, and that these gifts, if made continuously at short intervals, are a ritual statement of the maintenance of intimacy between pairs of households. The exchange may be stated formally in the following diagram:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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MODEL 19

How can an exchange model of this sort establish enduring solidarity in a village containing as many as twenty-two households? In a small cluster of households solidarity can be established by the device of every member exchanging with the required frequency with every other member.

But when there are twenty-two households, the same pattern could be maintained only if twenty-one 'closest mutual relationships' were kept up by each household. This is manifestly impossible as the relationships require, not only regular gifts of taro, but also close and frequent association.

Several devices for increasing the range of a solidarity network have been explored in Lévi-Strauss' theoretical study of marriage exchange (1949). They may be classified as various forms of direct and generalised exchange. Theoretically, any of these devices might have been used to cope with the problems of taro exchange. There might have been a rule delaying the return of gifts, or even forbidding the acceptance of taro gifts from those to whom one had given taro. But these devices would have made an exchange network of twenty-two households theoretically feasible. None of them is, in fact, found among the Orokaiva. Instead we found the pattern I called a chain.

The problem which a circuit-like structure attempts to solve is that of establishing or maintaining amity and solidarity between two parties (A and B) who are not linked by bonds of any special intimacy. The procedure followed is that A and B use one or more persons to mediate between them. In the simplest case, where A and B are separated by only one link in the chain, they share the same intimate associate who can act as mediator. If they do not share an intimate, i.e. if they are separated by two or more links in the chain, an accommodation may be reached through a series of mediators who act vicariously on behalf of the principal parties. The arrangement, in its simplest form, is shown in Model 20 which may, of course, be extended indefinitely by inserting intermediate exchange cycles. In practice, this model would be utilised rarely between neighbours living only two houses away from each other. It is, however, a pervasive pattern of Orokaiva social life. It is regularly employed in the making of requests by someone who is not an intimate. A refusal always offends. But if a request is made through a mediator both sides may pretend it has never been made. At least, no hard words are spoken. There is a customary blank, expressionless style which is used for the transmitting of requests – symbolic gestures of neutrality. The mediator avoids all risks of endangering his own alliances while still making what effort he can to satisfy the party seeking the benefit. If the mediator's intervention is successful, this undoubtedly increases his standing and creates an obligation on the part of the beneficiary.

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MODEL 20

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Mountain Orokaiva

628 In dealings between different villages, the use of a chain of mediators is extremely common. A will approach a fellow-villager B, who has connections in the other village; B will go to the other village and see C, his closest contact. C will then most likely go to D, one of the intimates of the person E with whom A desires to deal, and D will look for E. During the ensuing conversation, A and E will say very little, and it is the intermediaries who do most of the talking.

824 431 621 571 The intimate associate, often a neighbour, is thus extremely valuable, as he opens up a vista of alliances to which his partner has no easy access. A man's effective social network is therefore much wider than any network he could personally maintain by direct exchanges. Most of his effective alliances are vicarious and can be reached only through intermediaries.

The social network maintained by a sizeable circuit is therefore very considerable. It is greater than any solidarity group the Orokaiva could build up by maintaining their patrilineage bonds or by exclusively exploiting any other principle of kin group solidarity. The significance of gifts of cooked taro is that they maintain the intimate bonds needed to retain vicarious access to this network. Cooked taro mediates not only the exchange of intimate attachment, but also the exchange access to *alter's* private network of alliances.

If a village formed a perfect cluster, this kind of exchange could not happen, as all members share exclusively each other's most intimate alliances. Where a circuit structure prevails, a man's partner always has an intimate relationship he does not share, so that the man is dependent on his partner for access to that partner's distinctive exchange network. A society whose solidarity depends heavily on direct immediate exchange may have a rather wide network of alliances as long as it has strong institutional patterns of mediation. The importance of these patterns in Orokaiva society cannot, of course, be gauged by reference to taro exchanges alone, but it is now possible to inquire to what extent the model I have constructed on the basis of taro exchange applies in other areas of Orokaiva culture.

Clearly this model, if transposed to the level of marriage exchange, would include elements of both direct and generalised exchange. The cluster resembles direct exchange: the maintenance of relationships within the system depends entirely on benefits received from all households included in the system. On the other hand the chain has the circular form characteristic of generalised exchange. It includes households who receive no direct benefits from one another except the vicarious one of joint membership in the system. In some respects the chain, of course, differs fundamentally from a system of generalised exchange: the taro travels in both directions around the circle. But I have emphasised that taro is not strictly an object of exchange but of mediation. If there is a need to establish intimate social exchange between remote members of a chain, this will not be, as a general rule, for the exchange of identical benefits. Thus the benefits travelling in each direction along the chain may differ and may not belong to the same sphere of exchange.

While relationships within a cluster are very intimate, those within a large chain may require delicate diplomacy. Yet a chain does not, in my experience, contain members who are actively hostile to one another. The exchange of cooked taro has to to with the maintenance of friendly relations, and collapses if serious conflict arises. The management of serious conflict requires different

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Mountain Orokaiva

objects of mediation, such as pig meat, which will be discussed in the next chapter.

REFERENCES

1 The propagation of the taro plant (*colocasia esculenta*) is illustrated in Fig. 7.

2 Waddell's survey excluded gifts to household members. This may explain informants' initial hesitance in mentioning them.

into two separate realms: the human world, comprising villages and gardens, and the wild world, *arirl*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

574 782 431 437 [572] successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a period of hostility. In all such cases the sacrificed pig serves as a gift object to the persons whose friendship is being sought. These persons may be clansmen, uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] [754] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the husband's sister, etc. to the wife's relatives. Feasts given on the occasion of peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

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This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

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Mountain Orokaiva

We shall need to consider exchange from two points of view: first, as in the preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be useful first to set this couple into a wider ecological and cultural context. Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female opposition is usually ascribed. Very often these plant couples are grown in close association with one another and it is claimed that they will not prosper unless they are planted together and that, in their wild state, they are also found together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*su*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, and both are consumed between meals. Both nuts grow on palms. Both foods have notable (though different) biochemical effects on those who eat them. Both foods are standard gifts made to strangers who visit a village, a coconut being offered as refreshment immediately upon arrival while betelnut is chewed (along with *hingi* pepper and lime) during the conversation. The two nuts are also associated in ritual use. At mortuary feasts, the most important gift objects are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the deceased. Finally, coconut and betelnut are associated in an important myth which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

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OJ23 Orokaiva OJ23
Mountain Orokaiva

824 772 partners, while objects of mediation are not imaginary and magical, but have a real existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 [252] [262] [272] [431] Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the squeezed flesh produces coconut cream in which taro and delicacies such as river crabs may be cooked. Young coconuts are cut open at the top and used for a refreshing drink. Coconut is reserved for two kinds of everyday food gift: cooked dishes offered to guests and young coconut offered to visitors on arrival. Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other [262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary [764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] [146] Coconut is correctly believed to be a valuable adjunct to children's diet, as it provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut grew miraculously overnight. Children do eat a good deal of it and it is also fed [231] regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on [235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 778 Coconut oil is used as a cosmetic for hair and body, not only to enhance beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in [302] the sense that the fluid would drive away dangerous spirits (1930: 175). With [789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of [881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these [761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help [764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

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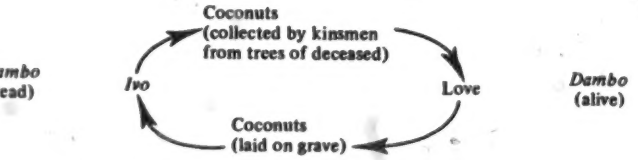
Mountain Orokaiva

of coconut gifts, in a great variety of sometimes quite casual relationships, the most crucial communication occurs in the large-scale, highly structured mortuary feast where we may regard the archetypal exchange situation as occurring between brothers-in-law (*dambo*), one of whom is dead while the other is alive. The exchange cycle is as follows:

MODEL 28



4. Areca *as Object of Mediation*

Areca, a mildly narcotic fruit, is chewed with lime and pepper (*hingi*) when persons, often from different households, are sitting together to relax and talk. It is always offered when friendly visitors arrive from other villages. It is chewed by women as much as by men, though by Waddell's statistics men act more frequently as donors of *areca* in the exchange network (71 per cent of recorded cases). *Areca* is the only Sivepe food product of which, by Waddell's statistics, more than half the disposals are to other than village residents. Table VIII/1 summarises the number of transactions but does not show that Sivepe is an exporter of betelnut, while lime is imported. Much of this export is in barter but sales for money also occur.

When friends from the same village are sitting together betelnut is shared in much the same way as beer in our culture, i.e. people offer nuts to each other but expect to come out approximately even. At visits to another village, it is more common for the principal visitor to make a bulk donation. The hosts share out betelnut among their guests either by throwing a few nuts to each person or (on more formal occasions) by the principal host presenting the principal visitor with a large bunch, leaving the latter to share them out among his people. The visitors also hand a nut to anyone in the host group who has no nut to chew. The two principals will distribute some of the *areca* they have received to chosen persons within their own group.

Betelnut is treated as a valuable commodity. It is never given away in heaps like ordinary garden crops. Its value is undoubtedly associated with its narcotic properties. At social gatherings its main effect appears to be that it creates a relaxed and genial atmosphere, breaking down hostility otherwise likely to exist between groups. Its magical use is so widespread that its supposed effect is hard to determine from the evidence of medicines. Many medicines consist of *areca* chewed with some specific purpose, and as such it is applied in hunting magic, magic for drumming, and magic against a variety of diseases.

In ritual its role is often the same as coconut, e.g. at mortuary feasts. The exchange cycle shown in model 28 applies similarly to betelnut. Yet, just as its

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OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

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Mountain Orokaiva

because of the dangers he fears from contact with the female. By offering betelnut, woman overcomes this reluctance in man and draws him into the sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth and custom.[3] According to the myth it is the man who gives betelnut to the woman, whereas we know that in girls' initiation ritual and in courting custom, i.e. in the most structured betelnut presentations, the *woman* plays the role of donor and the plant is classified as feminine.

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it several times and Williams also recorded it (1928: 122). Here follows a summary of a version I collected on tape in the Orokaiva language: A beautiful girl, noted for her remarkable breasts, has the misfortune to kill all the young men with whom she sleeps. Her breasts prick and kill them. She warns them to sleep against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

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OJ23 Orokaiva OJ23
Mountain Orokaiva

773 824 539 But this handsome young man, also, is pierced by the girl's breasts and killed. The brother buries his brother-in-law, then kills his sister and buries her beside the other grave.

After a mourning period the brother takes his wife to the two graves. They find a cocopalm in full bearing above the sister's grave. An *areca* palm has grown over the grave of the young man. Heaps of dry nuts are lying on the ground. That is how these two palms originated. He says:

> Wife, as we come close, we see coconut and *areca* growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry *areca* nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune (*embavo*) and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the *areca* growing on *dambo's* grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them, they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, cocopalms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths (*peperuma*) which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I began to understand that my sister had killed the men I had carried to their graves and buried. . . .
>
> When a man has collected *areca*, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the *areca* is a girl; for this reason, girls give *areca*.

773 824 539 582 On the level of social structure, this myth is concerned with the Orokaiva institution of sister exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5 per cent of all marriages), sister exchange marriages are strongly idealised, as I have shown elsewhere. In this myth, a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can sleep safely, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister exchange marriage.

773 824 539 On the level of social exchange, the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the

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Mountain Orokaiva

crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilising one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and *areca*; (*c*) why the Orokaiva consider coconut masculine, *areca* feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and *areca*, namely those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the cocopalms and *areca* palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted: namely that it is customary to place coconuts and *areca* nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and *areca* nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptical manner, the hero lists or implies three sets of rules concerning gifts of coconut and *areca*, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

	Areca	*Coconut*
1(*a*)	The man fetches the nuts from the tree.	1(*b*) The woman *helps to fetch* the nuts from the tree.
2(*a*)	The man gives the nuts to the woman.	2(*b*) The woman cooks the nuts for the man.
3(*a*)	The girl offers nuts to her lover and carries an offering of nuts at initiation.	3(*b*) At a girl's initiation, a man prepares coconut oil which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only *areca* but also coconuts from the high palms on which they grow. The woman may help by collecting coconuts once they have dropped to the ground, and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasise that we are here being taught an ideology which requires the opposition.

The hero's second opposition centres on the culinary use made of the nuts. *Areca*, in opposition to coconut, has no place in the kitchen. The fact that coconut is also often eaten raw would weaken the opposition, but this is

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773
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suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that, in ritual, girls give *areca* to men, but the opposite statement is omitted, viz. that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, *areca* feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a 'fact', but is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra; – *ainge eto* ikena.

This passage, (translated above, p. 17) contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man. *Because* coconut belongs to a man, *therefore* coconut is masculine. *Because areca* is a girl, girls give *areca*. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

When I heard this tale, I could not help arguing with my informant. I said: if the coconut grew out of the girl's grave and she later gave the coconut to a man, would it not follow then that the coconut is feminine? My informant received this argument with a tinge of pity. It proved to him, if any proof were needed, that white men are indeed quite incapable of abstract reasoning. It took him some time to understand what problem I could possibly be having. Finally he said: 'The girl intended these coconuts as gifts for a man; therefore, they must be masculine.' At that point I remembered I had heard this argument somewhere before: in Levi-Strauss' introduction to Marcel Mauss, *Sociologie et anthropologie*. If we produce something that is *intended to be given away*, it was called into being by a prior relationship between donor and recipient, and could not be utilised by the former without losing its predetermined nature.

We find the same line of thought elsewhere in Orokaiva culture: pigs cannot be eaten by those who reared them because they are, from the beginning, set apart as gift objects. The most striking and intimate instance may be found in a myth of a woman who has a detachable vagina. She pretends to her husband she has lost it: 'I dropped your vagina in the water.' The husband looks for it between the stones of the river: 'I am looking for my vagina.'

In all these cases the gift object partakes of the nature of the recipient. However, the narrator appears to follow a quite different line of reasoning when he says. 'Because *areca* is a girl, girls give *areca*.' There is an apparent contradiction here, resolved only when we recognise that two different types of gift must be distinguished – perhaps we are allowed to call them metaphoric and metonymic. If we call a coconut a man or a man a coconut, we are using a metaphor. Furthermore, if we proceed to call an *areca* 'a girl', we are setting up a metaphoric opposition (coconut/*areca*) which corresponds to the real opposition (man/woman). When Sperber (1968) speaks of 'code structures', he is

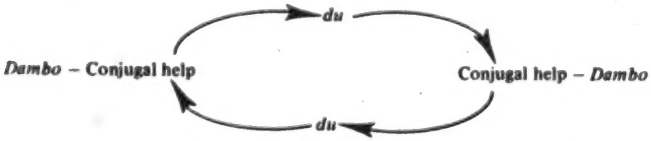
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

principally referring to classificatory systems built up from such metaphoric oppositions. When I use the term 'metaphoric gift', I mean a gift about which we are told in a story, the message of the story being that gift and recipient are metaphorically identical. The point of the story is to establish the symbiosis of men and women, the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bullroarer, golden apples, mirror, knuckle-bone, tuft of wool) which defined his nature. In the same way, in Orokaiva myth, men are given a coconut nature and women an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognised as a man because the palm germinates slowly and the fruit comes to maturity slowly ('it comes slowly'). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. *Areca* may be recognised as a girl because it germinates and comes to maturity quickly – the fruit matures faster than the coconut. Likewise woman is quick to be sexually aroused and to feel desire for a man. In this analogy the botanical facts are evident but the psychological generalisations describe no more, perhaps, than Orokaiva role expectations.

We may clarify the myth and its philosophical message to a certain extent by an analysis on the level of exchange cycles. The fundamental cycle is obviously the following:

MODEL 29



This is the model of sister exchange marriage where two men become brothers-in-law by each giving their sisters (*du*) to the other in marriage. If we now remember the identification between woman and betelnut (*sā*), and the social relationship which is considered normal between *dambo*, we may substitute as follows:

MODEL 30

We thus derive the rather interesting conclusion that the sense of an exchange of betelnut between men is that they are symbolically exchanging sisters. This is a rather bold conclusion which is best left as a speculation to be explored in later

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

enquiries. The same applies to a second conclusion that may be derived from the myth: that a man who gives a visitor coconut to drink is symbolically giving his own sexuality.

6. *Analysis of the Myth*[4]

As these implications of the model may arouse scepticism, a more analytical study of the myth seems desirable. One procedure which may lead to clarification is to compare the coconut/betelnut myth with the myth of Totoima discussed in previous chapters. The structural homology between the two myths is obvious enough. In the Totoima myth a *man wittingly* killed and *ate* a *son*, was transformed into *pig meat*, and distributed to mankind. He *did not intend* to make any gifts nor were any intended for him. In the coconut myth a *woman unwittingly* killed but *did not eat* a *spouse*, was transformed into *coconut*, distributed to mankind. She *intended* to make a gift and a return gift was intended for her.

We may isolate three distinctive features. On the ecological level we find an opposition between two types of symbiosis. The Totoima myth shows a predatory cycle: pig eats taro; man eats pig; thus strengthened, man causes more taro to grow. The coconut/betelnut myth shows the association of two plants always growing together, such that the presence of the one may be thought to stimulate the growth of the other. On the social level we find an opposition between the kin relationships holding between the principal participants. They may be represented as follows:

In the Totoima myth, the critical transaction was between the senior and junior generation, while in the coconut/betelnut myth it was between the male and female characters. Psychologically, the opposition was that in the Totoima myth the protagonists were motivated to kill and eat each other, while in the coconut/betelnut myth they were motivated by sexual love.

Both myths are concerned with exchange, viewed ecologically, socially and psychologically, but in the first myth exchange is diachronic, whereas in the second it is contemporaneous. Where exchange is diachronic, B cannot reach the fullness of prosperity without the death of A, a process symbolised ecologically by predation, on the social level by intergenerational competition and on the psychological level by the desire to kill the father. Where exchange is contemporaneous, B cannot reach the fullness of prosperity without the simultaneous prosperity of A, a process symbolised ecologically by plant associations, socially by the marriage relationship and psychologically by conjugal love.

Diachronic exchange is, on the ecological level, a familiar and empirically verifiable fact. On the social level, however, the competitive and negative aspect

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified with it. Identity, in this instance,[1] is not defined as attached to an individual but rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will henceforth regard it, in the same sense, as a symbol of identity. The ornament is then called an *otohu*, a term to be defined later. It is worn by its owner and those who see it recognise it as a symbol of its owner's moral integrity. It indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

ceremonial circumstances, but *hambo* are freely exchanged between partners. All the characteristics already described of such objects of mediation as land, taro and pigs probably apply equally to *hambo*, though my evidence on this point is far less complete, due to the very large number of magical substances that enter into the construction of *hambo*. They are not, however, symbols of identity.

On a functional level, one may regard the *otohu* after the analogy of a membership badge to some association or even a credit card. It indicates to others that they can safely carry on transactions with the bearer. On a structural level, the two types of identity symbol – the plant emblem or *hae* and the *otohu* – constitute, in combination and in their interrelation, the reality of the entire Orokaiva social system. This system is dominated by two principles: corporate groups bound to a system of rules governing their co-operation and a system of exchange between corporate groups on which they depend for vital benefits. The *hae* symbolises membership of the corporate group whereas the *otohu* symbolises participation in the system of exchange. There are several significant symbolic contrasts: the *hae* is a natural object (usually a plant), never given or lent to anyone, deposited as a sign to members of the corporate group that corporate rights have been used by the depositor, but never openly shown except to signal anger felt towards members of the corporate group and a resolve to break the relationship. In contrast the *otohu* is a cultural object, lent to relatives who are entitled to wear it, but otherwise never deposited or transferred, and always shown conspicuously by the owner when he contemplates transactions outside the corporate group.

While a *hae* is transmitted automatically, the conferring of the *otohu* is an important ceremony that will be discussed in detail in this chapter. This discussion will be followed by a summary of the available evidence on the use of *hambo* (other than *otohu*) as objects of mediation in social exchange.

2. *The Nature of Otohu Ornaments*

Most ornaments are acquired by hunting, foraging, barter, purchase or inheritance. These may be regarded purely as decorations (*di* or *hambo*) and there are no restrictions on who may make or wear such ornaments, which are freely disposed of by barter or sale. The *otohu* is not distinguishable from other *hambo* except on the basis of specific knowledge of local practice. Some families have a particular shell which is their *otohu*, others may use a particular arrangement of hornbill beaks. Others again may have a special way of decorating armlets of white cuscus (*pauri*). There are many very beautiful and elaborate *hambo* which are not *otohu* and other much simpler ornaments which are *otohu*. Where large shells are *otohu* these are worn by themselves, on the chest or suspended on the side of the owner's betelnut bag. Other *otohu* are added to what would otherwise be an ordinary *hambo*: it is the addition of the *otohu* object which makes a *hambo* into an *otohu*.

In the earliest literature on the *otohu* it was regarded as an 'homicidal emblem'. Beaver (1920) reported that a man-slayer, having undergone some form of purification or exorcism, might at some convenient time receive his *otohu*. He gave two lists of objects that were supposedly so used, one for the coastal and central tribes (eight items) and one for the Wasida and trans-Kumusi

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind.

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo*'s association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function.

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. It always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 of the 'husband' who either gives a woman in exchange (direct marriage
121 exchange) or else makes some kind of reparation for having deprived his
562 exchange partner (generalised marriage exchange).
582

REFERENCES

824 1. Erikson, describing 'the beginnings of identity' in the adolescent, comes
571 rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, *when a variety of social roles become available and, in fact, increasingly* coercive.' (1963: 235).

881 2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'iniation' into an 'initiate'.

000 3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

614 Similarly, the fact that these groupings together call themselves a clan (*javo wahai*) does not imply the actual existence of agnatic connection. The term means 'one name', and that is all they share, except for uterine links which buttress the social relations between them. The clan name is important as a symbol of political identification. The close bonds between the clan segments are evident in residence patterns, in daily intercourse and mutual assistance in practical matters, though not in ritual or other formal organisation.

614 824 The second principle of grouping is the plant emblem (*hae*), already recognised by Williams (1925, 1930) as important in the Orokaiva social system. Williams describes it as 'a distinctive emblem or associate' of a clan, though he recognised it could belong merely to a segment of a clan. Most of them are vegetable species, though almost any natural or cultural object may be designated as *hae*. Williams lists three main uses: as an identity token (to mark a visit by the owner), as a mark of individual abstinence (a self-inflicted taboo, usually shown to indicate a grievance) and as a village taboo post (prohibiting [993] access). The *hae* is regarded as an ancestor, which does not signify, as Williams carefully pointed out, that men believe themselves to be physically descendants [553] of plants, but that the ancestor was a man bearing the name of that plant. Clan and personal names are commonly plant names and often the *hae* of a clan and its name are identical. On the question whether the *hae* is a totem, he remarked that, whatever we call it, 'it will be obvious that it is very much like one.' He noted some forms of religious respect toward *hae*, notably eating and naming taboos.

614 824 To this information we may add that in our experience the term *hae* is frequently used to describe a social group made up of persons sharing a *hae*, and that the group to which it is applied is not the clan (*javo wahai*) but a smaller formation often about the same size as a 'clan segment' or 'lineage'. As such, they are probably the basic larger unit of Orokaiva social structure.

Every individual respects a number of paternal and a number of maternal *hae*. Theoretically, a person passes on his father's but not his mother's *hae* to the next generation so that the *hae* would form an agnatic group. Most individuals have about five *hae* in regular use. I recorded forty-two *hae* names in a population of 135.

There would normally be one *hae* common to a *javo wahai*. Less wide-ranging [582] and more distinctive *hae* would often be of more social importance. Those who were related to the same distinctive *hae* would co-operate in marriage and [611] mortuary payments and maintain a strict exogamy rule. Though they claimed their group to be composed wholly of agnates and children of agnates, there were in fact several cases of uterine transmission for more than one generation, especially where marriages were uxorilocal. Some *hae* became unusually popular, like *topu*, a tree name which became a *hae* after a Sivepe woman died by falling off a *topu* tree. She was given the necronym Topugoru, after which all her lineal descendants adopted *topu* as a *hae*. In other instances again, persons sharing the same *hae* were quite plainly unrelated in a physical sense. In fact the membership of none of the eleven most numerous plant-emblem groups was drawn from a single clan segment or even a single local clan group.

It follows that the social group called *hae* never has a membership identical with that of a lineage, if we use that term in the sense of Crocombe, Hogbin or

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* (including non-consanguines) were present, but where clansmen of different *hae* had no business to be present.

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory siblings) but permitted and common between cross-cousins. One task of the present essay is to resolve these contradictions.

Williams, furthermore, confessed himself unable to find any positive marriage regulations, i.e. 'any prescribed classes into which a man is obliged to marry' (1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*.

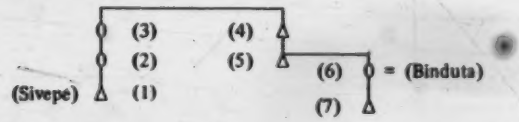
The 'four forms' were: purchase, exchange, elopement, and capture. Marriage by capture used to be very frequent and a regular aftermath of cannibal raids. Williams reports that, under this form of marriage, relations between affines often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like.

Elopement marriage likewise used to be very frequent. Williams reports that it

601 Within the village, two different principles prevail according to the presence or absence of a generation difference. Where a generation difference exists, opposite sex linkages are always expressed in terms of address. A mother's brother is always called *epe*. The *epe/ahije* bond is based on mutual affection and voluntary support, whereas the *mama/meni* bond is based on strong mutual obligations and an authority/obedience relationship. On the other hand, collaterals of the same local clan group will never call each other *simbo* even though biologically they may be cross-cousins. They use sibling terms and are strictly bound by exogamy rules. In a multi-clan village, collaterals of different clans will sometimes use sibling, sometimes cross-cousin terminology. Here the criterion is whether the persons concerned shared a plant emblem (*hae*).

582 614 824 A rule that was expressed to me often and forcibly was that people should not marry if they share a paternal or maternal *hae*. The relationship of a person with his *hae* is one of complete identification. If a man says that his *hae* is *sasaha* grass, he means that *sasaha* grass is his 'ancestor' and that he himself *is sasaha* grass; i.e. he is completely identified with it. If two people are identified with the same plant in this way they are siblings; they cannot possibly be anything else.

601 602 In general therefore a *simbo* is someone with whom one does not share a *hae*. This rule obtains whether or not *ego* and *alter* live in the same village. A study of actual kin relationships between *simbo* in different villages bore this out. A typical *simbo* relationship would be between *fafasiso* children/*famobrososo*. The *fafasi's hae* would be transmitted to her son, but not to her son's children. The latter would therefore share no *hae* with the grandmother's natal family. Some *simbo* relationships are far more distant than the one quoted here. A typical example is the following:



Here the *simbo* relationship links families of two villages, Sivepe and Binduta. The genealogical pattern may be accounted for by extremely strong attachment between siblings of opposite sex (*du*), and for the tendency for this strong attachment to be reproduced in the next generation. The genealogical connection between *simbo* often passes between two or more of these *du* linkages. A person thus tends to have numerous *simbo* scattered in many villages with some of which has own village may never have intermarried. Even a limited amount of intermarriage between villages may set up a good number of *simbo* links between them, as the links of filiation and siblingship to which the genealogies refer are often merely classificatory. For instance, the individuals numbered (3) and (4) in the above diagram were not true but classificatory siblings.

It will be noticed that the *simbo* category can be defined only by a series of negative rules. It is a set of distant kinsmen which remains when positively

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together [462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

● [824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

Appendix D

Plant emblems[1]

613 [824] The members of Bebehupa lineage have the plant-emblem commonly associated with the dispersed clan branch, sesevo grass,[2] as their lineage emblem or erahu.[3] The Sesevopa lineage is a small group closely associated with the Bebehupa people for many years and informants, when asked to explain its name, suggested that it was descended from a Bebehupa woman and that the new lineage referred to its ancestress by the name of the erahu of her group, i.e., as Sesevoja, and themselves became known as Sesevopa. This explanation may reflect the present relative numerical strength of the groups and the process of segmentation may have been quite different in fact.

One unnamed genealogical branch of the Bebehupa lineage has taken the seege bush as an additional erahu. The Berekipa asserted that in practice they as a group would never use sesevo as an emblem, though they accept it as having been the emblem of Jegase men in this neighbourhood. Both the name 'Berekipa' and their own erahu, the simboro plant, were adopted (in circumstances which we could not ascertain) from the so-called 'people' of both the mother of the senior householder, and of the patrilineal ancestor of the other householders. We could not fix any historical details of the connection between this 'group' and either the Bebehupa or the Arehu. The latter also use simboro as an erahu, in addition to their own topu (fig?)-tree emblem.

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1 See Williams 1925; 1930:Ch.8.

2 Confirmed by Williams' data collected in 1923 (W.83). Even then not all members of the clan shared a common erahu (see Crocombe and Hogbin 1963:16; Williams, ibid.).

3 Referred to by Williams as hai or hae at Wasida (1925:408; W.12 ff., passim); kerahu and keratu are the usual variants in other dialects.

pawpaws, bananas, sugar-cane and edible pitpit (Saccharum edule). No rotations are practised, but a garden may be gradually extended so that the period between initial planting and final abandonment may be as much as two years; plants such as banana and pawpaw may survive longer.

Taro is liable to be adversely affected by a lack of soil moisture during the dry season, and at this time people resort to sago or breadfruit[1] and foraging.[2] Yams and Xanthosoma are also more important at this time, since the former can be stored for many months in specially erected yam houses and the latter can remain in the ground for some time without deteriorating.

In Sivepe, animal protein does not form a regular or quantitatively significant part of the diet. The principal source is the domestic pig, and birds and small marsupials which are hunted. In Inonda and other areas more low-lying than Sivepe, rivers are larger and contribute considerable quantities of fish to the diet, while hunting for pigs, wallabies and other marsupials and birds is also more profitable than in the more densely settled areas.

Since about 1890, new subsistence crops, including sweet potato, manioc, Xanthosoma, corn, pawpaw, sweet banana, pumpkin and water melon have been introduced. The Mt Lamington people claim that yams and sago also are very recent introductions into their area. The fruits are consumed mainly as refreshments, but the vegetables have become important in the diet. Sweet potatoes need drier soils than taro and they mature in about three months. They, with yams and Xanthosoma, are often planted in special gardens, known as 'sera',[3] as distinct from the ordinary taro gardens, called 'pure'. The sago palm is still uncommon in the Mt Lamington area and not everyone is skilled in the extraction of the flour. Its leaves have, however, displaced those of the bamboo as the principal roofing material.

(ii) Exchange. The most common transactions are the daily exchanges of food between the households in any Orokaiva settlement. This may be unprepared, cultivated or forest produce distributed on return from the gardens or it may be freshly cooked food given at the time of the evening meal. People also frequently share food, drink or tobacco while working together or on a journey. They do not record these exchanges and each household is assumed to be in a long-term equilibrium with the others.

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[1] Breadfruit is common only in the inland areas.

[2] Particularly for edible leaves and shoots, which are known by the same Orokaiva name (ina) as pitpit.

[3] Such gardens are often only roughly cleared and not weeded, thus reducing labour.

Company already operates a trade store with a liquor licence close to the village.

(e) Other household property

The inventory of property held by the eleven households was divided into 'non-traditional property' and 'property derived from the subsistence sector' (see Tables 4:6 and 4:7). These inventories reveal that, among non-traditional goods, the only items held by nine or more households are axes, bush knives, petos (for cutting grass), blankets, towels, suitcases etc., various outer garments, and mirrors. Clay pots, tapa cloths, combs, lime gourds and string bags are the main items of property derived from the subsistence sector. In addition, all households possess sleeping-mats either made locally from pandanus leaves or bought in a store. Although eight of the households possess hurricane lamps, they seldom have kerosene. Many of the tools were obtained during the second world war or distributed by the Administration after the eruption of Mt Lamington so that the people could re-establish their gardens.

Table 4:7

Sivepe: household property derived from the subsistence sector, November 1964

Household no.	1	2	3	5	6	9	10	11	13	14	15
Tools											
Hunting net	-	-	-	1	-	-	-	-	-	1	-
Wooden trough*	-	-	-	-	-	-	-	-	-	-	1
Household											
Clay pot	2	2	-	1	-	3	6	1	2	2	2
Gourd (water)	-	-	-	-	-	-	9	-	-	-	-
Personal											
Sleeping-mat	2	3	1	1	1	2	-	-	-	4	2
Tapa cloth	1	4	2	2	1	-	12	5	4	8	1
Comb	2	2	-	1	-	1	2	1	1	2	2
Bamboo pipe	-	1	-	1	-	-	-	1	-	2	1
Lime gourd	2	2	-	2	-	1	2	1	2	3	4
String bag	3	11	3	4	-	4	6	8	10	5	2
Drum	-	-	-	3	-	-	-	-	1	-	2
Di and hambo**	-	20	10	9	-	5	2	6	9	-	18

* For fermenting coffee.

** Di are ornaments made from feathers and beaks of birds; hambo are shell ornaments. Items made from trade store beads or scrap metal, etc. are excluded.

484 produce could be sold directly to buyers at the village.[1] Nothing
[491] in Table 6:11 suggests that this move is related to the changing
[361] location of gardening activities since the percentage time spent on travelling in connection with clearing activities is actually less than that in connection with subsistence gardening.

Table 6:11

Sivepe: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

[361] [1] Other reasons given for the move included, firstly, that the new
[824] village would be an amalgamation of four existing ones and this
[825] enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

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Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

241
[433]

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

[824]

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

[133]

[417]

During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

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221

[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

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461
[462]
[286]
[285]
[824]
[462]

(ii) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

[342]

The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

[857]

The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof-sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

[1] See pp.235-44.

134 (v) The Avalanche Association consists of riverine deposits of gravel and boulders interbedded with sheets of sand, lying on [191] the floor of the Girua river. It occupies a very small proportion of the Inonda lands, supports a kunai vegetation, and appears to have no potential for either agriculture or forestry.

132 Climate: The climate is hot and moist, except for a hot, relatively dry season which lasts from about July to September. Because of the influence of the Owen Stanley Ranges there is a rapid west-east decline in rainfall over the Orokaiva area. Popondetta has an average annual rainfall of 96 inches so that Inonda, lying 5 miles to the east, probably has a rainfall of 80 to 90 inches. The yearly pattern of rainfall distribution, which is very similar for both Inonda and Popondetta, can be seen from the rainfall recordings for Popondetta given in Appendix C[A](1)

805 The Inonda people refer to the dry season as huvira 824 because the huvira tree (Erythrina indica) flowers at that time. The wet season is divided into a number of periods which are recognized by the ripening of various nuts (especially hauga) and edible pit-pit (ina), and by the flowering of the garepa tree. For instance, the garepa season begins about November or December and lasts for two or three months. These are the wettest months of the year and plant growth is therefore rapid at that time. The pasiro (a variety of pit-pit) ripens about [574] March, which is a time of more moderate rainfall. Food is in abundance at this period, and it is accordingly the most popular season for feasting.

132 The warm moist climate is generally favourable for 241 plant growth, but because many of the soils are coarse in texture and have low water-holding capacity, even short periods of drought may adversely affect the growth of shallow rooting crops (including the staple food, taro). Deep rooting crops such as coffee, cocoa and coconuts are less affected by the dry periods.

(1) This average was computed from recordings taken over the 7 year period 1955-61.

A [See Category 132, p. 100--Analyst]

312 sea breezes, during the dry season (May to August) drive fires across the grasslands against the forest wall.

HOUSING AND VILLAGE LIFE

342 The Yega make three types of buildings each with a separate function; the vernacular names for these buildings are *mando, dobo* and *gaga*. The *mando* is the building where a man and his family normally live. It is a well-built structure about sixteen to twenty feet by twelve to sixteen feet, set on hardwood piles, with the floor about four feet above the ground. The framework is of untrimmed bush poles about four to six inches in diameter, nailed together (the fifty or sixty cents for nails is the only cash expense in building the house). The floor is of split lengths of limbom [824] palm, laid with the convex trunk side uppermost so that there are no splinters. Walls are made of lengths of the two inch thick midrib of sago palm fronds lashed vertically. The lashing usually leaves a space of quarter to half an inch between each pair of strips allowing [824] any cooling breeze to blow through at all times. The roof is thatched with sago-leaf 'tiles'. The house is divided internally into two or three rooms, with a verandah in front. [417] The entrance ladder is frequently the worst constructed part of the house. It is often rickety and dangerous, but even small children and dogs seem to negotiate it without falling. 252 Cooking is usually done in front of the house or, in wet weather, underneath it. Some houses 354 have a mud hearth three feet square and four inches thick, or the top of a forty-four gallon drum covered with two inches of sand, in one of the rooms to serve cooking and heating purposes. Food is cooked in a pot balanced over the fire on three stones or, nowadays, on 352 three empty meat tins. Furniture is simple. There are no tables, chairs, or bedsteads. Sleeping mats are of woven pandanus leaf. There is often a light blanket or two, baskets 353 and bags hang from the ceiling and in every 415 house is a box or suitcase containing the wife's shell jewellery and the husband's ceremonial dancing finery, woven bracelets, feather head dresses, and shell and dog-teeth masks. Another box or suitcase contains the couple's

[P.10-B]

614 not unlikely to meet her request. Her brother's
182 children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled
[842] clan patrimony together. It is therefore tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 The Orokaiva case makes one wonder just
171 what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41)
842 which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories
[813] implying causal connexions. It is notorious
[814] that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *tauga* leaves fall while the main taro crop is coming up and postulate that it is the dropping *tauga* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

241 Food must be planted at most periods of the year as most
221 Orokaiva crops cannot be stored, but there is a difference according to the purpose of the plantings. Seed planted outside the optimal period can be grown for no purpose except subsistence; plantings made in the optimal period may be in preparation for feasts. Their purpose is not only subsistence but also abundance. The Orokaiva calendar contains a specific feasting season which immediately precedes the "planting" season. Taro planted between July and September reaches maturity between April and June. This is the season of feasts and abundance.

241 A distinction must be made between the ideological and the
221 statistical work calendar. The latter has been set out here from
924 data collected by Waddell (n.d.) in Sivepe and shows that at no period agricultural activities are confined to one particular phase of the work, such as planting or weeding or cultivating or harvesting. There are, however, clear fluctuations showing an emphasis on planting during certain periods and on harvesting, etc. during other periods (Table 5).[A] The ideological calendar, as given to me by informants, both in Sivepe and Hohorita, distinguishes seven phases related to the annual cycle of three forest trees. The calendar noted by Crocombe in Inonda (1963: 6) though more summary, follows the same principle, while differing in some minor details.

1. When the garepa flowers, the taro should be ready to harvest. (The reference is, as in this whole calendar, to the main taro harvest.) But this flowering has several phases: the flowers are first white, later yellow, finally bloodred. When some of them are bloodred, the taro is "really" ready. This is the time when small feasts are given for the owner of the land, but not yet big feasts, for it is only the first of the crop that are really ready.
2. When all the garepa flowers are bloodred, feasting time has really started. This is, in the Mount Lamington area, around Easter time.
3. Another sure sign of the approach of the feasting season is the ripening of the tauga nut (called hauga in the Sangara dialect). While garepa is watched during the time of shortage before the main harvest, tauga is watched during the time of plenty. The nuts are plentiful, delicious and rich in first-class protein.
4. At the end of May, about two months after the beginning of the feasting season, white flowers appear on the barambu tree. This is a sign that the seeds should now quickly be planted in the land. The dry period is beginning; the period when clearing and burning can be done with the least loss of fertility. As these flowers appear, feasts will still be in progress in the villages, but the old men will begin to make moralistic speeches that feasting should now be over and people should return to garden work.
5. Soon after this, perhaps a month later, the leaves of the tauga begin to fall; it is good if by that time a good deal of

A [See Cat. 116, pp. 209-210--Analyst]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepa over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepa and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.
[824] Some Orokaiva have been employed by Europeans as carpenters;
these men have certain skills upon which a community draws when large
177 community buildings (for instance, the hospital at Sasembata mission
335 station) need to be constructed. The trained carpenter leads such
enterprises in the role of expert. There was one such man in Sasembata
village; he, like most others of his type, learned his skill in
European employment and not in one of the small adult education
ventures which the administration has sponsored from time to time (the
adult education classes at Ilimo camp were probably the first of this
type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but
rather with an increase of understanding of the world outside. While
before the war, only a small minority had school education, the
Anglican Mission spread its operations to several new stations,
including Sasembata, after the war. After the eruption, the scope of
education was again greatly extended and it could be said that the
eruption marked the beginning of universal school education in the
majority of Orokaiva villages. The Sasembata station began to draw
virtually the entire child population of the surrounding villages,
and most students now follow a five or six year course. While this
development had been planned ever since the war, it may be significant
that regular school attendance of all the villages in the district
was experienced for the first time at Ilimo, where a school was
conducted for the whole evacuee child population, and adult classes
as well. It is the objective of present school programmes, as far
as I can see, to make the population literate and the increase of
[212] literacy is a major aspect of acculturation over the period. Literacy
has certainly progressed to a point where letters written in Orokaiva
to any family in Sivepe can be read and understood with the help of
at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation.
In the Orokaiva language, there are no numerals higher than 2; hence,
it is the invariable practise to use English numerals when speaking
[192] the Orokaiva language. The numerals are, in fact, among the main
English linguistic features that have been borrowed. They are used
with remarkable frequency; the number of coffee trees, the value in
pounds of trade goods included in a bride price, the calculation of
money prices, even the number of brothers or men who together played
some role in a mythological tale (a distinctly contemporary touch,
this)--all these phenomena show that "numbers" have become an integral
part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

[853] The health authorities had successfully campaigned against the Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to mash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

[A] [See Cat. 116, p. 219--Analyst]

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 The rejection of both the cooperative and the competitive relationship
602 applies to fictive *simbo* as well as to the genealogical *simbo*. The sharing of a
608 fruit is a ritual that is sometimes performed between a married couple; for example, when the community has decided to hold a feast. It symbolizes that the partners become one. But a twin fruit is not completely one; from
[824] another viewpoint, it consists of two separable halves. Here, it is again deceptive to speak of "fictive" *simbo*. Rather, it is more accurate to say that consanguinity of a certain type is one attribute of the tenure of a relationship while sharing a twin fruit is another equivalent attribute of tenure.

The basic concern of the *simbo* relationship lies in critical and dangerous enterprises, and inasmuch, it is reasonable to want the company of someone who, if necessary, is willing to die with his *simbo*. The relationship resembles marriage in its total interdependence. The Orokaiva system of classification is able to make a clear distinction between this pattern and the *namei* pattern with its far more stable socio-political setting.

572 (d) *Otavo*. Friendships are more numerous now than in the past when travel was more dangerous. The *otavo* relationship, which may exist between cognates and non-cognates alike, applies primarily to a specific activity in
[431] which pairing is required. Its main starting points were, traditionally, trading and feasting. When a man visited a strange village to trade, say, lime, feathers, areca, or a string bag, *and* if buyer and seller were personally attracted to one another, then an enduring *otavo* relationship might develop.

572 Similarly, feasting occasions between villages often result in *otavo* rela-
574 tions. Partnerships have to be arranged for accommodating guests in host households. Sometimes guest and host families are strangers before the feast, but are paired together at a preliminary meeting. Such a relationship might be ephemeral but it is usual to keep to the same partnerships for the return visit. If the partners are sufficiently attracted to each other, an hereditary friendship will result. In the second generation, if not before, the *apa/eambo* terminology will be used.

[535] The term *otavo* is also used to refer to partners who choose one another specifically for dancing. The partners are of the same sex and they tend to stay together for long periods. They may or may not be consanguines.

572 *Otavo* relations are essentially competitive, both partners vying with one another in trade, prowess in war, hospitality, the dance. They also compete with the rest of the group in that some couples enjoy a higher reputation than others. Feasting partners make a great effort to gather many gifts for one another; competitive giving is, for the most part, on the level of households. Outside the activity, the *otavo* have no obligations toward one another.

In modern times, friendships can have many other starting points: work in a plantation, study in a boarding school, and other activities. Traditional connections were often with villages at the outer edge of the area where intra-group morality applied (in the sense of Williams, 1930), and sometimes a little beyond.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Orokaiva marriage (Schwimmer, 1970) and have shown that sister-exchange marriage, though infrequent, is regarded as the ideal form. Elopement and abduction marriages, once the most frequent, are now frowned upon, though elopement is still prevalent. The patrilateral preference rule (marrying out a girl in her mother's village) is still regularly stated by informants. In my records, which go back to the third generation, I found that 35% of the resident married women had been married out by that rule for the whole three generations, i.e., they had been exchanged for their mothers and their mothers for their grandmothers.

In the study [2] that follows, I shall first present data concerning the coconut and areca, then about the taro. I shall follow this presentation with a brief discussion about the relation between the levels of myth and ritual.

1. COCONUT AND ARECA

A salient characteristic of the ethnobotany of the Orokaiva is the classification of plants as masculine and feminine. Certain important cultivars are grouped together as opposite-sex couples and grown in close association with one another. Claims are made that such plants will not prosper unless they are planted close together and that, in their wild state, they are also found together.

The symbolic association of these pairs of plants may be based on a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, and similarities in culinary use, taste, and supposed physiological effects of the fruit when eaten. Sometimes the pairs of plants are linked in ritual use and in a common myth.

Coconut and areca are planted together in villages as well as gardens. Both nuts are eaten raw between meals; both grow on palms; both are offered to visitors—the coconut as refreshment immediately upon arrival and the areca (along with *hingi* pepper and lime) for chewing during the conversation. At mortuary feasts coconut and areca are the principal gifts, offered in large quantities to guests from villages who helped to bury

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

She warned them to sleep against her back but they would never follow this advice. The girl's brother became concerned and told her he would personally choose her next sleeping partner. He chose his own *dambo,* i.e., his wife's brother. He told his *dambo:* "Because mistakes were made other bachelors have died, but my *dambo,* my true *dambo,* she is going to sleep, she is going to bed. Therefore see that all is properly prepared and that the bed is properly made for sleeping." But this handsome young man also was pierced by the girl's breasts and killed. The brother buried his brother-in-law, then killed his sister and buried her beside the other grave.

After a mourning period the brother took his wife to the two graves. They found a coco palm in full bearing above the sister's grave. An areca palm had grown over the grave of the young man. Heaps of dry nuts were lying on the ground. That is how these two palms originated. He said:

> Wife, as we come close, we see coconut and areca growing where only grass grew before. Dry coconuts have fallen and are rotting away; dry areca nuts are growing shoots. It can be seen from my sister's grave that she was a creature of misfortune [*embavo*] and that the bachelors' deaths were her doing.
>
> The coconuts growing in the grave must stay there and the areca growing on *dambo*'s grave must likewise stay. See to it.

The hero opens a dry coconut, then a budding coconut. Though he declares that he will die if he eats these nuts, his wife desires them; they are so delicious. He feeds them to the dog, expecting it to die, but it does not. He then declares:

> Wife, coco palms are growing in my sister's grave, but the flower clusters on the stem have pointed sheaths [*peperuma*] which puncture the skin and make men die. It is always said that people die when that happens. The mass of sheaths will strike men with the sleep of death; when the sheaths have struck, men will die utterly. That was the cause of the girl's death. When I came here and saw coconut growing out of her grave and dry nuts fallen on the ground, I

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

began to understand that my sister had killed the men I had carried to their graves and buried. . . .

When a man has collected areca, he gives it back to a girl. When that girl has helped to fetch coconut, she in turn gives it to the man. It therefore belongs to the man. This being so, the coconut is a man but the areca a girl: for this reason, girls give areca.

539
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On the level of social structure, this myth is concerned with the Orokaiva institution of sister-exchange marriage. Though such arrangements were not very frequent among the Orokaiva (I would estimate about 5% of all marriages), sister-exchange marriages are strongly idealized as I have shown elsewhere (Schwimmer, 1970). In this myth a man arranges such an exchange marriage for his sister because he evidently believes it provides more protection against magical dangers than any other. When this ends in disaster, the brother feels entitled to assume there is no bachelor with whom his sister can safely sleep, as he explains in a passage not quoted here. He therefore kills her, but right through the story his *dambo* (wife's brother) continues to be regarded as husband of his sister. It is for him, rather than for any other man she has slept with and killed, that she grows coconuts. In fact it is the bond of love between the dead couple which gives the whole tale its meaning. The closeness of this bond is not explained psychologically by personal sentiments existing between the lovers, but structurally, by sister-exchange marriage.

539
824

On the level of social exchange the myth depends largely on rather complex and condensed ideological statements made by the hero. I have translated the crucial passages verbatim. In the full text, the brother comes back four or five times to the miracle that chiefly concerns him: the symbiosis of coconut and areca, dropping their fruits side by side and thus (as he implies rather than states) fertilizing one another. Taking this symbiosis as a fact of nature, the hero uses it to explain several other mysterious facts: (*a*) why all the bachelors died; (*b*) the ritual uses of coconut and areca; (*c*) why the Orokaiva consider the coconut masculine, areca feminine. To answer the first question, he refers to an easily verified fact: the *peperuma* of the coconut

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

do look like a girl's breasts; they are very dangerous if one falls upon them with any force. His sister was clearly an *embavo*, a coconut spirit. In this way the deaths are, to Orokaiva thought, adequately accounted for.

The hero explains two types of ritual uses of coconut and areca, namely, those related to mortuary feasts and those where the sex of the recipient of the nuts is opposite to that of the donor. The instruction that nobody should eat the nuts lying under the trees, on pain of death, constitutes a mythological charter for the taboo placed upon the coco palms and areca palms owned by a person recently dead. An informant explained a further implication to me, which is not very clear from the version I quoted, namely, that it is customary to place coconuts and areca nuts upon the grave of a dead affine. Thus it was the duty of the hero to place coconuts and areca nuts upon the grave of his brother-in-law; and the duty of his wife to do the same for the grave of her sister-in-law. In order to clarify these points, the myth tells of the wife's desire to eat the nuts and the hero's refusal to let her have them.

In a somewhat elliptic manner, the hero lists or implies three sets of rules concerning gifts of coconut and areca, where the sex of the recipient of the nuts is opposite to that of the donor. The sets are:

Areca	*Coconut*
1a. The man fetches the nuts from the tree.	1b. The woman *helps to fetch* the nuts from the tree.
2a. The man gives the nuts to the woman.	2b. The woman cooks the nuts for the man.
3a. The girl offers nuts to her lover and carries an offering of nuts at initiation.	3b. At a girl's initiation, a man prepares coconut oil, which is used as a ritual cosmetic.

The first opposition is made quite explicit in the hero's speech, but is not free from casuistry. Men usually fetch not only areca but also coconuts from the high palms on which they

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

grow. The woman may help by collecting coconuts once they have dropped on the ground and by carrying them home. Very often, however, the coconuts are carried by men, who tie two nuts to a stalk, thus creating a huge effigy of a phallus. The feeble empirical basis of this opposition only serves to emphasize that we are here being taught an ideology which requires the opposition.

The hero's second opposition centers on the culinary use made of the nuts. Areca has no place in the kitchen, in opposition to coconut. The fact that coconut is also often eaten raw would weaken the opposition but is suppressed. The third opposition is in fact the strongest, but it is stated in a rather elliptical manner. We are told that in ritual girls give areca to men, but the opposite statement is omitted, viz., that in the same initiatory context *men* (but never women) pour coconut oil over girls.

In the narrator's mind all these oppositions are probably subordinate to a philosophical question: why the Orokaiva consider coconut masculine, areca feminine. Numerous informants have confirmed this classification in conversations with me. In this story, however, it is not presented as a "fact," but it is deduced in a logical manner. The words used make it clear that we have to do with a logical deduction:

> *Ainge* embo amina ainge ena. Embo amina *ainge eto*, erevi u ra embo erevi u ra; te sa erevi meni kakara ra;—*ainge eto* ikena.

This passage, translated above, contains the notion of logical entailment three times: *because* the girl gives coconut to the man, it *therefore* belongs to the man; *because* coconut belongs to a man, *therefore* coconut is masculine; *because* areca is a girl, girls give areca. The problem, for those who do not know Orokaiva culture, is that every one of the conclusions appears to lack logical force. Furthermore, it will be noticed that, from a formal viewpoint, the narrator's argument proceeds quite differently for men and for girls. This difference also needs explanation.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

539
824

When I heard this tale, I could not help arguing with my informant. I said: If the coconut grew out of the girl's grave and she later gave the coconut to the man, wouldn't it follow then that the coconut is feminine? My informant received this argument with a tinge of pity. It proved to him, if any proof were needed, that white men are indeed quite incapable of abstract reasoning. It took him some time to understand what problem I could possibly be having. Finally he said: "The girl intended these coconuts as gifts for a man; therefore, they must be masculine." At that point I remembered I had heard this argument somewhere before, in Mr. Lévi-Strauss' introduction to Marcel Mauss, *Sociologie et anthropologie* (1950). If we produce something that is *intended to be given away*, it was called into being by a prior relationship between donor and recipient, and could not be utilized by the former without losing its predetermined nature.

We find the same line of thought elsewhere in Orokaiva culture: pigs cannot be eaten by those who reared them because they are, from the beginning, set apart as gift objects. The most striking and intimate instance may be found in a myth of a woman who has a detachable vagina. She pretends to her husband that she has lost it: "I dropped your vagina in the water." The husband looks for it between the stones of the river: "I am looking for my vagina."

In all these cases the gift object partakes of the nature of the recipient. However, the narrator appears to follow a quite different line of reasoning when he says: "Because areca is a girl, girls give areca." There is an apparent contradiction here, which is resolved only when we recognize that two different types of gift must be distinguished—perhaps we can call them "metaphoric" and "metonymic." If we call a coconut a man or a man a coconut, we are using a metaphor. Furthermore, if we proceed to call an areca a girl, we are setting up a metaphoric opposition (coconut/areca) which corresponds to the real opposition (man/woman). When Mr. Sperber speaks of "code structures" (1968:211), he is principally referring to classificatory systems built up from such metaphoric oppositions. When

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

I use the term "metaphoric gift," I mean a gift about which we are told in a story, the message of the story being that gift and the recipient are metaphorically identical. The point of the story is to establish the symbiosis of man and woman by the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bull-roarer, golden apples, mirror, knuckle-bone, tuft of wool) which defined his nature. In the same way, in Orokaiva myth men are given a coconut nature and women, an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognized as a man because the palm germinates slowly and the fruit comes to maturity slowly ("it comes slowly"). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. Areca may be recognized as a girl because it germinates and comes to maturity quickly—the fruit matures faster than the coconut. Likewise, woman is quick to be sexually aroused and to feel desire for a man. In this analogy, the botanical facts are evident but the psychological generalizations describe no more, perhaps, than Orokaiva role expectations.

While metaphoric gifts do no more than mythically explain a code structure, metonymic gifts are those which mediate social relations between partners whose nature was established prior to the gift and whose nature is not changed essentially by the gift. In such a case it may be said that the donor "gives part of himself." Thus a girl, whose nature is that of areca, will give areca, and a man, whose nature is coconut, will give coconut. The metonymic gift is the basis of network structures. If the two partners in social exchange are of a different nature (in respect of the transaction in question), then each will use his own distinctive object of mediation as gift to the other. Girls give areca to men, but men give coconut to girls. (I am speaking now of a ritual, not an everyday context.) The simplest kind of network structure may therefore be represented by the following model:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

539
824

Object of
mediation (1)

Partner (1) Object of exchange (1) Object of exchange (2) Partner (2)

Object of
mediation (2)

In the case under consideration, the two partners are man and woman; the objects of social exchange are male sexuality and female sexuality; and the objects of mediation are coconut and areca. The model shows the basic difference between code structures and network structures. The former consist of logically related binary oppositions, whereas in the latter the two partners are engaged in the somewhat magical pursuit of setting up, maintaining, or restoring social relations with one another. Whereas code structures have to do with symbolic thought, network structures have to do with action. There are a great many types of social relationships which are mediated by coconut and areca. By no means all of these are cross-sexual or between affines. Many are extremely casual. Except in a ritual context, the relationship between these gifts and male or female sexuality is extremely attenuated.

No trace of hierarchy can be found on the level of code structure. The relationship between coconut and areca is one of plant symbiosis. The one plant cannot prosper without the other. This makes each of them infinitely dependent on the other, so that neither can be superior to the other. It should be noted that the symbiosis expressed in the myth and in Orokaiva belief is not an empirical fact. The two plants are not, by strict botanical criteria, interdependent parts of the ecosystem. The man/woman opposition is real; the coconut/areca opposition is metaphorical and the symbiosis is imaginary. When the narrator lists rules concerning coconut and areca gifts, the oppositions between sex roles are feeble indeed. The narrator

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

proceeds as though he wished to prove at all costs the absolute interdependence of husband and wife, the absolute necessity of their symbiosis. So important is this ideological notion of symbiosis that the culture has set up numerous imaginary plant symbioses to emphasize it. There is no time here to analyze several other recorded myths which carry the same message.

We may also say that hierarchy is absent on the level of network structure (in the sense of Sperber, 1968) as there is no problem of allocation and no competitive aspect in obligations relating to the giving of coconut and areca. With the exception of mortuary feasts, the nuts are given away in small quantities, as tokens which are part of ordinary social exchange. If a visitor is given no coconut on his arrival in a village, this is rarely because of any absence of coconuts, but mostly because one does not want the visitor to stay, and this unwillingness has nothing to do with the coconut transaction. If there are really no coconuts, this does not affect the relationship. The same applies to areca.

The manner in which coconut and areca are given to guests confirms and expresses the existing social stratification. The most important guest receives the first coconut. He is also likely to receive a large gift of areca, which he then distributes to his followers. Though Orokaiva society is much less stratified than many other New Guinea societies that have been reported, men differ in influence and only the most influential can hold feasts. The position of the "bigger men," as one may call them, is not validated by any ideology or formally designated position, hereditary or otherwise, as is the case in Polynesia.

2. TARO

The foregoing discussion of coconut and areca has been presented because it provides a particularly clear illustration of the nature of code structures and network structures. I would not, however, classify either the code or the networks arising out of coconut and areca exchanges as hierarchical. If we compare these fruits with taro, the principal staple of the Orokaiva,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

we find that taro resembles them in that taro gifts are ritual statements by which attitudes toward social relations are communicated. We may say, to use Mr. Sperber's terminology again, that in this respect they form a code structure. It will be shown that this code structure is again nonhierarchical, thus resembling coconut and areca. On the other hand, a statistical study of the behavior of exchange partners shows that, on the level of exchange structure, there are rules by which a hierarchy is unconsciously generated between households and between villages. A system which combines a hierarchical network with a nonhierarchical code might be described, in my terms, as political, though incompletely so.

Most taro produced by the Orokaiva (over 90% in the villages surveyed) is consumed directly by the producing household. Nonetheless taro is the most ubiquitous of all Orokaiva objects of exchange; most households give some of it away every day. It is also part of the conventional set of gifts that change hands on virtually every ceremonial occasion. The main purpose of such gifts is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. The ritual statements that may be made by means of taro gifts fall into two categories: raw taro, ritually given by men, tends to be part of a ceremony aimed at the establishment or restoration of social relations, whereas gifts of cooked taro, normally made by women, are part of the process of maintaining social relations of a certain degree of intimacy.

I shall base the following abbreviated analysis of taro symbolism on one myth. Of the several versions collected, I shall quote the fullest one, indicating variants where relevant. The name of the principal hero is usually given as Totoima, though this name does not appear in the version quoted. Williams has some references to the Totoima myth (see 1930:155, 158–159, 276), but these are not very illuminating. The following version was obtained from Samuel Jovareka, born at Kiorota and now a resident of Sivepe village:

> A husband slept with his wife. She became pregnant and gave birth to a small child. The husband came and asked:

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

"Woman, where does the boy come from?" "I have just given birth to him." "Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat."

The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child, which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding place, where she covered them with a heap of weeds [*bivese*] by the root of a tree.

On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, the husband said: "Wife, what did you do with my child that was in your belly?" "Husband, I threw my child into the water because it was bad," she replied. "I am going to collect cabbage."

Having said this, she climbed a cabbage tree. As she looked down and saw the place where she had put her children, she began to weep. When she returned to the ground, her husband said, "Wife, why did I see you cry when you climbed to collect cabbage?" "When I went to collect the cabbage, the sap squirted into my eyes and I rubbed them," she said. "You are lying," he said.

When the children were fully grown, she took them to the mountain far away. She told them their history; "therefore, I must leave you behind and you must stay," she said. When she joined her husband again, he asked: "Why did you stay away so long?" "As soon as I had done my work and planted my seed [*bere kovitie*], I started on my way home," she said. "Woman, you are telling lies," he replied. When the man understood what his wife had been saying, he went away.

The two children, all by themselves, made a garden, ate their food and kept alive. The man went to where the two children were staying. The female sibling had gone to collect taro while the male sibling was lying asleep with his chest turned upwards in the shelter. It was there that the man found him, recognized him at once as his child and cut out his heart and intestines. He ate these, leaving the rest of the body behind for the next day.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

The story tells in more detail than is relevant here how the sister learned what had happened, how a magician from the neighboring mountain district of Managalase brought the brother back to life by giving him the heart and intestines of a wallaby, how this man married his sister and how the young man killed his father when the latter returned to complete his meal. He cut the father into many pieces, which were shared out among men whose descendants became the various language groups of the northern district, and multiplied exceedingly.

The informant who told me the myth suggested that its subject was the origin of taro cultivation. The whole text is deliberately ambiguous. When we are told of the woman giving birth to a child, we must think simultaneously of her harvesting a taro—and we must remember that among the Orokaiva only women are considered *capable* of harvesting taro. When the woman is told to cut the child's head off, the narrator is thinking simultaneously of harvested taro, which is considered to be still alive until the top is severed from the rhizome. Again, the woman's method of concealing her children is modeled on the treatment given to taro shoots (*bere*) when they are planted. The word *bivese*, in particular, denoting the heap of weeds with which the children are covered, is a gardening term.

[243]
[462]

The apparent lies used by the woman to hide her activities from her husband are truths if her statements are taken symbolically. For instance, the reference to "throwing the child into the water" calls to mind that the origin of taro in many myths is linked to the water and that the rainy season is metaphorically linked to the fostering of a child in the womb.

The true nature of Totoima, though familiar to every Orokaiva, is not explicitly set out in the myth presented here. In other tales he has tusks which he wears when he kills people, but which he lays aside when he goes to sleep. He is killed by his son after his tusks have been removed from his bed. I shall return to this theme in a later section of this essay. Meanwhile, we note that in attacking his son, lying in the *gaga*, Totoima behaves in the manner of a wild pig while his son behaves like harvested taro. Totoima has partly a pig nature, partly a human nature, and these aspects are only partly differentiated. His son,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

by killing him, sets up a boundary between pig nature and human nature which thenceforth remains rigidly fixed. What concerns me is the link, in the present myth, between this theme and the origin of taro cultivation. 824 539

The myth appears to be built up out of three sets of oppositions. One is the dual nature of Totoima, already discussed. The second is the dual nature of his wife, or of woman, who nurtures Totoima and also conspires to kill him. This second aspect is also found in numerous myths concerning Totoima. In the present version not only the wife but also the daughter is involved in conspiracy. The taro are her children, and it is right that Totoima should eat them. She feeds them to him. However, she places restrictions on Totoima's appetite. This is an essential part of any myth concerning the domestication of plants. The *bere* of the taro, the cuttings, or more strictly, the corm-bearing bases of the petioles of the taro plants, must be preserved for the next harvest. It is the woman's duty to withhold these from her husband and to manage the taro field so that the supply of *bere* is always assured from year to year. It is for her to see that her husband behaves like a "domesticated" human being. This is notoriously difficult for the male even today. In that sense, Totoima may be said to be reborn with every generation. Woman's two aspects—nurture and domestication—are crucial in the ritual statements that are made through gifts of taro.

The third opposition, to which I have just referred, is between the taro garden—the patch of land that is cultivated and domesticated—and the bush where the wild pigs, the ghosts, and the enemies are. This is at the same time, essentially, the opposition between the male and female spheres of life. Man, the hunter and fighter, is primarily concerned with the world outside the garden. To woman, this is an excessively dangerous world, and the sphere of the village and garden must constantly be protected from its influence. The symbiosis between man and woman is based upon gifts of products obtained by each sex in one sphere of life and indispensable in the other. Thus the garden products are indispensable to the life of the male. Conversely, the meat killed by the male is indispensable to the

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

female. I have collected a number of myths concerning the origin of marriage, where that institution is created by the male hero's act of bringing meat home for sharing with his wife instead of eating it in the bush, as was customary before marriage existed. It is also the male on whom the female depends for clearing the ground and making a garden, and for clearing a village site and building houses.

If female nature, in its pure state, is found in the taro garden and male nature, in its pure state, is found in the jungle, then it follows that human beings, being born of a man and a woman, have a mixed nature. One may say of Totoima that in him this dual nature is imperfectly developed; that he behaves toward taro in the manner of a cannibal. Similarly it is at first imperfectly developed in his son, who does not hunt and has purely a taro nature. He is therefore easily defeated by Totoima. It is only when the man from Managalase has replaced the son's taro innards with animal entrails that the latter has the power to defeat his father. He is then superior to his father because he has a fully human nature which is symbolized by his manner of killing, namely, with a club rather than the teeth (as Totoima did).

The second type of ritual statement is made by men giving raw taro, complete with tops, to other men, usually in the context of a feast. Although such gifts are confined to varieties classified as "feasting taro" (*pondo ba*), most tubers actually grown in the villages I studied fall in this category. This second type of ritual statement can be understood only once we have explained why in most Orokaiva taro myths there is not a single originating hero, but two, namely, a pair of siblings of opposite sex. In the myths which have a single hero, that hero is invariably a woman. In chants sung in homage to the taro divinity, this deity is always called Bako Jape (grandmother taro); taro, for the Orokaiva, is symbolically equal to "our mother," as they often say. The presence of the male sibling therefore certainly needs explanation.

To this puzzle I shall add another, which is posed by a detail of the text of the myth as quoted here. It will be noted that in the beginning of the myth the twins born to the taro

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

824
539

woman are both male whereas at the end they are described as siblings of different sex. Did the informant err in the opening sentences? It is possible but, in the case of Samuel Jovareka, not at all likely. This second puzzle seems a very trivial one, but we shall find that, if we know why the sex of the taro in the narrative changed, we shall also know why there are two taro ancestors in the myth, and why these are siblings of opposite sex.

The myth takes us through *two* complete taro cultivation cycles, not just one. We are told of the planting of taro in the water, covered over with weeds to protect them from the sun, the gradual growth of the plants under the woman's care, the shifting of *bere* (developed in the taro) to a *new* garden "established at some distance from the old one, as is customary," and finally the growing of these *bere* to maturity. I was given no explanation of this duplication, but would ascribe it to the punctiliousness with which the Orokaiva regard the domestication process, a characteristic which I shall discuss in more detail in connection with pigs. The myth starts with the finding of wild taro and the transplanting of that taro to a clearing. But it is only the *bere* that have been *grown* in that clearing that can be described as truly domesticated taro.

The effect of this domestication process on the disposal of taro was that in the beginning, when the woman simply found taro and then cooked it, *all* taro harvested by the woman was a gift to the man. Therefore, if we follow the same kind of reasoning as we learned from the coconut and areca myth, all taro harvested by the woman was of male gender. We may say equally well that Totoima ate all taro whether it was male (i.e., intended for him) or female (i.e., not intended for him under conditions of domestication). At the end of the myth, however, a differentiation has been effected between the male taro, which lies in the shelter ready for consumption, and the female taro, which has gone elsewhere, presumably to a new garden. The taro is female at all stages of its development but male at the point where it becomes available for giving away.

There are now two ways in which this product may be disposed of. It may be given away by a woman in cooked form or

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

it may be given away, complete with tops, by a man to other men. We here see the same contrast which we met before between a metaphoric and a metonymic gift. The feminine gift, in this case, is metaphoric: she gives her own essence, which is taro, to the man. In return she receives meat, the man's essence; but we come to this later. The male gift of taro, raw and complete, is metonymic: he gives some part of his taro nature, conferred upon him by woman, to another man with whom he desires to establish or restore social relations.

The significance of taro, as part of the nature of the human male, is clarified in the myth by the opposition between the male twin and the man from Managalase. The Managalase is a neighboring mountain district where the main crop is yam, not taro, but where a variety of taro (called *pijama*) is also grown. It is not, however, grown in gardens but in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son: unlike Totoima, he recognizes the technology of domestication of taro, but he recognizes it inadequately, being mainly a hunter. Such, at least, is the view expressed in Orokaiva stories about the Managalase.

Taro, to the Orokaiva, is symbolic of strength; it is preferred to other staples because it builds stronger men, so it is believed. Taro is, moreover, the principal bulk gift displayed at feasts. Certainly, pigs are always given away at feasts, but in small quantities, and the size of the feasts is not principally measured by the amount of pig meat given away. It is by the quantity of taro that changes hands that the size of an Orokaiva feast is measured. A pole is placed in the center of the heap and measured. When taro is received at a return feast, the recipients take it back to their own village and lay it against the same pole. If the quantity is smaller, the other side has lost the competition. The strength of a village is measured by the amount of taro it can produce. The strength of a fighter or hunter is derived not so much from the amount of game he has previously killed; it is derived from the taro he has eaten. It is in this sense that taro, when consumed by man, is stronger than pig, though in the absence of this metabolism, pigs are stronger than taro.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

Finally, it is significant that in the fighting between Orokaiva and Managalase, the former were most often the aggressors and the latter were the victims of cannibal raids, of inroads on their hunting territory, and so forth. Thus the Orokaiva regard themselves as stronger than the Managalase (certainly they are more numerous, as their fertile land can support a denser population) and the Orokaiva explain their greater strength by the abundance of their taro supplies.

While it is clear enough that there are no hierarchical implications in female taro gifts (they symbolize the symbiosis between the sexes), a kind of hierarchical ordering is apparent with regard to male taro gifts, inasmuch as the myth is concerned with a conflict between adjacent generations, where the father seeks to kill and is killed by the son.

It seems to me, however, that hierarchical ordering of this kind does not fall within Mr. Dumont's definition (1966:92), namely, that hierarchy is "un principe de gradation des éléments d'un ensemble par référence à l'ensemble."[2] This seems to exclude hierarchical ordering within a family, or corporate group, on the mere basis of age and generation. It does not altogether exclude the kind of stratification suggested in the myth as between hunters and gatherers (lowest tier), hunters and bush-clearing cultivators (middle tier), and garden cultivators (highest tier). Within the framework of Orokaiva society this is not a hierarchical relation between population groups but an evolutionary sequence with little reference to actual social relations. When the Orokaiva postulate some superiority over Managalase, this is no more than tribal rhetoric on their part. Nonetheless, on the level of rhetoric, we find hierarchical ordering of tribes according to their cultivation practices.

Taro, moreover, gives rise to hierarchy on the level of network structures. Taro has a special position in the Orokaiva exchange system in that it symbolizes commensality. Though, in terms of the myth, it is only a gift made by a woman to her husband, in practice cooked taro is given also to those households which a woman wishes to honor with a kind of pseudo-commensality. The taro is taken to the home of the recipient,

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

either by the housewife who has cooked it or by one of her children. The quantity is usually about two kilograms, which constitutes a very hearty meal for one person. Thus taro gifts become, for the anthropologist, an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges invariably follow. The same cannot be said for any other object of mediation, not even pig meat (which is exchanged only in specific circumstances) or coconut and areca (which may be given to very casual acquaintances). The exchange network of cooked taro therefore coincides with the network of intimate association.

I have made a somewhat detailed, statistically oriented study of taro-exchange networks which, for lack of time, cannot be reported here. During twenty-eight days, between 31 January and 10 March 1967, I recorded taro gifts made by all households of Sivepe village. The number of gifts made and received averaged 2.5 daily per household, ranging from a minimum average of 1.3 to a maximum average of 4.1. At the same time notes were kept of social relations between the households involved: work relations, common journeys, different types of visits between households, conversational groups in various parts of the village. The social interaction records were compared with statistics showing the households to which each household had given taro during the period, and the frequency of those gifts. There was a close correspondence between frequency of taro gifts and intimacy of social relations. There were also a set of types of formal occasions when such gifts were thought especially appropriate, e.g., when the recipient household was entertaining outsiders, had a new baby, a death, had performed some specific service; or if the recipient was old, incapacitated, ill. Nobody made taro gifts to everyone in the village: in the twenty-eight days for which I kept tally, the number of such partnerships varied from three to fourteen out of twenty-two households surveyed, with an average of 8.5.

The taro-exchange partners were always the persons on whom one was most dependent in sentiment, in economic tasks, in political support. They would tend to take one's side in intravillage disputes. Taro gifts thus were a ritual statement in

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

which one household would express its desire for close association with another. I inquired to what extent the gifts were balanced. I found, as Sahlins already suggested in 1965, that little importance is attached to precise balance in food gifts. In more than half the households the total imbalance exceeded the proportion 60:40. On the other hand, I also found that extreme imbalance usually has a special explanation, often old age, or special burdens which might be only temporary. Informants, when asked, deny there is any obligation to make return gifts. Yet the statistics show a strong tendency toward the sending of taro gifts on the same day or the day after one has received them. The recipient will explain that he is under no obligation but likes to reciprocate.

Certainly this attitude is in accordance with the explanation I have given of this custom. The return gift should not be considered principally as an obligation but as a ritual statement reciprocating the desire to maintain a close association. Here the question of the frequency of the gifts is closely connected with the question of how intimate each side wants the association to be. An increase in the frequency of the gifts means a desire for a more intimate association. If the recipient wishes to keep the association within certain limits, he may be slow in making a return gift. Unbalanced exchange occurred, for instance, with migrants from a neighboring village (Garombi) who gave more than they received and seemed to be constantly trying to build up new alliances. They were welcomed more warmly by some old residents than by others. If recipients, though fully capable of making equally frequent return gifts, reciprocate halfheartedly, the donor household tends to reduce the gifts to the level acceptable to its partner.

There are, therefore, limits which households set for the extensiveness of their taro-exchange network. These limits are determined less by economic considerations than by sociopolitical ones. There is a limit to the number of intimate social relationships that any individual can maintain. A choice exists, within any culture, between allocating relatively little time to a relatively large number of associates or maintaining a small number of privileged associates with whom contact is very fre-

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

quent indeed, while spending relatively less time with the rest. Inevitably a gradation of associations thus develops. This gradation of associations, among the Orokaiva, is expressed by the ritual statement of taro gifts, made with varying frequency. We thus find that the first (i.e., most frequent) partner is involved in an average of 38% of all taro transactions, the second partner in 24%, the third partner in 12%. The first and second partners are in a clearly privileged position.

A second way of describing the pattern of intimacy would be to assume that there is some community norm whereby a certain degree of intimacy is expressed by a specific frequency of gifts. My impression, supported by the statistical facts and some generalizations offered by informants, is that each household has a few preferential partners to whom they give or from whom they receive taro at least twice a week, but often far more frequently. In this sense every household in my sample has at least two preferential partnerships. Nine out of twenty-two had a third, two had a fourth, while the leader of the Seho clan had five.

Topographically it is a general rule that neighboring households form preferential partnerships. As the two clans live in rows on opposite sides of the village, linkages across the village square (*araha*) were thus comparatively sparser than linkages on each side, though some interclan linkages were effected through the households living along the short ends of the quadrangle, these being only weakly linked to either clan but, in a social sense, intermediate between the two.

Two types of hierarchical ordering should be distinguished in this model. The first is the ordering within each clan, where some people are intimate with the sociometric star whereas others are connected with him through being intimate with an intimate. The second type of ordering is close to what graph theorists call a Hamilton circuit (Harari and Ross, 1954; Flament, 1968) and would be consistent with an almost total absence of stratification. For the purpose of a particular transaction with someone outside or inside the village, one often needs the cooperation of a person with whom one is not intimate. This fact is expressed in the model by the size of the total circle and

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the need for several intermediary links to pass from one point to some other points. 824 571 431

The Orokaiva are wary of relations with persons with whom they are not intimate. They do not like to make even simple requests of such persons but prefer to make the request through intermediaries who are intimate with both sides. In that case it is possible, if the request cannot be met, for both sides to pretend that it was never made. No hard words are spoken, nobody is overtly humiliated. There is a customary blank, expressionless style which is used by intermediaries for the transmitting of requests—symbolic gestures of neutrality. The mediator avoids the risk of endangering his own alliance while still making what effort he can to satisfy the party seeking the benefit. If he is successful, the beneficiary is to some extent indebted to him.

This tendency to work through intimates sets up hierarchies in which almost anyone may at some time or other be the star figure. The total network available to an individual through such hierarchies is rather large, as the twenty-two households in my sample, for instance, have easy access to a total of seventy-five villages. Under the ecological conditions of the Orokaiva, no principle of kinship solidarity alone would provide a network of that size.

The basic ritual statement by which the presence of such intimate links is demonstrated is the feminine taro gift. Cooked taro, therefore, mediates not only the exchange of intimate attachment, but also the exchange of access to *alter*'s private network of alliances. The hierarchy of the taro network is based on the intimacy existing between any two consecutive links in the chain. The structure is hierarchical in that at the one end there is a household requiring a benefit, at the other end there is a person able to give that benefit, while the intermediate links are all necessary for the access to that person.

These hierarchies are more complex structures than those arising in the coconut-areca network. The system not only has the "circuit pattern" described above but also is capable of generating at all times new hierarchies linking persons who were not previously linked at all. Whereas the coconut-areca network

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

corresponded to restricted exchange, the taro network corresponds to a complex system of generalized exchange. We find both these types of pattern in the Orokaiva marriage system; we find them again in the exchange of objects other than women.

To a large extent, these hierarchies are formed by free choice. Both sides are able to regulate the degree of intimacy by speeding up or slowing down the rate of taro gifts. While thus the taro network offers a good deal of opportunity for subtle *political* manipulation, one crucial criterion is missing from the taro network that is required in a political *system:* conflict is never expressed in terms of taro, except in one case, to which I shall refer below. The fact of not receiving a gift of cooked taro is never, by itself, a *casus belli,* but only a sign of coolness. It may signify no more than a development in a relationship from intimacy to mere amity. It is unlikely to cause anger, unless there are other sources of conflict at the same time.

Male taro gifts, occurring in the context of a feast, should according to the rules not be competitive in quantity. A visiting village expects to receive in return no more and no less than what it has given. If the other side gives more than it has received, this is regarded as an act of hostility. One cannot compare such an act to the potlatch behavior of the Indians or Polynesians, because it is a violation of the Orokaiva rules—a provocation that frequently ends in actual war. On the level of ideology, it is still valid to say that taro gifts can be used, as ritual statements, only to express pseudo-commensality, intimacy, and affection. A quite different rule says that any excessive return gift (whether of taro or something else) serves to express hostility. I shall return to this point elsewhere (Schwimmer, 1974).

CONCLUSION

The purpose of this essay will have been achieved if I have been able to show how objects, in such societies as the Orokaiva one, are "total phenomena," or, perhaps more accurately, multivalent phenomena. Certainly one understands little of the Orokaiva way of life if one does not perceive that a taro, for

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

instance, is not just a food, or an economic value, but also a kinsman, also a form of power, also a sacrament.

In a more theoretical vein, we may regard this essay as a corroboration of two remarkable essays by Marshall Sahlins (1968, 1970) in which he elucidated the philosophy of Marcel Mauss and the Maori concept of *hau*. With some modifications, required to fit Orokaiva rather than Maori thought, we can say that a gift object such as a taro has a certain potency which enables it to perform an otherwise impossible act, such as convert an enemy into a friend. During the first stage of the transaction, when the taro, identified with the *vegetable* form of Totoima, is offered up to the marauder (= enemy, guest), the host, likewise identified with the taro, parts with it irrevocably. It is then snatched by the guest, who eats it and thus enters into communion with the host, now identified with Totoima. The force that compels the making of a return gift becomes effective by the act of communion. As Sahlins rightly argued, the transaction becomes meaningful only if it is considered within the context of the state of war which, in the absence of this sacrament, would prevail between the partners.

A question of some difficulty is the relation between the Totoima myth and the taro, coconut and areca rituals. I have proceeded in this essay without distinguishing what is conventionally known as mythology from what is conventionally known as ritual. Thus a key element in the *mythological* analysis was the fact that there are ritual ways of giving away raw and cooked taro. In this respect I followed a distinction which was recently (1971:598) proposed by Lévi-Strauss, namely, between "explicit" and "implicit" mythology. He argues that many mythical representations exist only in the state of notes, sketches, or fragments scattered in glosses and exegeses which appear in the context of ritual. He describes such representations, in other words, the cognitive aspect of ritual, as "implicit mythology."

Lévi-Strauss would thus restrict rather narrowly the scope of the ritual level to what would appear to be systems of paralinguistic signs in a sacred (or at least the opposite of everyday) context. By imposing this restriction, Lévi-Strauss pointed at a weakness in much writing about ritual (including the present

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

NOTES

1. The classic works on the Orokaiva are Williams (1928, 1930). Useful studies in Orokaiva swidden agriculture are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

2. Most of the present study was done in Paris in 1970 and distributed in mimeographed form by the Laboratoire d'Anthropologie Sociale under the title "The Ideology of Exchange." I should like to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

3. "A principle of gradation by which elements are related to the whole of which they form part."

4. Professor Lévi-Strauss suggested to me a most interesting relationship between this myth and the Polynesian Maui cycle. Maui was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gatha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

taro ancestress is usually described as discovering the taro in a lake or other 'round water'. The demigod Totima comes closest to providing a general model of the primeval world of the swidden agriculturist and pig-raiser. Like Prometheus he is a sacrificial figure.[16]

Totoima was at the origin of the feasting institution (though there are other myths of the origin of feasting). It is here that questions of moral values mostly arise as feasting (*ergo* peace making) is the moral act *par excellence*. A direct connection is laid between the virtue of settling conflict and of feasting on the one hand and the fertility and yield of the garden on the other, as enemies are thought to ensorcell the gardens. Another important factor was the 'care' (*simbari*) (a general term covering magical as well as technical aspects) taken of the garden. The eldest male of the extended family, as father of the land, had a special duty as regards *simbari*. Garden magic was, however, made by all married males; they also made gifts to ancestors, who were thought to live in gardens and be reborn from there.

The model of the virtuous man was he who shared out his produce and made feasts (*hande embo*). Such a man would grow a surplus of food in a feasting garden. His power (*ivo*) would be manifest in the abundance of his pigs and taro. The model of the 'active man' would be the organizer of feasts in which the whole village participated (*kiti jigari embo*). Subordinate to him, but still high in reputation, would be experts at sorcery, healing, feather decoration and various forms of hunting, as well as those excelling in debate, rhetoric and diplomacy (*keari embo*).[17]

Identification occurred not only with crops, gods and ancestors, but also with trees harbouring local spirits, plant emblems harbouring lineage ancestors, animal guardians and plant doubles which were kept in the garden (usually surrounded by medicinal herbs) and contained the owner's life spirit, or perhaps name-spirit for the man bore the plant's name. A more complex aspect of identification with pigs and feast gardens is that such produce is destined to be given away, i.e. the owner expects to lose control over it; yet the donor remains identified with it and it calls for a return.[18] The same is true for the range of manufactures (clothes, pots, ornaments) that change hands at feasts.

The pattern described here is characteristic of what Sahlins (1974) called the domestic mode of production. Such a system produces, in his opinion, nothing but use values, even if they are 'exchanged' at feasts, for such 'exchange' is symbolically equivalent to a temporary extension of commensality. Slightly more complex

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

the latter. Also, migrants normally leave behind a family member with the task of looking after the land (*simbari*) in a technical, magical and juridical sense. Often he also leaves behind a wife for whom he is saving brideprice but who meanwhile must be looked after by his relatives. Money sent home therefore covers not only feasting contributions but also the function of *simbari*. This is not because village people would not perform such services free of charge but because, when a man earns money, those who help him earn that money are entitled to their share.

If we look only at the relations of production migrants have in their jobs, they seem totally 'alienated' (cf. Parkin, this volume). Not only have they no control whatever over the product of their labour but this product lies entirely outside their conceptual universe. Yet these migrants avoid proletarianization in the full sense because they continue to have a stake in the village environment, which has its own economic, political and ideological base.

Our remarks above apply similarly to the village cash-crop sector. With the exception of coconuts, the use value Orokaiva see in European cash-crops is either very limited or non-existent. Coffee and cocoa are classified as non-foods, rubber latex as an unusable substance. Even the coconut, though an important food when fresh, represents no use value to Orokaiva when dried into copra.

This lack of perceived utility has not stopped cultivation of these crops on village land nor their processing by village-purchased machinery. Everyone irrespective of age is growing coffee. Those who are pressed for time tend to give priority to coffee and to partially replace their plantings of taro with 'German taro' – less valued but less laborious.[31]

Growing coffee is not considered pleasurable like growing taro. When suggesting to an informant that coffee trees have a sweet smell, I was firmly told: "*We* think the smell is dreadful". Such feelings go to show that the division between the spheres of use value and exchange value is not purely analytical but corresponds to a conceptual boundary between two models of life and work, and that Orokaiva try to keep this boundary clear. Coffee is grown because it takes far less time than it would to grow subsistence crops for the market, but the grower feels alienated from it while he feels identified with the subsistence crops. A small quantity of subsistence crops – surplus to requirements – is in fact sold in local markets for consumption by local people, but growers take the same care with them and regard them in the same way as the food they eat.

It is paradoxical that the work represented as introduced by Jesus

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

121 tasks but also travel, rest, meals and miscellaneous "other tasks" – the most mentionable of which are cooking and washing. The phrase "dépense d'énergie" must thus be taken very broadly.

5. The present author's knowledge of Greek antiquity is at undergraduate level. From an anthropological viewpoint, an interesting general discussion of Hesiod will be found in Jaeger (1946). But see also Vernant (1965: 19–47) and Detienne and Vernant (1974: 59–124).
6. The translation of ΔΙΚΗ as 'justice' obscures an interesting difference made in Greek between two kinds of justice. *Themis* (ΘΕΜΙΣ) justice as dispensed by the early kinds and nobles whereas ΔΙΚΗ appears to be a system of dispute settlement by compensation payments to the injured party. The fundamental meaning of ΔΙΚΗ is 'due share' (Jaeger 1946: 103). ΥΒΡΙΣ would then be to refuse compensation and seek justice by force.
7. Vernant's explanation (p. 222) of this classification is as follows: "Dans la perspective de la valeur d'usage, le produit n'est pas vu en fonction du travail humain qui l'a créé, comme travail cristallisé; c'est au contraire le travail qui est vu en fonction du produit, comme propre à satisfaire tel besoin de l'usager . . . Marx écrit, de façon frappante, qu'en qualité de valeur d'échange, la marchandise n'est plus envisagée au point de vue du service qu'elle rend mais du service qui lui a été rendu par cela qu'elle a été produite." (*Critique de l'Economie politique*, p. 32.)

121 8. It has been objected that a work of art differs from a taro in that the former is a statement about patterns in the universe while the latter is 461 not. My own view of taros, however, is that in the sense of Hjelmslev, 824 they ought to be regarded as sign as well as substance; as signs, which they are whenever handled ritually, they do contain statements about the universe. On the semiotic issues involved see Hjelmslev (1953), Schwimmer (1977a, 1977b).

114 9. For relevant ethnographic data on Orokaiva, see Williams (1928, 1930); Waddell and Krinks (1968); Schwimmer (1967, 1969, 1973, 1974a, 1979a). For specifically semiotic investigations on Orokaiva, see Schwimmer (1974b, 1977a, 1979a, 1979b.)

121 10. Searle-Chatterjee demonstrates that group identity among the polluted caste groups remains firm and positive. It appears to be threatened only by the attempted suppression of the notion of caste by the central government. If this should ever succeed, caste identity would be threatened, because public belief in its toughness, hotbloodedness, honour etc. would be lost.

11. While I have learnt a good deal from Parry's fascinating analysis of the Mahabrahmans, I wish to dissociate myself from Parry's comments on Louis Dumont, as it would not be very difficult to reconcile Parry's findings with Dumont's theory.
12. I wish to acknowledge a debt to Mr. Edwin Ardener who suggested this argument to me during conversation at the York conference. He is not responsible, of course, for what I did with it. A rather similar point is made by Dumont (1977: 118, 182).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

231 but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 235 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely [177] indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

231 A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to [744] improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males [325] were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

241 *Horticulture*. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of [242] mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are [132] important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure.* Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

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CHAPTER VII

PIGS

1. *Introduction*

While taro exchanges serve to maintain the basic social network used in transactions, the pig is the most common object of mediation in critical situations. Unlike taro, pig is not consumed as part of the ordinary diet, but is commonly described as a 'feasting food'. As feasts are held only to mark a crisis in social relations, it will be our task to investigate what makes pig meat specially suitable as a feasting food. One may, at the outset, answer this question with a remark about the physiological properties of pig meat: as the Orokaiva diet normally includes little first-class protein, any meal at which meat is served may be expected to have a specially invigorating and exhilarating effect. But in the present inquiry it does not suffice to give physiological explanations: our problem is to discover how the exhilarating experience of eating meat becomes symbolic and how it is magically utilised in the managing of social crises.

Pig meat is used both for the restoration of good relations after a quarrel or estrangement and for the establishment of new social relations. As such it serves a function in widening the social network. This function is hinted at in the basic pig myth about Totoima to which reference has been made earlier. When Totoima was killed, the joints cut from his body were distributed far and wide and caused all those groups who shared in it to multiply rapidly. This sharing may thus be regarded as a kind of communion which implies both social relations and the conferment of a blessing. Both these themes are strongly present in all ceremonies where pig meat is shared.

But there is a second theme as well: there is in every gift of pig meat the notion of a reparation, either for past services rendered or for past injuries suffered, even though these injuries on some occasions may amount to no more than the lapsing of social contact. The Totoima of the myth, of course, was guilty of many murders and his death was an occasion for dispelling many grievances. Thus the gift of pig meat implies not only a communion but also an expiation.

In treating pig as an object of mediation in exchange, I shall need to demonstrate specifically that in certain respects a gift of pig resembles a sacrifice. It must be shown that the offerer identifies with the pig that is given away or sacrificed, and that there is a belief in the 'virtue' or magical power of the sacrifice both in establishing a social link between sacrificer and human beneficiary and in strengthening the spiritual state of the sacrificer himself.

The data show that pig sacrifices may be regarded equally well as rites of communion and as rites of expiation. The key to their significance, however,

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

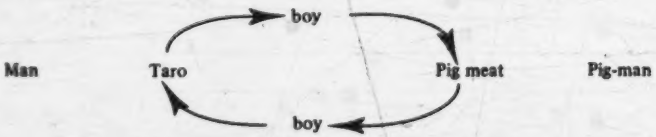
S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

773
539
825

A man and a pig (apparently a pig in form but really a man) were up a tree together after fruit . . . the man gave the pig a push and he fell down . . . helpless. Another man came along with a dog . . . the Man-pig cried, 'Hold your dog or he may bite me.' He then asked this new man to build him a house . . . this done he asked for food . . . and an arrangement was reached by which this man always sent taro, etc. from the village to the Pig-man's house . . . and in return received a brought real pig. But the man grew lazy, and once sent his son with the taro. This so annoyed the pig that he tried to kill the boy . . . but he made his escape back to the village . . . After this the Pig-man thought the villagers would want to kill him . . . so he took to the bush (Notebooks 1923, W. 56).

This myth is concerned with the question why man and pig are differentiated species with separate assigned domains.[2] The pig-man of the myth (like Totoima discussed in an earlier chapter) is clearly neither fully man nor fully pig, but has an intermediate position. The assumption appears to be that in primeval time the present discontinuity between the species man and pig did not yet exist. The myth describes how this discontinuity came about and distinguishes two stages. At the outset there was no differentiation at all, a state symbolised in the myth by the image of pigs being able to climb trees. But even then they were less capable of arboreal life than man; man pushed the pig from the tree, thus inaugurating the first state of differentiation. An exchange relationship was now established whereby each partner offered the other the products of his own capacities. But there was an asymmetry in this relationship, as man offered a house and taro, whereas pig was able to offer only his own offspring. This state of equilibrium may be expressed by the following diagram:

MODEL 21



Except for the friendly intervention of the boy, this diagram represents the pattern of exchange that persists to the present day, as wild pigs take man's taro and man takes the pigs from the bush. But man defaulted in this exchange, omitting to send taro. Man thus set in motion the usual process of breaking a relationship. He sent the boy but the response of his neglect was not pig meat; it was anger and an attempt to kill the boy. The boy now ceased to visit pig-man: the social relationship between man and pig-man ceased and thus pig-man, bereft of social relationship, ceased to be 'man' at all but became fully pig. From that time on pig (no longer pig-man) kept to the bush and the exchange between man and pig was no longer friendly but hostile. Pig still takes man's taro but it is no longer given to him; he steals it from the gardens. Similarly, man still takes pigs, but he hunts for them in the bush.

[772] The separation of man and pig leads immediately to the division of the world

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

into two separate realms: the human world, comprising villages and gardens, and the wild world, *ariri*, the bush, where everything is dangerous and inimical to man, and where the ghosts (*sovai*) have their abode. The area friendly to man is thus reduced to a small space, whereas the area hostile to man is an infinite expanse. Thus man is forever at strife with all but a small circumscribed portion of the universe. The myth of pig-man restates in another idiom the message of the primal theft of the piece of string.

3. *Domestication of Pigs: Husbandry*

Separate though the worlds of bush and human habitation may be, Orokaiva still view them as linked by an exchange relationship. One side of this transaction has already been described in detail by Williams (1930:267ff.). A man becomes a *sovai* at death. As such he enters into various animals. An important class of *sovai* (though not all *sovai*) can be recognised by the abnormal appearance or behaviour of the animals into which they have entered. They are greatly feared and are thought responsible for a great variety of misfortunes. Thus if a man fears the supernatural dangers of the bush, he does not regard these as generated by anything inherent in nature, but as introduced by dead hunters and killers who retain their human wilfulness while deprived of human bonds.

In certain special circumstances bush creatures may re-enter the protected confines of human society. The most important example of such a reverse transaction between bush and village is furnished by the domestication of pigs. There is, of course, no zoological difference between wild and domestic pigs, both being scientifically known as *sus papuensis* and known in the vernacular as *o ohu*. The myths explaining the domestication of pigs are all very simple. In one of them the first pig ever killed by man was a sow marauding the taro gardens. After killing her, men heard a mournful song by the root of a tree. It was sung by her piglets who were thirsting for their mother's milk. The piglets were taken to the village and became the first domestic pigs. The piglets' song, of course, is still known.

The breed has continued until today, being constantly replenished by foundlings from the bush. As boars are castrated, sows mate in the bush. In the bush around Sivepe some wild boars must still exist, though these are probably the offspring of tame sows who have escaped to the bush.

The domestication of piglets is a complicated task which I once saw performed at Inonda. When a piglet was found in the bush it was given for rearing to an old woman who was an expert at domestication. She made a medicine by chewing together betelnut, *hingi* (a peppery leaf) and *arifa* root (in Sivepe *akore* root would have been used). She spat this medicine into all body apertures: mouth, eyes, ears, nose, rectum, genitals. A few hours later she carried the piglet to a creek, washed it and placed it in a string bag (*eti*) in the same way as a baby. Five days afterwards, the piglet could be seen walking through the village on a leash, held by its 'mother'. After two or three weeks, it was regarded as domesticated.

The medicine was intended to seal the piglet from *sovai* who might otherwise enter it. As a bush animal, the piglet was considered impure, dangerous, and liable to spirit entry. The Orokaiva believe that it is *sovai* contamination which

distinguishes wild pigs from domestic ones. Once the spirits have been effectively expelled, the piglet *thereby* becomes domesticated. This means that it obeys the calls of its mother. It learns to forage in disused gardens but keeps away from growing taro. The piglet will not stray too far into the bush but comes home every night to be fed, and goes to sleep under the house.

Yet some danger of *sovai* contamination always remains. It may happen that a village pig stays away in the bush and does not return when its mother calls. The mother keeps on calling it from day to day, still hoping that it will return, but after a fortnight or a month it is accepted that the pig has gone wild. Or else it does return when the mother calls but returns to the bush as soon as it is fed. In all such cases people say that the spirits took the pig away and did not send it back.

These facts suggest an exchange cycle arising out of the following four notions: (1) A man turns into a *sovai* upon death. (2) *Sovai* entering pigs maraud gardens and attack humans. (3) A pig is domesticated by the driving out of the *sovai*. (4) Meat from the domesticated pig provides man with the *ivo* (strength) he needs for hunting pig. (This *ivo* makes man a dangerous *sovai* after death.) This cycle may be expressed as follows:

MODEL 22

Live domesticated pigs are not used a great deal for the mediation of social exchange. Certainly the rearing of pigs enters widely into the exchange of prestations between the sexes, for it is a task women customarily perform for close kinsmen (husbands, brothers, sons). In addition it is not infrequent for piglets to be given to relatives and friends from different villages whose wives then rear them 'for the owner'. Salisbury (1962) noted a similar custom among the Siane, but here the purpose was somewhat different. The Siane have feasts at which 150–200 pigs are slaughtered. Here the recalling of lent pigs is an essential prerequisite for the holding of a feast and, indeed, feasts on this scale would be impossible unless the task of rearing was distributed among several villages. Orokaiva feasts involve far fewer pigs (seven, at a Hohorita feast, seemed normal). Admittedly, lending pigs for rearing does have an obvious economic advantage, similar to the one suggested by Salisbury: once the owner has lent a piglet to a man from another village, he finds it easier to resist demands that will be made from time to time by relatives who 'urgently' need a pig for purposes too compelling to ignore.

Basically, however, this institution is just another way of mediating social exchange. By lending a man a piglet one starts a partnership. The partner does not usually return the pig he has reared but instead gives a piglet which will in turn be reared by the original donor. One might say that the offspring of the donated pig returns to its 'mother's' village. In this way the institution of

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

224 825 571 to a man who had lent an ornament for a recent ceremony. I was told that meat is sometimes kept for 'months' so it can be offered at a feast or used to discharge an obligation. The housewife smokes the meat over the fire every day so that, after a while, it becomes very 'strong'; the 'stronger' it is, the better.

[251 431 437] While the economic motivation in the final disposal of the joints is plain enough, it is less easy to understand the elaborate exchanges immediately following the killing. There are no taboos that could explain why these exchanges were made. One might, of course, account for the whole series of gifts in the same way as I accounted for the taro gifts made between close associates: as a means of maintaining a quasi-commensal kind of social relationship. But such an explanation obscures an important difference between gifts of taro and pig meat, namely that gift taro is usually only a small part of the harvest, whereas it appears to be regular practice (even though not supported by taboo) to give [262] away *all* the meat of a pig one has killed. There is a strong, empirically demonstrated, preference for eating pork that has been *given* rather than pork that has been personally killed.

262 The essential difference between taro and pork, as perceived by the Orokaiva, has already been discussed in a previous chapter. The difference is that taro is regarded as a staple food to keep men alive, whereas pork is regarded as a food of special power enabling men to succeed in tasks of great difficulty, in which [778] success is always precarious. Pork has a special power or *ivo*. The reality of this belief is obvious from field observation. Meat-eating arouses in the Orokaiva a mood of extraordinary festivity and gaiety. After meat, he shows an exuberance and excitement Westerners display only when they have drunk a good deal or are 'turned on' by mild drugs. While one can think of biochemical causes for the Orokaiva behaviour, they explain this excitement themselves by referring to the *ivo* or spiritual qualities of meat.

778 262 224 431 773 These beliefs do not, in themselves, explain why it is considered better for meat to be given rather than consumed by the killer. They do, however, carry us back to the myth – already considered in detail – by which Orokaiva explain the origin of human *ivo*. *Ivo* was personified in Pig-man Totoima until his son slew him and cut his body into pieces. These joints, shared out among men, made the people multiply so that men are now spread throughout the world. The important point to note in this myth is that *ivo* did not come from the mere eating of the meat, but from the sharing out, following by the eating. If *ivo* is to be attained, it has to be through the re-enactment of the myth, which means not only the eating but also the sharing out. This sharing out is always done by cutting a pig into the very same joints as those into which the dead Totoima was dissected. Hence pork – whether derived from a wild or a domesticated pig – is magically most effective if it is a gift.

5. *Domesticated Pig as Victim*

231 825 Pig meat provided at the more important ceremonies of the Orokaiva comes far more frequently from domesticated than from wild pig. One reason for this is obviously practical: the more important ceremonies require very intricate planning in many spheres. The meat supply, which is a crucial requirement for such ceremonies, cannot be left to chance, though wild pork can usually serve to

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

add lustre to a feast or to economise on domestic pig. Informants told me that for most ceremonial purposes, wild and domestic pig are interchangeable. In general, therefore, one may say that pigs are reared in order to provide a bigger and more dependable supply of pork. I was unable to discover any instance of a rule requiring *only* wild pig to be used for any kind of ceremony and declaring domesticated pig to be unsuitable. On the other hand certain ceremonial gifts of pigs are made between affines, where a rule stipulates that the pig *must* have been reared by a particular person – the bridegroom's sister or the bride's mother. Such instances have to be carefully studied, as they indicate that the value of the meat transferred in the transaction may sometimes be derived partly from the labour expended by particular persons who reared the animals.

We have already pointed out that some rudimentary sacrificial notions enter into a hunter's action towards his quarry, but it is only the killing of domestic pigs that can be described as *sacrifice* in the full conventional sense of the term. Williams (1930: 61) applies this term to the slaughter of pigs but provides no analysis of the sacrificial process. Such analysis is not altogether straightforward, as the anthropological study of sacrifice has hitherto remained confined to the application of two models: one derived from Robertson Smith after the analogy of Christian *communion*, and the other derived from Mauss, (1968: 193–307) whose chief inspiration seems to have been the doctrine of *piaculum* among the Brâhmanas (viz. Mauss 1968: 352–4). The wide applicability of Robertson Smith's model has recently been well argued by Stanner (1960–3) and Bellah (1964), while Mauss' model has been enshrined by such brilliant ethnographic applications as Evans-Pritchard's study of *Nuer Religion* (1956).

These two models have a great deal in common, but differ in final destination of the victim and the postulated aim of the sacrifice. As Evans-Pritchard has pointed out (1956: 275), the aim may be to keep the god away or get rid of him (as in Nuer piacular sacrifice), or to establish union or fellowship with him (as in Christian communion, and in Australian *intichiuma*).

Neither model appears to be very appropriate to Orokaiva sacrifice, as it is not clear at all just who the god is to whom the sacrifice is being made. The only divine agency that seems to appear in pig sacrifices, including the major feasts, are spirits, loosely described as belonging to the 'ancestors'. These do not appear to be specific personalised ancestors but seem to be identified with the demigod, or *dema* who instituted the feast, as well as with other *dema* who introduced the various products used at the feast as gifts, ornaments and the like, as well as with clan and lineage ancestors who are responsible for the well-being of the land. A big feast seems to involve the whole pantheon. If this were all, one could classify Orokaiva sacrifice as aiming definitely at communion, as the ritual preceding the feast and during the feast quite clearly has the effect of drawing the divine beings down into the village, and making them enter the persons of the celebrants who behave as though they are possessed by these spirits.

But in addition one must often regard the sacrifices as being made, in a very real sense, to the guests. There are of course pig sacrifices where communion with the god is the only or predominant purpose. For instance, it is customary to sacrifice a pig when new taro fields are prepared for planting and the flesh is shared between the men of the local clan group. Here the purpose is no doubt to bring about an identification of the men with the original ancestor who first

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

574 782 successfully cultivated that land, and at the same time no doubt with *dema* figures who instituted agriculture. But most sacrifices have to do with social relations that are either being entered into or that are being restored after a 431 period of hostility. In all such cases the sacrificed pig serves as a gift object to 437 the persons whose friendship is being sought. These persons may be clansmen, [572] uterine kin, affines, bond-friends, trading partners, or persons who have rendered important ritual services.

578 431 571 825 [824] An exhaustive list of examples of such sacrifices, very often involving only one pig and a rather minor ceremony, cannot be given. If a person has broken off social relations with a close relative in anger, by showing this relative his plant emblem, then relations can be restored only if the angry man is persuaded to 'throw his plant emblem away'. If he does this, the person to whom the plant emblem has been shown will sacrifice a pig. Again, if a man feels that he has neglected a fellow clansman for an unduly long time, he will end the estrangement by offering up a pig. A pig may be sacrificed to mark any reconciliation after a quarrel. The sacrificer in such a case appears to admit his [754] own guilt and to restore a wrong done to the other person. Very often such a reconciliation follows a misfortune attributed to sorcery. The medicine man will determine, if the sufferer does not already know, who has caused the sorcery to be performed. It is then considered highly important to arrange a reconciliation with the person responsible for the sorcery. This person is not infrequently a close relative, such as a father's sister or mother's sister. The sufferer will offer up a pig if the dangerous relative is willing to forgive and forget. Sacrifices are also required when a person has violated a taboo, e.g. quarrelled in the presence of a cross-cousin or affine. In all such cases a feast will be held at which the wronged person receives the sacrificial beast.

The same pattern may be found in the larger ceremonies. I shall show in a later chapter that the various prestations rendered between affines can be viewed as propitiatory gifts made to allay anger at the wrong done by the other party. This is certainly true for the gifts made on various occasions by the husband, the 628 husband's sister, etc. to the wife's relatives. Feasts given on the occasion of 728 peace-making, or on other occasions where whole villages are invited can likewise be shown to have as their prime purpose the ending of strife. In all such cases the 574 sacrifice of pigs is preliminary to their utilisation for the mediation of social exchange.

This pattern does not appear quite consistent with the communion model of sacrifice. Not only is there no rule that the offerers of the sacrifice should eat of the victim; on the contrary, we shall see that they are strictly forbidden to eat of it. The guests carry all the meat away with them and distribute it among their own group. One almost feels that the expiatory model might be applicable: the offerers of the sacrifice define themselves as offenders, they expiate their wrong-doing by sacrifice, the flesh of the victim becomes taboo to them.

782 571 574 431 The contradiction disappears if we regard communion with the god not purely as the ultimate end of sacrifice but also (and simultaneously) as the means to the mediation of a social relationship. I am suggesting that the Orokaiva believe that the killing and offering of a pig is not *in itself* sufficient to initiate or restore a social relationship: it is also necessary to make the offering in a properly ritual manner. The ritual involves the establishment of communion

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament. 796 574

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children. 782 [825] [784] [842] [602]

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests. 574 614 621 [628]

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals. 574 628 437 [789]

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to this reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery. [789] [244]

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A 574 621 [789]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Hence, *otohu* might serve as symbols of high social status whereas *hambo* are less useful in this regard, being worn only intermittently and never with a purely social purpose in mind. 301 554

The usefulness of *otohu* as status symbols is further enhanced by the fact that they are transferable from generation to generation. The Member of the House of Assembly for the Northern District told me he always carried his *otohu* with him when meeting his constituents and that he would display it conspicuously attached to his betelnut bag, because a great many people would know this *otohu*: it had belonged to his *epe* who had been a famous war chief and sorcerer. He believed that people in his constituency had great respect for this *otohu*. He made it sound almost as though he was carrying the *insigne* of a hereditary chieftainship, but in fact the basis of his influence was far more complex: it was in part agnatic, in part uterine, and in large part personal. Nonetheless, the *otohu* was obviously very useful to him in establishing new social relations.

Whatever social effect a *hambo* might have would depend mostly on the beauty of its construction and the rarity of its materials. While informants might sometimes think its history and associations worthy of mention, a *hambo's* association with a particular family is usually rather loose, as the right to wear *hambo* of a particular type is never, to my knowledge, restricted to a family. The main effect and power of a *hambo* appears to be aesthetic. It is used to impress partners in a dispute, dancing partners or young women whose passions one hopes to arouse.

Unlike the *otohu*, the *hambo* does not otherwise emphasise the identity of the wearer. One the contrary, a fully decorated person, wearing a head-dress, *hambo* and face-paint, is supposed not to be recognisable as a person. One should on no account address him by name. He represents an *embahi* and, as such, is completely depersonalised. More specifically, the dancer represents a natural species – a pig, a wallaby or, in the case of women, a bird, a butterfly, a flower. The details of these identifications need to be studied more closely. The significance of the decorations is very similar to that of the masks used for dancing in other parts of New Guinea. The face and body become a medium for decorating: the individual assumes the persona of an ancestor; his private existence is covered over to display only his social function. 301 302 242 776 [825] [824]

This total lack of personal identity inherent in the *hambo* makes the object easily transferable from one individual to another. it always belongs essentially to the ancestors and is thus alive with spirit. By transferring it to another, a man emphasises that he and the recipient share some link with the spirit world and this implies amity, the primeval absence of strife. It also probably implies in some way the message of the sacred flutes by which man's contact with the spirit world is established. Further research no doubt will enable us to be more precise about the meaning of these transactions. They occur in a great many social contexts: *hambo* are given away to settle a quarrel, to pay bridewealth, to establish and maintain an important friendship. They are frequently lent to persons about to dance at a feast, and a gift of meat is then required from the borrower. They are lent by the *kogumbari* expert for a similar consideration, and are also bartered and sold. Some people, and not always the most prominent, make large collections of them, and most people of rank have a good store of them, as they are a necessary part of the ceremonial gift exchange system. From 301 431 556 425

101 Beaver (1915: Appendices 3 and 4) speak of the Jegasa-Sarua (or Jigasa or Jegasa-Sarana) and of the Atibi Guma (or Atibeguma) as tribes but are inconsistent in locating them in relation to their neighbours.

Since 'Wasida' people were allied with Sangara groups in fighting their neighbours to the north (the Divinikovari, Togahau, etc.), Williams' only grounds for treating the 'Wasida' as members of the same tribe as the Hunjovarehu and as opposed to other neighbours, including the Sangara[1] is the precedent sent by Chinnery and Beaver (1915:48) who claimed that their map of linguistic areas 'will show with tolerable clearness the various groups of tribes'; although Williams claims that 'the ultimate bases of the tribal division are political and economic' (1925:406), he states that his classification is based on their list of linguistic differences (1930:5) and follows them 1930:150 and end map; 0.9) in placing Divinikovari in the 'Wasida' area; he himself adds (ibid.) that this language classification 'apparently does not coincide with the tribal classification' since the Divinikovari (i.e., Hunjovarehu) and 'Wasida' are of different tribes.

Belshaw (1951:2) and Plant (1951: Appendix 4) prefer 'Periho' to 'Wasida' as a tribal name. The local people agree at least that 'Wasida' is inaccurate because it is really the name of a village[2] and may refer only to its inhabitants, or sometimes also to its immediate neighbours - just as Sivepe villagers may be called Awala people after the nearby village of that name; this identification with a named group of villages or 'hamlet group' seems to be weaker than it was even a decade ago.

[829] On the other hand 'Periho' (alternatively 'Berepo') is a general term for 'bush', that is inland peoples,[3] used by those closer to the coast (usually to the east) and is applied by them indiscriminantly to several tribes - at times to the Sangara (Williams 1930:6; 0.410). The Sivepe people are sometimes spoken of as the 'Kombu Periho' (kombu, from or of, a mountain or height);[4] they prefer to use the term 'Kombu Sangara' when referring to themselves and other Orokaiva from the slopes of Mt Lamington.

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[1] Plant (1951: Appendix 4) also argues against this.

[2] Williams was aware of this (W.10) although he usually chose to retain the European-introduced usage, sometimes referring thus, as with 'Jegasi-Sarahu', to the tribe as he saw it and sometimes to the group of villages in the tribe.

[825] [3] One meaning of 'periho' is a small wild pig from the bush.

[4] This is applicable a priori to the Sangara.

[p. 106 is blank]

484 produce could be sold directly to buyers at the village.[1] Nothing
[491 in Table 6:11 suggests that this move is related to the changing
location of gardening activities since the percentage time spent on
[361 travelling in connection with clearing activities is actually less
than that in connection with subsistence gardening.

Table 6:11

Sivepe: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

[361] [1] Other reasons given for the move included, firstly, that the new
[824] village would be an amalgamation of four existing ones and this
[825] enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

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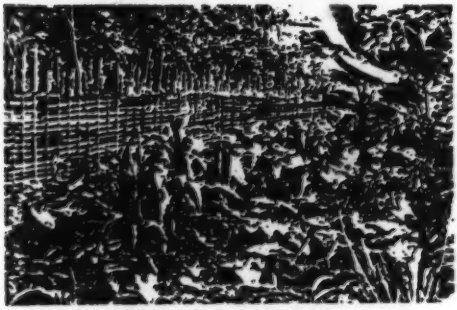


Fig. 6. *A Yega swidden. Notice the variety of interplanted crops which here include maize, taro, sugar cane, pineapple, paw paw, and bananas. The fence, built to keep out wild pigs, is about five feet high*

241 b) *Fencing.* Most Yega swiddens are fenced, at least partly, against the depredations of wild pigs (Fig. 6). Since fencing is a tedious task, natural features such as steep creek banks are utilized as fully as possible. But frequently one finds a swidden entirely fenced except for a gap left purposely to tempt the pig to enter the garden. A trap is then set, or a hunter takes his stand nearby at night. When the gap is not being used for hunting purposes, a fire is lit or pieces of rag are hung there; pigs scenting human beings will not then enter the garden.

[224]
[825]

241 c) *Division of labour.* Most garden work is performed by both men and women, but cut-
462 ting large trees is men's work only, and harvesting is performed by women only. Incidentally,
[482] the women also carry the loads of vegetables weighing sixty to seventy pounds back to the villages, often three or four miles, sometimes with a load of firewood and a baby on top.

262 d) *Sago production.* Sago is an important supplementary food; it is particularly important as a famine reserve. During an unusually long dry period in 1965 the Yega and their neighbours were reduced to living, for some months, almost exclusively on sago. Production
222 is a tedious process. Sago is a starch which, with fibre, makes up the internal bulk of the

[P.9-B]

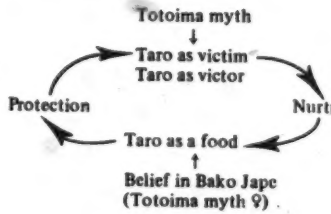
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

this reconciliation, he sacrifices himself symbolically in the form of his feast taro. But as the myth states, this sacrifice is not a final death. After the feast is over, the feast-giver is more spiritually potent than ever, having obtained the assistance of his own ancestral spirits. He is thus able to overcome his enemies.

Although these ideas are all in some way implicit in gifts of feasting taro, their threatening aspects are kept very much in the background, as the ostensible purpose of the occasion is to establish amity. If the gift represents a display, in very pacific form, of the donor's power, it also offers an opportunity for communion as the recipient consumes food imbued with the spirit of the donor and the donor's spirit thus becomes, as it were, part of him.

At this point we may summarise in a more formal manner the results of our analysis. The insight we have obtained into the meaning of taro gifts suggests that part of the Totoima myth may be represented by the following exchange cycle:

MODEL 18



This diagram does not represent the transaction between Totoima and his son (which has already been analysed in model 5), but rather the transaction between the taro woman (Totoima's daughter) and the man from Managalase. Here the man acted as protector while the woman provided nurture. The man from Managalase is primarily a hunter. He arrives on the scene with a wallaby slung over his arm. When he finds Totoima's son with his innards missing, he replaces these with the innards of the wallaby, thus enabling the son to kill his father. Clearly the meaning is that man, while having nothing but taro inside him, becomes necessarily the victim of the wild pig (Totoima), but when he has meat inside him he becomes strong and able to kill the wild pig. Thus man, by his concern with hunting and the provision of meat, becomes a protector to his wife.

The Managalase is a neighbouring district where the main crop is yam, not taro, though a variety of inferior taro (*pijama*) is grown in small bush clearings. The Managalase magician is therefore in an intermediate position between Totoima and his son. Unlike Totoima he recognises the technology and domestication of taro, but inadequately as he is mainly a hunter. Such, at least, is the Orokaiva view of Managalase.

Taro, for the Orokaiva, is symbolic of strength; it is preferred to other staples because it is believed to build stronger men. The success of an Orokaiva feast is measured principally by the amount of taro that changes hands. It is significant that in the fighting between Orokaiva and Managalase, the former were most often the agressors and the latter the victims of cannibal raids, inroads on

A [See Category 773, p. 64--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

824 262 827 [721] hunting territories and the like. Thus the Orokaiva regard themselves as stronger than Managalase (certainly they are more numerous as their fertile land can support a far denser population), which served to show the superiority of taro over yam.

The taro myth discussed above may therefore be recognised as a charter for two contrasting types of taro gift made by Orokaiva. Woman provides cooked taro domestically but man, in providing the raw feasting taro, employs taro as a symbol of fighting strength. Heaped up in the manner of sacrificial victims, they are given to guests, not so much to express commensality as to display and offer for consumption the competitive strength of the donating group.

824 773

4. *A Survey of Taro Gifts*

824 431 125 128 One special interest that taro gifts hold for the field anthropologist is their great frequency which opens the possibility of statistical analysis of a fairly large number of gifts of a fairly homogeneous kind. Twenty-two households were visited daily (or almost daily) providing a record of taro gifts made over twenty-eight days from 31 January to 10 March, 1967. Informants were asked to whom they had sent presents during that day and from whom they had received presents. The survey provided useful incidental information about visitors who had been in the village during the day without my knowledge, and about gifts of objects other than taro. For the purpose of analysis I ignored gifts made to persons not resident in the village, as these were scattered over a great many villages and the survey period was not long enough to establish statistical regularities. Waddell reported that 40 per cent of taro gifts were made to persons outside the village (Sivepe), 10 per cent to villages within one mile of Sivepe, 14 per cent to villages situated between one and two miles from Sivepe, 9 per cent to more distant villages and 6 per cent to expatriate centres. (1968: 218). The statistics compiled by Waddell, however, are in terms of weight rather than the number of gifts. A gift of cooked taro made within a village was for one meal only (averaging perhaps 5 lbs.) while a gift of raw taro made to visitors from other villages or at feasts was more likely to weigh at least 25 lbs. Thus the number of gifts made to persons other than villagers was less than 10 per cent of the total.

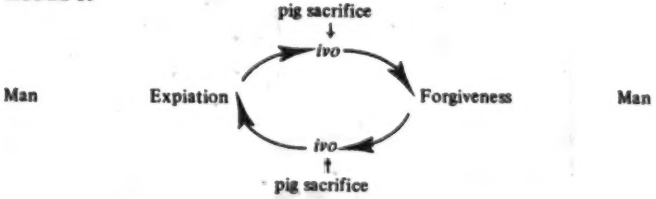
As I intend to draw some significant conclusions from the statistics of intra-village taro gifts, it is relevant to describe briefly some difficulties I had in collecting these statistics. The fact that households were asked to report on gifts received as well as gifts made provided an effective check, as ideally all items should have been mentioned twice, once by the donor household and once by the recipient household. People very often forgot to tell me of some of the gifts received and made. Some people were most likely to forget what they had received; others would forget what they had given. If my study had been biased towards psychological anthropology, the frequency of these types of memory lapses among individuals might have given me a basis for establishing a typology of exchange partners. I soon found that nobody claimed gifts they had not actually made or received

From the first day of the survey it became obvious that my questions, simple though they seemed, contained an unexpected ambiguity: should the informant

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

782 sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an
574 effective identification of man with the power-conferring ancestors.
571 Models 23 and 24 may be reduced to a single one which shows the essence of
431 the whole transaction:

MODEL 25



571 This model, which is on a more abstract level than the previous two, states
778 that two parties standing in a relation of social opposition can establish or restore friendly association with one another through the *mediation* of *ivo* (the source of *ivo* being the pig sacrifices). This is the essential equation of social exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it is necessary and sufficient for efficacy if two parties participate, one in the role of offerer and another in the role of recipient. The roles of 'offender' and 'offended' are ritual roles in which the actual amount of guilt or shame felt varies widely according to circumstances. The assumption of such roles is made
● [828] necessary because strife has a continuously debilitating effect on man's *ivo*. Like many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217; Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man who feels it. But the Orokaiva emphasise even more the obligation of the offender to assuage that anger, however caused. Actual misfortunes are mostly explained by anger existing in someone else's heart. The guilty person is deemed to be he who, after being made aware of this anger, does nothing to remove it. If the angry person uses sorcery or does some other harm it is not he but the victim
[574] of retribution who should feel guilty. The oozing away of *ivo* as a result of strife can be reversed by the holding of pig-feasts at which the host goes through a ritual which contains elements of both communion and expiation, but which essentially serves the mediation of social exchange.

121 I shall now test the usefulness of this model by using it to account for some
128 empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the relative wealth of available material, the sacrifices made at inter-village feasts at the time of the main harvest. I shall also show how gifts made between affines may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

574 The decision to hold a feast might arise in two ways. First, there might be an
[628] urgent need to offer the feast to a specific outside group, e.g. to make peace, or return a feast to which the group had been invited. Secondly, there might be a
[556]

19: Schwimmer OJ23 Orokaiva OJ23

829

[For information on the "ethnosociology" of reciprocity and gift exchange, see Category 437.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

gift exchange differs to some extent from the Western exchange of Christmas presents with which it is sometimes compared. In the former, as opposed to the latter system, the acquisition of desired scarce resources is a most important consideration; the fostering of social relationships is equally important in both systems. 431

Westerners often criticise Melanesians for being too grasping and mean in gift exchange. Absurd though this criticism may seem, it arises from a real cultural difference: Westerners depend on institutions other than gift exchange for the acquisition of desired scarce resources. Hence the institution of exchanging Christmas presents need serve no other end but the fostering of social relations. For the Melanesians, with a rudimentary market system, gift exchange must serve economic as well as social ends. This lack of differentiation leads to the necessary consequence that social exchange is rarely effective unless prestations of economic value are exchanged between the partners and both sides are satisfied with what they receive. 431 436

Orokaiva regard exchange relations as the *causa efficiens* of social relations; they cannot envisage any significant social relations in the absence of exchange relations and they ascribe all breakdowns in social relations to an antecedent breakdown in exchange relations. They support this view with cogent and sophisticated arguments, which will be presented throughout this work. Here, I shall quote only a few examples of their reasoning so as to give it some *a priori* plausibility. 431 436 829

One evening a women's dance practice was interrupted by an angry man calling his wife to come home. It turned out that his son's wife, who lived with the couple, had run off and returned to her village. The immediate cause of this escape was clear: he had tried to seduce her. He considered himself entirely justified in doing so as the young woman belonged to his son. To which his wife retorted that the son was hers also. The loss of the young woman, for whom bride price had been paid and whom the son would certainly expect to be reserved for him, was very serious and led to a meeting involving his clan, his wife's clan and the son's wife's clan. This meant that all of Sivepe was there, as well as a number of people from neighbouring Sasembata, the son's wife's village. A councillor was invited to adjudicate. The Sasembata people's arguments were interesting but not relevant here. The meeting was mainly concerned with what was regarded as the key problem: the conflict between the older couple. Their marriage had been unhappy for some years. The wife had been away to Port Moresby for a long time; when she returned the husband had gone away, also to Port Moresby. When he came back he found his wife was having an affair with another man. He himself was constantly chasing his three daughters-in-law. 581 586 627

The meeting addressed itself to the question of what had caused this marriage breakdown. The husband had been wrong to pursue his daughters-in-law; the wife had been wrong in committing adultery, and so on. But how did it begin? Why had the wife gone to Port Moresby in the first place? So she told the tale. She had had diarrhoea; her husband had become angry. But she kept on going out of the house. She then took some of his betelnuts to chew, and he told her in a fury that he did not want her to go to his garden any longer. She did not get food for a day and a half and then left for Port Moresby.

No further questions were asked. Once the husband had confirmed this

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

account, the meeting ruled that the cause of the marriage breakdown was the husband's refusal to allow her to enter his garden. The attempted seduction, the adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

Another such case was that of a man who took sides in a quarrel between his brother and another man who had been trying to rape, i.e. seduce by force, that brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him. And why would nobody help him? Well, brideprice had been paid for his first wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the breakdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

In both instances a basic exchange cycle had been broken and that was thought to constitute the essence of the relationship. In the first case this was the exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

2. *Folk Explanations of Exchange*

Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

says that at the end of original time, warfare became an intrinsic part of social life. Two more specific messages emerge:

1. The institution created by the thief was *isoro* (intertribal warfare) which was cogently distinguished by Williams (1930: 160–6) from *embogi* (inter-clan fighting). *Isoro*, as opposed to *embogi*, takes place between groups who are geographically fairly distant, are often the speakers of different languages or dialects, and who do not usually maintain close social relations. In *isoro*, but not *embogi*, men fight to kill and eat each other. The myth therefore provides a charter for an institution by which social groups are in permanent strife with one another and permanently seek to kill and eat each other.

2. The myth states that this trife, in particular, divides the people from up-hill and down-valley. I have already pointed out that the main immediate cause of warfare around Mount Lamington was pressure of population generated on the fertile foothills, which led to groups being driven downwards, while these groups in turn drove the valley people further and further from the mountain to less desirable territory.

The social philosophy expressed in this myth is therefore based partly on the observation of ecological realities. Given a fertile centre and an increasingly infertile, but practically boundless periphery, strife is indeed endemic between social groups because the centre will continue to develop a denser population than it can support, and will always be able to muster much bigger raiding parties than the sparsely populated hinterland. It may lose battles now and then but in the long run it must be able to drive its excess population downwards. Thus the opposing forces will tend to be placed, as the myth says, up-hill and down-valley. The historical facts, as reported by Chinnery and Beaver (1916), Monckton (1921, Ch. XXIV) Williams (1930: 152–4), and Crocombe and Hogbin (1963: 14–16), all suggest that valley populations such as Aiga, Sauaha and Dobudura originally lived near the mountain and were driven off.

So far, Orokaiva social philosophy looks notably like Hobbes' view of social life as it would be in a state of nature. Between the warring groups, certainly, there appears to be no justice or injustice, but only war, and 'force and fraud are, in war, the two cardinal virtues'. How can fiduciary social relations be established at all in a world of this kind? As we know, Hobbes argued that it could be done only by the establishment of central authority, a step the Orokaiva did not take.

In order to present, as fully as possible, how the Orokaiva answered this question, I shall begin by quoting a myth told to me by Gideon of Hamburata, a village in the Sasembata district.[1] I had asked Gideon to tell me the origin of feasts, then taped the reply and translated it from Orokaiva:

> I shall tell you how feasting began.
>
> Three men, after marrying wives, set out and settled by the root of a *barivo* tree. They had twelve children. When they had enough children, they built a house and founded a village. Then, deciding to leave, they made a feast by the root of that tree.
>
> They all collected taro, made a platform, prepared all the food and got ready. Gasi, the last-born son, tied together his taro for the feast, intending

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Totoima's body, from which all derive their *ivo*. The feast seems to be the occasion *par excellence*, at which the primeval communion is re-enacted. This is, of course, a point that needs careful empirical demonstration, which will be given in Chapter VII. All I wish to suggest at this stage is the existence of at least one ritual device whereby the state of permanent *isoro* between social groups can be overcome, the re-enactment of a communion for which the Totoima myth provides the mythological charter. Such a communion may be brought about only by a long series of economic and ritual preparations, such as a feast requires; there must be an abundance of taro and of pig, there must be feathers and ornaments, new loincloths, musical instruments and guests willing to share in the communion. Above all, there must be skilful magic. Even then, the success of a feast is never predictable, and always hangs in the balance. Thus the communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at war) it is frequently attempted. The social philosophy of the Orokaiva, then, starts from the assumption of the gulf that yawns between man and man, and proceeds to delineate various techniques (of which the feast is one) to bridge it.

We are now able to see more clearly why among the Orokaiva social exchange is rarely effective unless prestations of economic value are exchanged between partners to mutual satisfaction. Relations between social groups are generally unsatisfactory and hostile, but they can be made harmonious if one side gives the other a feast, which the other side must reciprocate. The harmony thus established is an extraordinary state which is sure to be interrupted by subsequent conflicts, so that feasts must be held periodically to keep group relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

A feast tends to be held by two social groups between whom relations have turned somewhat sour. There may have been a war, or a murder, or some other grievous act of violence or there may have been no more than minor friction between them. One side may suspect that the other performed black magic against them. Generally speaking, however, by the premises of Orokaiva social philosophy, both sides will have been storing up some grievances against the other. Often neither side will be willing to admit to the major responsibility for

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

the ill feeling that has built up; usually any attempt to assign guilt would lead only to further conflict, as the record is too tangled to be satisfactorily sorted out. The party which decides to hold the feast and to invite the other side may or may not admit that it regards itself as guilty, and that it owes the other side a debt. The past is simply set aside and the host acts as though the feast is a free gift, an expression of disinterested love and generosity. The guest at the feast accepts the same fiction.

Accordingly, if we regard a feast as an occasion for social exchange, as the Orokaiva undoubtedly do, the basic objects of exchange are repentance and forgiveness. Sometimes a few words are exchanged between host and guest to express this notion of forgiving and forgetting, though I do not suppose this is invariably the case. On one occasion I invited a man to have a feast with me, after some months during which he had been acting unpleasantly towards me for reasons I did not quite understand. I must have unwittingly offended him. After the meal he said: 'I did not really know you before now.' This implied that he was willing to forgive and forget whatever had previously annoyed him. At the same time, the fact of my inviting him indicated that I was sorry for whatever I had done wrong. What we were really exchanging was a willingness to change our attitudes to each other, which involved some effort for both of us. Whether this is, in practice, done genuinely or only ritually does not concern me here as I am discussing feasts from the viewpoint of Orokaiva collective representations. When two groups feast together, each has the obligation to feel sorry for any offence he has caused and to forgive any offence caused by the other side. It is only thus that the feast can interrupt the inherent enmity between man and man. Through the sharing of meat the two sides re-enact the communion existing in primordial times when men, as brothers, shared the body of Totoima.

An essential part of any feast is that the host should offer meat to his guest. But it is a total misapprehension of Orokaiva social philosophy to believe that it is the meat that is being exchanged for forgiveness. If that were so, it would not be essential for the two parties to consume it together. Certainly, if I have offended another person, I may make him a gift of meat in reparation. This is often done. But the reconciliation between the parties is not effected by such a gift alone. There must in addition be commensality (the common eating of taro) and communion (the common eating of meat). The meat used in such a communion is not an object of exchange. It is better described as a mediating element which makes possible the actual transaction (i.e. the exchange of repentance and forgiveness). Orokaiva are quite definite that there can be no true repentance and forgiveness between men unless meat is consumed between them. One may therefore regard meat as a *necessary* mediating element in this transaction.

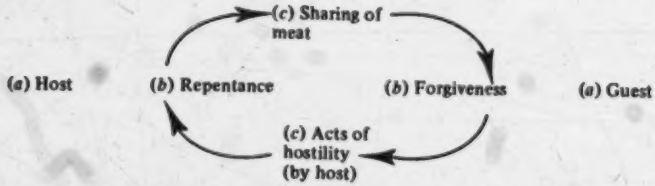
Perhaps the most useful insight to be derived from Orokaiva social philosophy is that the natural form of a social relationship is cyclical and moves regularly from hostility to reconciliation and back to hostility. In other words, the Orokaiva do not see the model of a friendship, as do Westerners, in the form of a perpetual harmony, so that every conflict that arises is regarded as a deviation from the model. On the contrary, Orokaiva consider conflict as intrinsic to the model. This is true also in the discussion of quite intimate relationships: father and son, husband and wife, and so on. The perfect relationship is not one where

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 571 no quarrels occur (Orokaiva do not seriously envisage such a relationship), but one where quarrels are resolved before they have gone too far. The Orokaiva would feel more affinity with the sociology of Simmell and Blau than with that of Weber and Parsons. A bad relationship is one where the cycle *reconciliation – quarrel – reconciliation* is interrupted, and the relationship is broken off, or the quarrel intensified until one of the parties resorts to sorcery.

829 571 We may express this view of social relations diagrammatically in the following simple model, where (*a*) stands for exchange partners, (*b*) for objects of exchange, and (*c*) for mediating elements.

574 MODEL 1



This model, first of all, contains three binary oppositions. The exchange partners are represented as opposed to one another. This corresponds to empirical reality because at any feast the persons present always belong in one of these two categories. Secondly, there are two objects of exchange between which a conversion takes place. One partner gives repentance and receives in return forgiveness. I have already pointed out that in practice both parties may feel guilty so that both may be offering repentance and forgiveness at the same time, but this is not essential and not included in the model. Furthermore, I have assumed that the host is the repentant party. This assumption is made because the person who gives the feast demonstrates thereby that he is more anxious than the other to restore the relationship. It is he, therefore, who is playing the humbler role and this is expressed in the model by making him the 'repentant' party.

It will be clear that an expression of repentance does not necessarily imply that the other party will offer forgiveness. A man may invite another to a feast and the other may refuse to come. In that case there has been repentance but no forgiveness and no feast. The exchange cycle has been interrupted by the other's refusal. But if the guest comes, he indicates that he is at least willing to forgive. Even then, the transaction may break down. There may be angry words between host and guest; the guest may expect some additional reparation and not be satisfied with what he gets. The ideal model of Orokaiva social relationships, however, assumes that the conversion will be successful.

The third binary opposition is between the mediating elements. I have already said that Orokaiva social relations move from a state of permanent strife marked by acts of hostility to temporary reconcilations mediated by the common eating of meat. There is justification for treating these concepts as binary oppositions. I have demonstrated that the common eating of meat is a mediating element because without it no exchange of repentance and forgiveness takes place. It

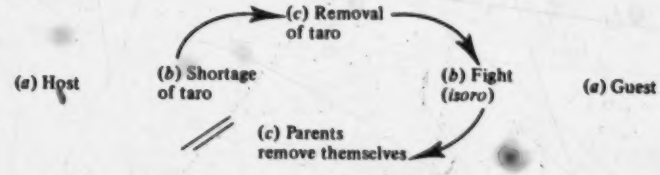
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

goes without saying that acts of hostility are also mediating elements as, in their absence, there would be nothing to repent or to forgive.

In addition to three binary oppositions, the model contains a cyclical movement. One may start reading the diagram at any point on the cycle. For instance, one may start with acts of hostility, *isoro*. (According to Orokaiva philosophy, such acts require no special explanation.) These are followed by repentance, shown by the host in inviting the victim of these presumed acts of hostility to a feast. The sharing of meat follows, after which the guest, either in words or gesture (and probably by subsequent actions), indicates that he has forgiven whatever he had been angry about. Then, sooner or later, social relations lead to new acts of hostility and the cycle starts again.

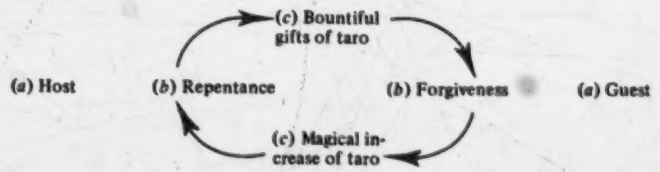
While this model expresses adequately the Orokaiva view of social relations, we must admit at once that the feasting myth from which it was derived communicates a more complex message than this. It deals, in fact, with two exchange cycles at once, but overtly the myth does not mention the sharing of meat at all. On the contrary, it is concerned only with the sharing out of taro. The exchange partners are again host and guest; the exchange, as told in the myth, is between a shortage of taro provided by the hosts and a fight provided by the guests. The mediating elements are: the removal of the taro by a thief (arising out of the shortage; bringing about the fight) and the removal of the demigods responsible for the feast. The exchange cycle created by these elements reproduces the sequence of the myth:

MODEL 2



It will be noticed that the exchange cycle is incomplete. In the next section of this chapter, I shall show that exchange cycles in myths are always incomplete, and I shall explain why this is a special characteristic of myths. Indeed, the chief message of the feasting myth is that the incomplete cycle shown above should *not* be repeated; instead it is the following cycle that has become institutionalised:

MODEL 3



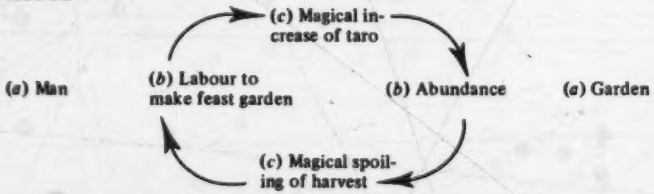
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

829 571 574 [243] [789] This model is very similar to the exchange cycle in which meat is served as the mediating element. I have already pointed out that taro, displayed on a huge and impressive platform, is an essential part of the gifts offered at a feast. I did not then quote the folk explanation of this. I was told that harvest feasts are beneficial to the donors because feasts make the taro grow well. On further enquiry I found that the Orokaiva believe that taro *always* grows well except if sorcerers from other villages put a spell on it. One of the rituals at a feast is a kind of rain-making ritual performed by medicine men from among the *guests*. When I asked: 'Why the guests?', I was told that they would be expert at removing the bad magic from the gardens because, in all probability, it was they who put it there! We can now see why it is that the guests' forgiveness, in the model, leads directly to a magical increase of taro. I was also told that the increase in the taro harvest would enable the hosts to give another feast soon afterwards. As this second feast would normally not be given to the same group as the first, the idea suggested by the model is that successful feasts enable a village to give an infinite series of feasts, thus attracting an infinite number of allies, one after the other, and becoming infinitely powerful.

574 182 [243] [789] [728] In reality, however, this infinite series is interrupted by disappointing harvests and other misfortunes. Such misfortunes are ascribed to the sorcery of enemies, and in order to remove this sorcery, a *peka* is made with the enemies. A feast is held; and it is thought that matters will again improve. There is a periodicity of shortage and abundance, coinciding with the quality of external relations. Prior to the *pax Australiana*, bad external relations caused frequent warfare, the marauding of gardens or the lack of attention to gardens. Feasts had to be held occasionally so that the intensity of warfare would not lead to a serious depletion of food stocks. Feasts thus produced an abundance of food, because they provided peace, or at least a respite from war. The institution of feasting kept the scale of warfare down to a level which the people could economically afford. This ecological basis of the cyclical movement between war and peace is well documented in Rappaport's book about the Tsembaga (1968).

574 243 In terms of the model developed in this chapter we may express this cyclical process as follows:

MODEL 4



This exchange cycle belongs to the level of ecology rather than of social relations. The exchange partners in the model are man and his garden. The objects of exchange are the man's extra labour, needed to make a feast garden, and the abundance of taro that his garden can provide in good seasons. But it will not do so merely in response to man's labour. Labour alone cannot

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

exhibited at every feast for guests to take home. This is an essential mediating element in the social exchange between hosts and guests, and appears as such in model 3. But why does this taro have to be there? What does it do? Why can it function effectively as a mediating element between guests and hosts? The answer to these questions lies in the myth about the origin of feasting (model 2). This myth tells the Orokaiva that if they have a big heap of taro at a feast, they *can* have effective social exchange between hosts and guest. The myth also tells them that this heap of taro is essential. The starting mechanism thus provided by the myth for the social relationship is essentially a magical one. It is a magical code rather than a moral norm, even though it has become institutionalised almost like a norm. Of course, the starting mechanism, like all magic, can fail on occasion. But unless the magic is used, there can never be social relations.

REFERENCES

1 For location of Hamburata, see Fig. 10.

2 After writing this chapter, I found that Sahlins has also been interested in Hobbes' social philosophy as in some way anticipating contemporary ideas about primitive exchange ('Philosophie politique de l' "Essai sur le don" ', 1968). Especially close to Mauss' thought is Hobbes 'Fourth Law of Nature – Gratitude' (*Leviathan*, Part I, Ch. XIV).

A [See Category 574, p. 59--Analyst]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IV

THE EXCHANGE SYSTEM AND THE NEW AGE

1. *Cultural Changes*

Many significant changes have occurred in Orokaiva society since European contact. The introduction of cash cropping has made the Orokaiva, to some extent, into a peasantry, depending to a limited degree on monetised marketing. Furthermore, there has been a large amount of labour migration, mostly by male workers whose families stay behind in villages. Even in the villages, technological innovations have been influential in raising productivity and improving standards of living, while sharply reducing the game population. People have become accustomed to the existence of a specialised political authority, wielded by Australians but supported and assisted by Papuan functionaries. Inter-village and inter-tribal warfare has been effectively suppressed. The Orokaiva give at least nominal allegiance to Christianity, and thus to the principle of obedience to an omnipotent god.

These changes have profound implications for Orokaiva political philosophy. As we have seen, the Orokaiva recognised the importance of Hobbes' question: how can a man avoid a perpetual war between all and all? The answer, briefly, was that social order can be created by a system of exchange partnerships. But this was not Hobbes' own answer nor that of the Australians who now rule New Guinea. If the changes pursued by the colonial government are wholly successful, it is clear that exchange partnerships, as the basic source of social order, must become subordinate to legitimate central political authority and the modern market economy. In other words, there is what Gluckman calls a 'contradiction' (1965: 109) between Australian policy and the exchange-oriented Orokaiva social philosophy. It is possible, but cannot be predicted, that this 'contradiction' will eventually lead the Orokaiva to abandon their traditional exchange ideology. In the meantime, however, it is already clear to the Orokaiva that their world view is being seriously challenged by white wealth and power.

The effect of pressure on the exchange system is evident in many spheres. In the economic sphere, the Orokaiva still carry on most of their non-monetary transactions by the traditional system, using gift exchange between consanguines, affines and bond friends. Furthermore, gifts of money are being made along traditional lines, money being used either as a substitute for *hambo* and other valuables, or as gifts from urban migrants to country kin. On the other hand, store-bought goods are, by a general convention, excluded from the full operation of the exchange system, only a minority being distributed as gifts. The

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

> When a summons was issued by the village constable, then those magic things were put to work (to save the accused from conviction) . . .
>
> In those days men worked for a while but then stopped shifting the earth. The village constable bound them and they went to court in Kokoda. If the court thought they were lying or if they said 'I don't know,' they were taken away and the governor stopped their work. This is the tale of those men of olden days.

Although the passages quoted here are full of obscurities, the situation in which these speeches were delivered makes them worthy of careful analysis. The councillor, who was born in Torogota, had recently moved to Kongohambo, a neighbouring village built in modern style. Some families had accompanied him, but he wanted Torogota village to be abandoned altogether and the whole population transferred to Kongohambo. In his first speech, he gave reasons with which he hoped to persuade his people. We are thus given a glimpse of the social philosophy of his listeners. Although the latter had no intention of leaving Torogota, they did share the basic sentiments to which the councillor appealed. They agreed communal ownership of land was no longer quite fashionable, the village was getting too old, too much land was lying idle, it was bad for labourers to be unreliable, it was bad to kill wayfarers like dogs. They desired to emulate the feats of their ancestors and they knew this could no longer be done by raiding neighbouring villages. This traditional road to renown is no longer open; obviously, new roads have to be found.

The main burden of the councillor's speech was that his people had not found these new roads to power: *ivo ambupu-ta ahihijera*. (Strong ancestors have reared feeble descendants.) *Ivo* (strength, power) is a basic concept in Orokaiva thought, and is somewhat similar to the Polynesian concept *mana*. It is the quality that enables man to be successful in 'ways with which ordinary technique cannot cope' (Firth 1967: 191). It is transmitted to a man by his father at the time of conception, and is augmented by the fact of success, and particularly by the killing of an animal or an enemy, the eating of meat, or the making of gifts. Bohuka, the ancestor of the councillor's lineage, and his companions, undoubtedly had *ivo* which was augmented by their conquests, but his descendants who inherited this *ivo* stood to lose it unless they themselves achieved something of commensurate importance. The Orokaiva, unlike the Tikopia, do not think of this magical efficacy as being essentially an attribute of chiefs or leaders, though men of influence do have *ivo* to an exceptional degree. In the terms of the theory developed in the present work, *ivo* is always an object of exchange, received from an exchange partner, often in the form of meat, as will be shown in Chapter VII. The ultimate source of *ivo*, however, are *dema* figures such as Totoima and Pekuma who first gave *ivo* to man.

The councillor's second speech is one of several pieces of evidence that lead me to suggest that the Orokaiva regard Jesus Christ as a *dema* figure and a powerful source of *ivo*. A Papuan pastor was the first to put this idea to me when we discussed an Orokaiva dance performed at his Church during the Christmas service. The dancers, dressed in traditional garb and beating drums, filing in a wide circle past the cross erected on the mission station, sang a traditional chant originally performed after a victim had been killed in a cannibal raid. The pastor drew my attention to the similarity between the killing of such

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

dismissed by a seeker of ancient lore, but contained some myths of obviously recent vintage which helped me to understand contemporary Orokaiva thought. I was told that before the Europeans came, the Orokaiva used to make only very small gardens. They were in constant danger of starvation and depended greatly on wild fruit. I copied the names of these, but was told that many of them were never eaten nowadays. (Many are inedible.) In those days, people did not make feasts as they did not grow enough food. The large gardens people have at the present time were introduced only when the Europeans brought steel axes and knives.

In other villages I was told similar stories about a primordial state of wretchedness when people cultivated no taro but ate wild fruit now considered inedible. But this period ended when the *dema* introduced the elements of traditional Orokaiva culture. In Hohorita, culture history had become foreshortened. Other Orokaiva distinguished the traditional *dema* stories which occurred in the dim past from the stories concerning the arrival of the Europeans; they recognised in fact *two* periods of fundamental change: one ancient and complete, the other recent and incomplete. In Hohorita tradition, these two periods have to some extent become fused. The premature death of men born between, say, 1890 and 1910 deprived the men of today of any factual knowledge of the coming of the European: it has already been turned into myth and placed, so to speak, *in illo tempore*. But this unusual development only emphasises how closely the gifts of European culture are identified with those of traditional *dema*.

The chairman of the Higaturu Local Government Council, who also happened to live at Hohorita, had long conversations with me about the constitution and activities of the council. On one occasion I wished to discover to what extent the council had been set up in response to popular aspirations and to what extent the councillors (as opposed to the Australian adviser) made decisions on basic policy. Answer: because the government had a council at Rabaul, it decided to have one in the Northern District as well. Did the people want the council? They had been given schools; they had been given coffee to market. They therefore thought the council would also be good. Would it not be better for the people to decide for themselves how their problems should be solved instead of leaving all decision-making to the government? The council did not come from ourselves but from the administration. We do not know about the council. It belongs to the administration and it was given to the village people.

The Department of District Administration had recommended this informant to me as being the most knowledgeable in the district on the subject of the council. I found his knowledge of the facts to be most accurate, and at council meetings he was the only man who dared to argue with the advisory officer. But when I questioned him on the level of social philosophy, he fell back on the standard Orokaiva explanation: power and strength come to us not from things we have invented or made ourselves, but from things that have been given to us by our exchange partners. This is precisely what Councillor Ase said: if the Orokaiva of today desires to have an *ivo* equal to that of his ancestors, he has to follow the instructions of the council, i.e. to build a new village, grow coffee, individualise land titles. This, at the present time, is his best available source of power and strength. In other words, it is not a matter of villagers independently

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

829 Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
[123] Christ, or are there other *dema* figures as well to whom these gifts are ascribed? Who would they be? This is a hard subject for a white anthropologist to inquire into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

461 An employer of Papuan labour is interested chiefly in obtaining the
466 compliance of his workers by the payment of money. Usually he is not at all
829 interested in social exchange, but in a contract whereby he acquires the total
437 work output of the worker for the period he is on the job. The Orokaiva,
177 however, regards all the work he does as part of a social relationship with the person for whom he works. First of all, he expects that person to feed him while he is working. This is because he has been prevented by the person he is helping from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
437 Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
177 *l'individualité du donateur.*' It rests on a notion that both worker and

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

177 these two sacraments became pivotal, while the rest of Church life, however
797 deeply experienced, seems to be a supplementary benefit. I am speaking, be it understood, of a group of rather recent converts.

553 When I asked informants why they had joined the Church I was given one
551 invariable answer: 'to receive a new name.' The meaning of this is clear and
797 unequivocal, and follows from information already published by Williams (1930: 97, 175–7). An Orokaiva, under the traditional system, might have three types of name: (1) a 'name proper' (*javo be*) taken from a stock of names used by his father's or mother's patrilineage and conferred at birth; (2) one or more nicknames (*javo isapa*) which may be acquired at any age; (3) assumption by the slayer of the name of the slain. Williams reported that there was also a common habit of bestowing the victim's name upon the child of the slayer. The name of the slain is adopted as a distinction, and as a means of acquiring the latter's *ivo*. Baptismal names fall within this third category, for what the Orokaiva regards as obvious reasons.

First of all, baptismal names are never Orokaiva names, but are chosen from a large stock known to servants of the Church. Some are recondite names (Cephas, Stanislaus, Gemima), other are a combination of the Christian and surnames of missionaries (Dick Stafford, Nancy White). All these names, used by the mission for baptismal purposes, are reasonably regarded as names belonging to Jesus Christ. Now, Christ was slain by His enemies. After His death, those who adopted one of His names were saved and obtained great wealth and power.
[778] White men are powerful because they obtained the *ivo* of this slain Man. The mission gave Orokaiva the opportunity to acquire one of these names too, if they obeyed its rules. Thus a baptismal name fulfils the same function as was fulfilled by the adoption of the name of the slain. *Ivo* can now be obtained without the need to kill a human victim; in fact, it has now become not only useless but evil to kill people in order to assume their names. The baptismal name has taken their place.

An important parallel between the two kinds of name is that a person cannot confer either upon himself. This can be done only after a person has gone through rituals of purification by a man of great purity and renown. The eating of the body of the slain can confer *ivo* only if this communion food is a gift from some other person; similarly, bread and wine are spiritually potent only if given by a priest in a proper ritual. I have already pointed out the similarity perceived by Orokaiva between communion and the traditional rite of eating slain victims. Communion may be called the culminating ritual of the *iji eha* when Jesus Christ fully becomes the celebrant's spiritual ancestor, much in the manner of Totoima, and with similar potent effects.

797 This sketch is not at all intended as a criticism of the mission. On the
177 contrary, time probably has to pass before the Orokaiva can move from their present identification with the Church to the internalisation of its values. And it has been argued (e.g. Kelman 1962) that identification is often a necessary preliminary of change. Even the degree of change described here has been by no means easy to achieve. The ideology of the *iji eha* which underlies the present acceptance of socio-economic programmes as well as of Christianity, was long
[829] resisted by Orokaiva, even after the Second World War. A premise of this acceptance has been a growing opinion that the Western world order was indeed

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

so formidable and irresistible as to leave open no other option. For many Orokaiva, this became a certainty only as a result of what to us would seem an entirely unconnected event, namely the Mount Lamington eruption of 1951. The effect of this eruption on Orokaiva ideology is worth a brief analysis here because it provides evidence that the 'new day' ideology is still essentially based on the traditional exchange-oriented Orokaiva philosophy. We find that the cataclysm was universally ascribed by the Orokaiva to the breakdown in an exchange relationship with some *dema*, and that many believed this *dema* to have been the Christian God. On the basis of this theory, the Orokaiva were led to search for more effective mediating links between themselves and these powers, so as to avoid similar misfortunes in the future. Development activity and baptism were the most important of the mediating elements in which they placed their faith.

As I have already published a full survey of Orokaiva explanations of the eruption (Schwimmer 1969), my summary here will be brief. In 1966, during visits to Inonda, Hohorita and Sivepe, I interviewed a number of survivors about the explanation of the disaster given by people *at the time it occurred*. All informants were agreed that at that time the increasing rumbling in the mountain, the tremors, the smoke issuing from the crater, the showers of ash, the emission of stones and fiery particles, and finally the Peléan eruption, were all ascribed to the anger[6] of Sumbiripa, the god of the mountain, though there were varying explanations of the probable cause of that anger. These statements tallied with published evidence from two clergymen, both present in the Northern District at the time of the eruption, who refer to the people's fear of the anger of Sumbiripa (Tomlin 1951, Benson 1955).

Evidence of a different kind comes from two anthropologists (Belshaw 1951, Keesing 1953) both of whom interviewed survivors a few weeks after the disaster. Belshaw summarises Orokaiva explanations as follows:

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. (Others again mentioned) lack of co-operation in Mission and Government plans for development. (1951: 242)

Keesing agrees with this summary, adding that the eruption resulted in 'strong feelings of insecurity and even of guilt in their retrospective look at the pre-eruption way of life'.

Many resident Europeans, including the Bishop of New Guinea, the Most Rev. David Hand, confirmed Belshaw's and Keesing's account, but the Bishop told me that the mission has since discouraged the Orokaiva from thinking that the Christian God harboured anger against them and expressed it with such indiscriminate violence.[7] Hence this explanation is no longer heard. People nowadays believe that the eruption was caused by the anger of Sumbiripa or, if they wish to display a modern scientific attitude, they will repeat what they have been told about vulcanology.

Explanations based on the anger of Sumbiripa, the government and the Christian God resemble each other in that they are all based on the concept of a

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

lies neither in communion nor in expiation, as they are essentially magical devices to bring about a transformation in social relations with a partner.[1]

While this partner may on occasion be a close kinsman who is given a feast for some special reason, he often has a rather distant position in the exchange network of the donor, with whom commensality occurs only on rare occasions. Not only do feasts tend to extend in this way the range of individual social networks but they are especially apt to extend the range of social relations existing between villages. Feasts are often given by one village to another, thus leading to the establishment of at least one partnership between each household of the host village and each household of the guest village.

The explanation of pig sacrifices requires an elaboration of my model of exchange. The models used so far may be called *transactional*. One may distinguish between positive transactional cycles (in which the two sides exchange benefits mediated by gifts) and negative transactional cycles (in which the two sides exchange sanctions mediated by penalties). In addition one may construct *temporal* cycles, which may show the alternation between friendship and anger, offence and repentance, mortification and forgiveness. A violation of the exchange code will shift a relationship from a positive into a negative transactional cycle, while a reconciliation feast will restore positive reciprocity. The value of pig sacrifices lies in their power to set a relationship upon a course of positive exchanges where, previous to the sacrifice, the two sides were engaged in a mutually injurious exchange of sanctions.

This implies an assumption about the nature of social relations: namely that they cannot be described as intrinsically positive or negative. One cannot divide the Orokaiva social universe into concentric circles distinguishing between permanently friendly and permanently hostile groups. The most one may do (if one has data over a sufficient period) is to show that in the association between villages A and B the cycles of negative reciprocity have been relatively short while between villages A and C they have been relatively long. In this sense one may call B a 'friendly' and C a 'hostile' village, and it may be expected that inter-village feasts, in which pig sacrifices figure, will be more frequent between A and B than between A and C.

This conceptualisation is not based on my own private theory of sociality, but on the Orokaiva expressed belief that strife is a 'natural', i.e. *dema* established consequence of social relations. This belief implies that any relationship will tend to alternate between positive and negative cycles, primary kin relationships not excepted. In *original time*, we find only positive cycles of reciprocity; strife periodically engenders negative cycles, while pig sacrifices lead to the periodic restoration of positive reciprocity.

2. *The Wild Pig: Marauder*

To the Orokaiva the wild pig is above all a troublesome enemy, as it attacks taro crops in gardens and is liable to kill an unwary hunter. It lives in the jungle where it is believed that ghosts (*sovai*) may enter its body. A pig inhabited by a *sovai* is especially dangerous and harmful to man. The ontology of the pig is explained in a series of myths of which the following, recorded by Williams, states its message most clearly:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

killed and eaten and is remembered as the demigod who made these gifts to mankind. When such gifts are made today it would seem that the donor is symbolically sacrificing himself to the recipients. The custom of giving clothes and cooking pots goes back to a myth where a woman is described as living alone and naked and without fire, so that she had to prepare her food by letting the sun burn it. Two men came, gave her a skirt, brought her fire and thus acted as her deliverers. These gifts, far from being 'equivalent' to a woman, are male gifts *for* a woman, and emphasise the blessings of the cultural institution of marriage. On the significance of ornaments as part of a wedding gift I am less certain, but the evidence suggests that they are pledges. They are objects of great magical power, the mere possession of which is thought to demonstrate that their owner adheres to moral principles. The gift of such objects to another party demonstrates that the donor possesses such moral objects, pledges that he will show propriety in his behaviour towards the recipient and enjoins the recipient to do the same for him.

In combination, the *dorobu* gifts convey a clear and appropriate message: the wife-taker acknowledges his indebtedness, emphasises that by taking a woman in marriage he conveys a great blessing upon her and makes pledges which ideally are binding on both parties. Acceptance of these gifts need imply no more than that the wife-givers acquiesce in the *status quo* (which has been established by abduction or elopement). Until the affines make counter gifts, *dorobu* does not even establish social relations between the two sides. This does not happen until the bridegroom's sister has bred and given a pig to him and until the bride's mother has bred and given a pig to her son-in-law. It is only then that a limited commensality between the two sides is established: they have a meal together at which the *imbohi* pretends to eat.

The continuing avoidances and dangers characteristic of Orokaiva affinal relations are all of a kind very familiar in other parts of the world, but the less usual feature is that joking relations, coldness and deliberate social distance can be terminated by the cancellation of the debt through exchange marriage. The strife of 'ordinary' affinal relations is seen as part of a longer cycle which stretches from the sister exchange marriage established as ideal by the ancestors to exchange marriages that remain present as a constant possibility.

9. *Application of the Model to Clan Formation*

The model of marriage exchange as presented here envisages the permanent cyclical recurrence, in the history of any given social group, of restricted and generalised exchange, or – as one might say – of a state of matrimonial amity and strife, unity and division. This model is given additional credibility if we consider some Orokaiva theories about social relations and if we consider the processes of clan formation.

On social philosophy only a very brief reference is appropriate here. The Orokaiva believe that due to actions of their primal ancestors, men are in permanent strife with one another and for that reason dwell apart in separate villages. They express this belief quite explicitly when explaining some of their own myths. I have described above (Chapter III) an Orokaiva myth on the origin

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

of feasts, explaining why there is a rule that feasts may be held only when it is ritually established that food will be plentiful.

Discussion of this myth made it clear that the feast is regarded as a purely temporary interruption of the state of strife, but that it can restore a temporary harmony if ritual is properly observed. The feast-givers must have an abundance of food; they must give everything they have to their guests. Their ancestors will then bless them; their enemies will remove evil spells from their lands, and their gardens will greatly prosper afterwards.

At a feast the Orokaiva became ritually and spiritually identified with their primal ancestors and re-enact the peace and harmony that existed in original time before strife began. It was, however, the traditional belief that such a state could not be expected to last; that after the feast strife would re-assert itself. The myth instructed man to hold feasts 'from time to time', the interval between one feast and another being characterised by food shortage and warfare. Peace was not considered to be a possible permanent state, though my informants remarked that since the coming of the white man it had become so.

We find a similar cyclical pattern in the marriage practices of social groups. Let us take as the commencement of the cycle a crisis such as a military defeat or serious quarrel which leads a fragment of a social group to separate, move some distance away and establish a new settlement. Such a group will usually begin to intermarry with new groups using devices such as abduction and elopement. Gradually, they will set up a number of reciprocal arrangements with groups in the vicinity. When relations with reciprocating groups become very close, the time will come, usually after two or three generations, when marriages between these groups become impossible under the rules. At this point the former affines have all been turned into notional consanguines. Unless the two sides quarrel (which is not infrequent), the stage is now set for clan fusion.

It could be demonstrated, from a detailed analysis of Sivepe marriages, that the composition of both the Seho and the Jegase local clan groups may be explained by this process. Three of the four 'lineages' of which the Jegase group is composed have migrated to Sivepe since the beginning of the century. One of the waves of migrants already bore the clan name Jegase when they lived at Kiorota, their village of origin. The other two groups assumed it quite recently, after more than two generations of residence and intermarriage. Seho was welded together a good deal earlier than Jegase, so that the lineages are no longer commonly distinguished by name, and the ideology of common agnatic origin is far more firmly established. Seho must, however, have had four lineages at one time and I was able to establish the village of origin of three of them, as well as numerous intermarriages with the Seho of Sivepe after arrival. Intermarriage seems to have become more difficult between these Seho lineages about fifty years ago, and fusion must have been complete by 1925. A marriage between two Seho lineages arranged around 1935 was the last, and caused much annoyance though there was no common *hae*.

I am not suggesting that the process described here explains all Orokaiva clan fusions, but only that the marriage system does in fact turn groups of affines into consanguines and that these consanguines if they live close together tend to assume a common clan name. The importance of this process for the study of kinship structure lies in the fact that it is explicable neither by rules of restricted

Chapter 1

Introduction

There is no local consensus as to which peoples in the Northern District should be regarded as Orokaiva (see Williams 1930:1-4), but all the peoples concerned recognize that they have a relatively uniform culture and speak mutually intelligible dialects of one language. The people in this culture area number at least 25,000.

Although they did not have an inclusive name for themselves until 'Orokaiva' was introduced by Europeans, they generally drew the distinctions among themselves between river people, salt water people, and inland people (umo-ke, eva'embo and periho). There are wide-spread traditional beliefs dealing with the common origins not only of these different categories of people, but also of mutually hostile tribes, the largest political units among them, and of the various dialectal groupings and local cultural variants, which correspond to a limited extent with the political division into tribes.[1]

Our study of Sivepe was designed to complement a study of land, work and productivity at Inonda village (Crocombe and Hogbin 1963) and other related studies in the area (Dakeyne 1965; Howlett 1965; Crocombe 1964; and Cheetham). We attempt no general comparison with the results of the other studies at this stage.

Because land tenure problems were central to our investigations, the groups at Inonda and Sivepe were chosen from villages in the Higaturu Native Local Government Council area which is occupied by about 12,000 of the Orokaiva. In 1956 this council adopted a scheme to register individual title to parcels of land which would be allocated by land-holding groups to individual members for use as cash-crop gardens. The scheme had encountered several

[1] See Williams 1930:155; W.47, 140, 148; 0.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... 0.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

that studied at Inonda - was the relationship between localized landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close kinsmen dependent on him (see Genealogy on p.52 for links between households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

Our observations at Sivepe were supplemented by less systematic interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

[3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

Chapter 3

Land tenure and social structure

a. The tribe and clan as territorial or political units

128 This section outlines the range of wider common territorial interests and concerted political action among traditional [614] groupings. Clans are the largest units in which membership is [619] determined by patrilineal filiation as distinct from the local allegiance underlying membership of the tribe, and of the 'district', village, etc., into which the tribe may be divided.

619 The tribe is the largest unit which has a common territory (Williams 1930:156-7). This is usually isolated from neighbouring tribal territories by a belt of uninhabited country and its occupants would speak of it as 'one ground', pusu tahavo. The territories of groups of various orders of inclusiveness within the tribe are also described in this way (see Williams 0.364; 1930:157).

●[829] Members of a group of any of these levels might consider themselves as toho, 'countrymen' (see Williams 1930:166; 0.100, 364). In another context a group would consider others in the same tribe as kitoho (outsiders, aliens). All members of the tribe shared common enmities so that at times they would regard themselves as toho whereas neighbouring tribes were always considered kitoho.[1]

[578] There were customary restrictions upon feuding within the tribe. As Williams (1930:309 ff.) points out, this political unit is the largest group with its own intragroup morality, in this case [266] sharply distinguished from the standard forms of hostility between [721] tribes. Aggression against members of another tribe took the form of organized, often cannibalistic raids (isoro).

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[1] Williams (1930:160) mentions exceptions where 'friendship or affinity between certain tribes allowed the use of the former word' (toho), but 'tribes...normally stand in the mutual relation of Kitohu' (sic) (ibid: 170; see also 0.100, 364).

101 Beaver (1915: Appendices 3 and 4) speak of the Jegasa-Sarua (or Jigasa or Jegasa-Sarana) and of the Atibi Guma (or Atibeguma) as tribes but are inconsistent in locating them in relation to their neighbours.

Since 'Wasida' people were allied with Sangara groups in fighting their neighbours to the north (the Divinikovari, Togahau, etc.), Williams' only grounds for treating the 'Wasida' as members of the same tribe as the Hunjovarehu and as opposed to other neighbours, including the Sangara[1] is the precedent sent by Chinnery and Beaver (1915:48) who claimed that their map of linguistic areas 'will show with tolerable clearness the various groups of tribes'; although Williams claims that 'the ultimate bases of the tribal division are political and economic' (1925:406), he states that his classification is based on their list of linguistic differences (1930:5) and follows them 1930:150 and end map; 0.9) in placing Divinikovari in the 'Wasida' area; he himself adds (ibid.) that this language classification 'apparently does not coincide with the tribal classification' since the Divinikovari (i.e., Hunjovarehu) and 'Wasida' are of different tribes.

Belshaw (1951:2) and Plant (1951: Appendix 4) prefer 'Periho' to 'Wasida' as a tribal name. The local people agree at least that 'Wasida' is inaccurate because it is really the name of a village[2] and may refer only to its inhabitants, or sometimes also to its immediate neighbours - just as Sivepe villagers may be called Avala people after the nearby village of that name; this identification with a named group of villages or 'hamlet group' seems to be weaker than it was even a decade ago.

[829] On the other hand 'Periho' (alternatively 'Berepo') is a general term for 'bush', that is inland peoples,[3] used by those closer to the coast (usually to the east) and is applied by them indiscriminantly to several tribes - at times to the Sangara (Williams 1930:6; 0.410). The Sivepe people are sometimes spoken of as the 'Kombu Periho' (kombu, from or of, a mountain or height);[4] they prefer to use the term 'Kombu Sangara' when referring to themselves and other Orokaiva from the slopes of Mt Lamington.

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[1] Plant (1951: Appendix 4) also argues against this.

[2] Williams was aware of this (W.10) although he usually chose to retain the European-introduced usage, sometimes referring thus, as with 'Jegasi-Sarahu', to the tribe as he saw it and sometimes to the group of villages in the tribe.

[825] [3] One meaning of 'periho' is a small wild pig from the bush.

[4] This is applicable a priori to the Sangara.

[p. 106 is blank]

Security of tenure

423 It is often suggested that the main benefit from tenure conver-
241 sion is the provision of security of tenure for villagers who wish
to plant cash crops. The Ombi-Tara people, however, did not con-
[182] sider security of tenure as a major benefit of conversion. They
[829] explained that each man had previously held individual rights to
land which were sufficiently secure for him to plant cocoa and
coffee. A man could plant such cash crops without consulting the
clan leader or other members of his clan, and without others
disputing ownership of the crop or distribution of the proceeds.
[578] Fourteen people did mention that conversion and the introduction
of cement and wooden corner pegs would help to prevent disputes;
but they felt the disputes to have been caused by the previous
small size of individual plots which sometimes made it difficult
for a man to extend his planting (because he would be encroaching
on another's land); and to vagueness of boundary lines. Some also
referred to the need to clearly mark out land boundaries to fore-
stall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 Most Ombi-Tara people saw consolidation of their previously
311 scattered holdings as the main benefit from tenure conversion.[2]
361 Many people drew finger diagrams on the ground to explain how
[829] conversion led to consolidation. Under the traditional tenure
system cash cropping involved long walks from village to food
gardens and to cash crops.[3] Consolidation not only reduces walk-
ing time, but also allows an individual to undertake large-scale
planting in a single area. He was previously unable to do this
because of the small amount of land he held in each plot, and in
some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with
476 little assistance, often in a relatively inaccessible area. Since conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the new tenure system. Interclan co-operation is seen in the leader
182 of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over
186 Papua-New Guinea') should know of their experiment. When two Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 been at Ombi-Tara, in favour of briefer parties which distract less
423 from market oriented activities.[1]

182 There was verbal evidence at Ombi-Tara of further rejection of
[829] old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622] Leadership in the traditional societies of Papua-New Guinea is
[554] generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It
[614] was decided by the members of the Mumu clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

[621] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to consider-
[556] ably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

[614] The functions of the clan leader are little changed by the new
[627] tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

571 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

21: Belshaw E-5 (1951) 1951 QJ23 Orokaiva QJ23
Mount Lamington

discussion as to the best method of undertaking community development to meet the desires of these people. Such desires of course cannot be taken for granted, and indeed the pre-eruption history of the people led many to believe that the time is not appropriate. Certainly any grandiose schemes must wait until the people are relieved of pressing immediate worries. But at the same time there seems to be a genuine change of heart. It is true that this change of heart is accompanied by a feeling of guilt, as I have pointed out before. Yet it would be folly to ignore it.

I obtained many statements of the hopes of these people for the future. Some of them were clearly stimulated by experiences in the refugee camps. All of them contrasted their hopes for the future with their experiences of the past. Here are some that were given to me in the Popota, Hagenahambo area:

"Our lack of progress is the European's fault for not teaching us better." (This point of view was very much in the minority.)

"We get knowledge from school, but we are race people. The European taught us very well, but it is hard for us to learn because of our race. All people say there is one name in Papua, but some go their own way. Australians learn just the same but they are superior because they pull together."

"We want the white man to come and teach us, but no one teaches the Papuan very good. How can we give white people good food or furniture, because we're not taught properly? But this time the Government helps us with food. It is time for us now to try hard to learn. We want natives and white man like one family. We were very bad when the volcano blew up. But now we want to help. We want to give what we can and we want to start a new life for ourselves."

How do the people conceive of this new life? In the first place, it is to take place in a new environment, particularly with new villages and new roads as escape routes in case of a renewal of volcanic activity and as an outlet for produce. In the second place, it is to be related to the "Co-operative"; and this concept of the "Co-operative" requires a great deal of explanation.

Examination of files and interviews with the people show that the history of co-operation in the area covers the whole period following the expulsion of the Japanese[3]. It originally formed an extension of the Christian Co-operative Evangelist movement founded by the Anglican Mission, which appears to be successful in the Gona and other areas. The movement spread to the Kokoda sub-district, and to the intervening Periho group, by means of propagation by Mission teachers. Its first appearance in the Kokoda area caused some consternation in administrative circles, as the unauthorized collection of money always causes alarm. A most interesting report[4] was written by the Assistant District Officer, as a result of which

[3] "In addition to the co-operatives, numerous native commercial activities were begun by the Administration before the war. These included the compulsory planting of rubber, the trees now being tapped under contract to a European planter, and the native-owned but Administration-managed coffee plantations, of which only Sangara has recently been worked."

[4] Memo. Mr. Yeoman to District Officer September 7, 1949. "Co-operative Rumours Kokoda Sub-District."

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two
657 medical assistants, two nurses, two government teachers, one agricultural expert and the others administration workers, mission workers, etc. Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole European staff, including himself, to attend the daily religious services, "to show the people we were with them." Food distributions were made daily through the village constables, blankets and medical supplies were available as needed, adult education classes were almost daily organised for both men and women, the agricultural officer demonstrated techniques and supervised the gardening programme, the Isivita people from Oro Bay were brought over to reunite families, and Kaad himself began to speak in favour of economic development in the future. Even such a bald summary indicates a far more intensive contact with Europeans at Ilimo than the Orokaiva generally experienced either before or since.

● [429] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily see that Orokaiva fears of land alienation were wholly unfounded but, on the basis of their knowledge, the Orokaiva reasoned perfectly logically.
[431] First of all, it is regular Orokaiva custom, when one makes gifts, to have in mind a claim one wishes to make for a return gift. Thus,
[423] having accepted Australian gifts, the Orokaiva were naturally anxious to find out what would be demanded in return. Furthermore, the fear that the Australians might demand land which was unoccupied and uncultivated was based on past experience and on provisions actually on the Statute Book (Native Plantation Ordinance 1925-1934, repealed in 1960). According to this ordinance, land could be alienated where there appears to be no owner and also for the purpose of "technical education of natives in agriculture." It is a matter of historical fact that the Australians acquired some choice land in the Orokaiva district under these provisions prior to the second world war. (Information: P. Sebire.)

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
423 that these reasons lie principally in Western notions of government responsibility for victims of disasters and other values of Western Civilisation, restraining cupidity, and held more strongly that the Orokaiva, on the basis of their information, could have taken for granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva even today are extremely familiar with the provisions of this old ordinance, and that they still fear it, even though it has been repealed some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
659 confidence in Australian intentions. Mr. Kaad stated to me that
731 the main ultimate purpose of the camp administration was to teach new skills and a new way of life. Under camp conditions, there was a good opportunity to teach these new skills and put forward new ideas, but the real opportunity, he said, came later in the resettlement villages. The people at Ilimo had their world shattered and were still recovering from the shock. For that reason they could not absorb as much of what they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
657 new hospital was then being built and where an administrative centre was also established. (Only the Agriculture Department still operates from there today.) He attempted to develop further the new ideology he had been putting forward by contacts with the resettlement villages of Agenahambo, Koipa, Awala, Waseta, Kongohambo and Mumuni. He continued his educational, agricultural and medical programmes for some months in these villages, but he was not able to stay long. From the viewpoint of today, these programmes cannot be seen as marking a permanent change in the pattern of Orokaiva-European contacts. It would be more correct to say that the European soon became as remote as before but that the ideas promoted at Ilimo and by Mr. Kaad were later taken up by the people in the framework of organisations where direct contact with Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have seen, they do not classify them according to the organisational role they fulfill. I also found that ethnic origin of white people is usually not a basis upon which Orokaiva will classify them. There is, however, a more esoteric basis of classification which I encountered on a number of occasions.

829 It is well known that in many parts of Melanesia, there is a
769 belief in the return of ancestors, whose skins are white, and who bring wealth and a happier dispensation to their Melanesian descendants. The Orokaiva do not appear to look upon every white man they see as a

829 returned ancestor, but have principles for distinguishing between
769 those who are and those who are not ancestors. A territorial distinction that was suggested to me was that the Northern Hemisphere is generally regarded as inhabited by spirits and ancestors. (It was an educated informant who suggested this.) Some Papuans who went to England for the Queen's coronation could not believe that the buildings, the elevators, etc., had been built by ordinary men. A parcel of clothing, taken from England by a visitor was thought of as a gift from the ancestors.

Israel, Egypt, the Red Sea and other places mentioned in the Bible are especially so regarded. One example of the sacredness ascribed to these places was evident in the reception given to a popular missionary in the Kokoda district who returned to his parish after a visit to the Holy Land. The festivities with which he was received were very much out of the ordinary, and I was told this was because the ancestors had gone to these places.

In accordance with the usual Melanesian pattern, Australia, being the country exercising political and commercial control, was excluded from the vague area to which the ancestors had supposedly gone. On the other hand, New Zealand was not necessarily regarded in the same way as Australia. A young New Zealand geographer who paid a brief visit to Mumuni (in the Sasembata district) and to myself at Sivepe had been showered with gifts and one man had pressed money upon him which he was asked to invest in New Zealand, in which case it was expected to multiply a thousandfold. The young man was prudent enough
123 to decline the offer. I do not quite know how my wife and I were
829 regarded in Sivepe, but there was evidence that the surrounding villages
769 likewise regarded us as returned ancestors; I was once drawn into a discussion with a branch of the Jegase clan group at Kiorota, four hours' walking from Sivepe, where it was known that we were living closely with the Jegase clan group. I was asked point-blank whether I belonged to the Jegase clan; later, the Sivepe people told me what the meaning of this question had been. It would seem that this identification with returned ancestors was due less to our geographical provenance than to the type of relationships we had developed with Orokaiva people; both the geographer and we were living in villages, eating with the people and sharing with them; my wife was gardening; our behaviour was not that of the taupa. To this point I shall return.

177 It must be due to reasoning of this sort that Americans were
829 placed definitely in the category of returned ancestors. I was told
769 they were very different from other taupa (or rather, they were not really taupa at all). The American forces, it will be remembered, fought the Japanese at the Kokoda Trail and drove them out of the Northern District in 1942-1943. Both they, and the Australian troops accompanying them, maintained friendly relations with the Orokaiva who helped them in various ways, supplied them with whatever food they had in return, received very generous gifts. The American soldiers ate with the Orokaiva, which Australian officials hardly ever do, and

177 fraternised with them. In fact, the friendly atmosphere created by
829 both the American and Australian troops during the war gave the Orokaiva
769 a different view of Europeans than they had before and must have greatly assisted the acceptance of the economic development ideology and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the Vietnam war and we discussed it a few times. The reaction was strange:
[207] it was a great pity that those American boys were being killed in
[191] Vietnam, because they were wonderful people. There was distinct disappointment that the Americans had decided to go to Vietnam instead of returning to Papua-New Guinea. Some jealousy was felt towards the Vietnamese who had now been thus favoured. I tried to assuage the disappointment felt by my informants by summarising some facts from the Manchester Guardian Weekly, my only source of knowledge at the time, but I could see that the convictions of the Orokaiva on this point were unshakable; they knew some things about the Americans which I was (or pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
[198] change since the war. The question that we need to investigate here is the extent to which the eruption experience affected this long-term change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
128 over the last few decades; secondly, to place the data we have on the period immediately following the disaster in the framework of this general development.

829 Like other peoples I have personally studied (the New Zealand Maori and the Canadian Indian), the Orokaiva have been the recipients of a barrage of propaganda on the part of missionaries and government officials, who were critical of Orokaiva material standards, social customs and religious beliefs. They also supplied severe sanctions against those who did not change their material standards and customs while considerable inducements were held out to those who would. The Maori and the Blood Indians, while complying on the whole with the demands of the whites, at the same time retained a strong belief in the greatness and, often also, the superiority of their old customs. I was therefore surprised that the Orokaiva had nothing good to say about their own past, representing it as a nightmare from which they were glad to have escaped, while the teachings of the Europeans as well as their goods, provided an opportunity--the only known opportunity--for vast improvement.

829 (from the dark ages into a great future) was put on specially for
173 my benefit. When I found Orokaiva were talking to each other in precisely the same terms, I thought that this view was held perhaps principally by persons with a vested interest, such as councillors, committee, etc. However, as I stayed longer, and became somewhat more trusted, I could still find no trace of nostalgia for customs that had been abandoned. I did, of course, become aware of the deep attachment the Orokaiva have for those of their traditional customs which they still practise, and values which they still hold.

I shall quote in detail one document, a tape recorded speech
[124] made by a councillor in the Orokaiva language, which is typical of the
[126] present Christian Orokaiva self-group image. I have a number of others, consistent with this one in essence, though differing in some details to which I shall draw attention. Though Councillor Colin's speech was specially made up to be recorded by me on tape, during a session when several other recordings were made, its general tenor was no different from the speeches he interminably made at other times. The only slant that may have been unusual was the extent to which he referred to past history. I had asked, on this occasion for stories of olden times (iji matu). The councillor started with a brief sketch of the wars of his forebears; he stressed that he and his listeners were the descendants of strong fighting men who killed wayfarers as though they were dogs, and who conquered the lands of others. "Now, there is a new day, and therefore we must be united." Later, the councillor described, for my benefit, some of the traditional magic. But, he said, people did not get paid jobs, but Jesus Christ (first) gave jobs for people to take. The village constable would drag them to Kokoda in chains for having told lies, and the magicians would be put to work to stop them from being convicted. They would be fired from their jobs for idling. Such were the old days.

[177] This story stressed the most widely accepted differences between the old and the new way of life: war vs. peace, danger vs. security, division vs. unity, magic vs. Christianity, poverty vs. wealth, simplicity vs. smartness. The councillor was, in every respect, in
[625] favour of the new and opposed to the old way. He was not actually criticising the government, when referring to the activities of the
[769] village constables; nor was he criticising the village constables. On the contrary, the village constables of the early contact period are greatly revered; their names are remembered and recited in much the same way as those of other renowned ancestors. Those who were handcuffed this is the indignity remembered above all else--were lacking in smartness they just did not know the tricks for keeping out of trouble. The village constables, as I was also told at Hohorita, were the men who brought peace, who saw that people did not continue to fight each other.

At Hohorita, I had a series of discussions, at which a number of men participated, about Orokaiva history. On a number of points, which I could check, I was given reliable information. I would therefor

accept, as genuinely held by the Hohorita people at the present time, a view of history according to which the Orokaiva had only small gardens before the Europeans introduced axes and knives; it was only then that people started to make feasts, stopped eating wild fruit, etc. Here informants credited to Europeans innovations traditionally ascribed to their own culture heroes. During the same interview, I was told the people used to build houses by making a fence and putting leaves on top. The present house types, I was told, were introduced by Europeans. It so happened that this statement was substantially correct.

From these few examples (more data of the same kind could be quoted), it is already clear that the Orokaiva perceive some resemblance between the Europeans and their own culture heroes. The Orokaiva ascribe whatever cultural goods they possess to the action of culture heroes who brought them these goods in primeval time. This applies not only to material knowledge (the making of fire, houses, clothes, the growing of crops, etc.) but also to social behaviour (institutions of warfare, marriage, feasting, etc.). The Europeans manifestly brought with them innovations of the same scope. Like the culture heroes in the myths, the Europeans have many valuable new things, but they are reluctant to give them to the Orokaiva. They prefer to keep them for themselves. Occasionally, though, they do give some of them away, or are willing to trade them, or are successfully tricked into sharing them. One of the recent gifts for which the Orokaiva are especially grateful are the Local Government Councils. I asked some of the most experienced councillors whether they were able to conduct the councils according to their own ideas or were forced to follow ideas laid down by the government. I was told that the councils came "not from ourselves but from the administration. We don't know about the council. It belongs to the administration. It was given to the village people." The council was given much in the same way as fire had been given by a culture hero.

Beneficial though the Europeans undoubtedly are, they are also perceived as exasperating and dangerous: exasperating because of their refusal to share their goods, to set up proper relationships with the people and to adopt proper customs; dangerous because of the power of the police, the prisons, and--most of all--the Christian God. It is from this viewpoint that we should regard the Orokaiva interpretation of the Mount Lamington eruption as reported by Belshaw and Keesing. Belshaw reports that most Orokaiva explanations of the eruption were religious in nature: "Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese . . . This sense of guilt is a most important factor in resettlement attitudes." (1951: 242) Keesing agrees with this summary, adding that the eruption resulted in "strong feelings of insecurity and even of guilt in their

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such
177 enterprises in the role of expert. There was one such man in Sasembata
335 village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of

[212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking

[192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

177 concepts drawn from the scene of world affairs. While among the
829 Orokaiva, I heard talk about Vietnam, Indonesia, Africa, India. The
political orientation displayed was a mild kind of nationalism, and
[203] a sense of closeness to newly independent non-white states. But the
information, derived from radio broadcasts and speeches by councillors,
introduced an acculturative kind of perspective. Its dissemination is
being actively encouraged by the Australian authorities.

465 Use of money: Before the eruption, money played a very minor role
in village life. It was earned by men who were away for limited
[464] periods working on plantations. Money wages on plantations were, and
are, extremely low; wages for agreement labour in 1962 were, for
instance, $39 per annum for the first year of which $12 is paid out
in monthly installments and the rest at the end of the year. In the
second year, the rate rose to $45.50 p.a. (Howlett, 1965) Urban wages
are a great deal higher than this; most Sivepe men who were absent
on employment worked on urban jobs. At the same time, a regular
income was derived from coffee.

464 Sivepe men were simply not interested in jobs at plantation
rates of pay, nor were they interested in "carrying" jobs for the
435 government even though wages in that case were higher. They were also
438 indifferent to selling their garden products on the Saiho and Popondetta
markets, as there were frequent gluts, prices were low and carrying
goods to market was an unduly arduous task.

436 Money was used largely to buy goods in the luxury rather than
the subsistence sphere. Money was essential for payment of taxes
511 and for a minimum of clothes, often acquired cheaply at jumble sales.
Otherwise, it was used to buy tobacco, food for feasts, kerosene
mainly used for feasting occasions, cartridges for hunting, again for
feasts. Among the larger purchases made were radios, pressure lamps,
bicycles, tools; all these, however, could never be paid for with
current income. One had to depend on special windfalls: a gift from
459 a relative in town, a bride price. Money was not only for spending,
556 however; it was also for saving. I shall refer to the organisation
of corporate saving later; in addition a number of Sivepe men had
savings, of the order of $10-$20, sometimes more, hidden away. This
money was kept for special occasions, but in addition, the very fact
of possessing it was regarded as important. I was once told that
Europeans were powerful because they had money; the Orokaiva could
get power only if they too possessed savings.

436 If money was definitely highly valued, it was only to a limited
437 extent regarded as a standard of value. If we accept some model such
as was suggested by Salisbury (1962), we may say that the Orokaiva
have three spheres of exchange: a subsistence, luxury and ritual
sphere, while bank notes are used for special, often ritual occasions.
[461] In the acquisition of luxury goods of any kind, including money, the
Orokaiva tend to weigh the benefits gained by them against their cost
in time and unpleasantness and against the benefits that can be gained
from other investments. Money is, in general, wanted only if it can

474 share to the owner of the land. This activity started some time after
177 1947 and ceased with the eruption of Mount Lamington. It involved
241 "everybody" at Pamba. At Inonda, both rice and peanuts were tried out. The rice was planted in one block, without subdivisions; it was hulled and sold at Higaturu government station, the money was distributed. There were two harvests between the time people started to grow rice and the time of the eruption, when rice was abandoned. Proceeds were 18 pounds and nine pounds; people's shares were two to three pounds each. The mission had nothing to do with the activity, but only the government, so I was told.

The evidence, limited as it is, leads one to wonder whether the rice produced by the cooperatives was really unsaleable, as Dakeyne suggests (1966: 61-62). On the other hand, there is no doubt that the mission lacked any marketing facilities and I would strongly agree with Dakeyne that the cooperative movement could never have succeeded except on the basis of cash sales for good prices. Sivepe, acting under mission influence, ate their own rice and did not attempt to sell it. When the people came back after the eruption, the rice was "spoiled," the deacon had been transferred to another station. In Inonda, the crop had likewise been "spoiled." Dakeyne reports that in 1951, the rice was attacked by a species of "army worm;" the District Agricultural Officer ordered all crops destroyed.

474 The pattern of production of the Sivepe rice resembles that
241 of the communal yam gardens. There also, several men may plant together in the garden of one of them; the users are then expected
[427] to make a gift of yams to the owner before taking away their own. If we put this strictly in contractual terms, a man leases land to others for one year for a fee. The lessees, together with the owner (who retains one section for himself), club together as a kind of working bee for the planting and harvesting (and perhaps some other operations). This traditional pattern was revived after the eruption in the establishment of coffee and rubber stands. Its significance, however, is somewhat changed if such common cultivations are carried on not for the sake of growing food for feasts (such as the yams), but for cash (as in the case of rubber and coffee and perhaps rice). When a common plot is established for cash crops (but not yams), the Sasembata district people call this a "company;" they speak of "company land"--the word "company" being a borrowed English word incorporated in Orokaiva vocabulary. This word has mildly millennial overtones: a "company" is the means by which the Orokaiva may acquire wealth equal to that of
● [829] the Europeans. It would be unfair to say, with Kleekham, that the "company" of the Orokaiva is a mystical and magical device; it is in fact a representation of what Orokaiva believe European business to be like.

471 Today, Sivepe has three forms of economic organisation. The
[596] dominant one is that where the factors of production are entirely provided by the extended family and where the product is appropriated by the extended family also. This sytem applies to subsistence as

652 expected to levy. He wrote his Bishop that he would not collect the
871 tax. His letter seems to have been only one trickle in a river of non-cooperation and I never found out whether the government prevailed over the missions.

871 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a
[431] major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's education differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle
[558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could
●[829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have
[191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

Section 5: Attitudes Towards Government

829 Orokaiva attitudes towards the government have three aspects
563 that must be carefully distinguished: attitudes to individual government servants, to the power structure and to the values represented by the government. As for attitudes to individual public servants, I have no evidence for any change in attitudes. In a subtle way every white man with whom Orokaiva come into contact is tested according to various criteria: fairness, courtesy, willingness to reciprocate gifts and services, willingness to eat with the people (a rare phenomenon, this) and above all, his behaviour in the constant battle of wits and inner strength in which Orokaiva delight. A man such as Mr. Kaad who was a good man by all these tests, was remembered with much affection; others, though excellent by the criteria of the Australian public service, would be resented or soon forgotten.

657 The Orokaiva attitude to the power structure is determined by
177 a rather harsh history of earlier contacts, beginning with the murderous régime of Monckton and culminating in the 1940's in the Japanese conquest, the Allied re-conquest and the public execution of a small band of Orokaiva who had sided with the Japanese. The welfare orientation of the Australian government was perhaps never massively demonstrated before the eruption of Mount Lamington. At the present time this welfare orientation is well understood but the Orokaiva fear the Australian power to compel their compliance. They use what resources they have to keep this power within limits. They have found that it is usually fruitless to disobey Australian commands openly, but power can often be made ineffective if orders are misunderstood or forgotten or evaded. Furthermore, it is a general rule among Orokaiva to withhold information systematically from the kaupa. It took me some months to learn that even the simplest information I had about the Orokaiva was often unknown to Europeans, not because they were not interested but because nobody would tell them. On a few occasions when an official asked me a question I would say that any of his "driver-boys" (that was how they referred to their drivers) could answer it and the official would answer: "Nobody will tell me. They all say they don't know." This is indeed a potent weapon against colonial administrators.

657 It would be wrong to assume that this attitude is directed
177 against Europeans in general, because there was great variation in the treatment of individuals, and also, it is not directed against the values Australians are trying to introduce. The avoidance of communication is largely, I think, a device in the power struggle between the colonial government and its subjects. The Orokaiva do what they can to avoid being dominated. In this context, the setting
[623] up of local government councils was a great step forwards. The councillors do not meet with the same communication bar because the people know that they can control them through the electoral machinery. Hence it

875 Australia, enough of contemporary thought in literature, art and allied
657 subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 Though membership is open to persons of any ethnic group, it
666 seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election
[123] approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority.
[829] The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

159 external representation of Sivepe was at stake, the two men worked together admirably as a team. Lawrence solved the tricky problems of partitioning blocks shared between villages with a speed which would make any surveyor envious, and got agreement from the other parties because the solutions he proposed seemed fair. Robert carried out his own function of seeing that the working parties came together, that the clearing work was done for the survey posts, and so on. However, when I took them both to Popondetta in my car, they had very little to say to each other. When I told Lawrence who his companion was to be, he gave me a look of mock despair. (He had a different look of mock despair for my use of the Orokaiva language.)

[829] Robert was more deeply involved with mission values than any of the others. He was the only one to have recognised that our [126] civilisation actually does have some moral values. I recorded stories [124] from a great many informants on tape--the subjects being usually selected by the informant for these longer texts. Robert was the only one to have chosen themes overtly showing a mission influence: one story was about a Father Holland who was betrayed to the Japanese by Orokaiva during the war; the other story was his own version of Adam and Eve and the Fall, to which he gave a splendid Orokaiva twist: God, dismissing the couple from the Garden of Eden, said: "For a long time you will have sorrowful days and be sad, but also you will have happy days and be happy. Thus he spoke and all of us today live in this manner."

571 To conclude these impressionistic sketches, I shall suggest a
157 contrast between the leadership of Sivepe and Inonda. When we consider the two men just described, or Samuel, the village constable, Robert's father and the councillor, an immigrant from Binduta, we notice that none of them stood out from the rest of the village by superior wealth. Certainly, Robert's father once gave a big feast in Sivepe; he had some savings and gave another small feast while I was in the village, but he stood out mainly in virtue of his role and his personality. The councillor was a consummate actor who exuded a great air of authority while he was in the council. But in Inonda, the village constable, Oriri, was at the same time an entrepreneur, the first cash cropper. He was also the occupier of a strikingly larger area of land than anyone else had. His son, Stephen, the driver, likewise was very much an entrepreneur, both in his cash-cropping ventures and in his attempt at a trade store, at trading in coffee, in vegetables and lately, his application for a loan to start a cattle farm. He is not intending to do the farming himself, but wants to have a younger brother-in-law trained, and he is to work under Stephen's supervision.

Both Stephen and Oriri still continue their interest in traditional observances. The father, who lives on a returned servicemen's section where he grows cocoa, came back to his home village to act as feast leader in 1967. This was very much a traditional affair, with a proper feast house, a ceremony to call down the spirits, chants and dances for the spirits for several weeks, something Sivepe would

the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data, dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various levels of culture. It will be demonstrated that although land tenure does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,

significance is assigned to this distinction for the purpose of stating some ideology.

Barthes (1964a) points out that in a connotative system the level of expression is "rhetoric" and the level of content is "ideology." This seems to describe the pattern accurately enough. The present explanation may be reduced to a rhetoric or moralistic vilification expressing a tribalist Waseta ideology. The rhetorical aspect is clear because in actual fact both tribes hunted on the mountain though only one was hit seriously by the disaster.

I now turn to a second explanation which deals with Orokaiva, though we have very few data on its currency among them. The explanation is contained in a report (undated but probably written shortly after the eruption) from Fred Kleekham, district agricultural officer, Popondetta, in which he describes a mission-sponsored "Christian Cooperative." This cooperative flourished among the Yega at that time where, in Kleekham's opinion, it "did indeed become a cult." Kleekham reports that members of the cult refused to have their rice hulled or bought by the government and that this was due to "some mystical element . . . involved in rice marketing." He continues:

> I think that more influential than the thought that Europeans would leave Papua as a result of cooperatives was the belief that the formation of and participation in cooperatives would—magically or mystically—in short time raise the native to the status of the European in all respects. . . . I am sure that this movement owed much to hanging of Orokaivas judged responsible for the murder of missionaries and the former officer in charge of the coffee project.
>
> It is interesting to recall that one group was prepared to do *anything* under European guidance to get money. Their message was "show us how to get the money to buy the guns." Later the Lamington eruption which obliterated the government station at Higaturu was regarded by many as payback for the hangings.

There is no evidence that this explanation of the disaster was ever held by any Orokaiva. It is more than probable that this explanation is that of the Yega, who are traditional exchange partners of the Orokaiva and enemies of the Sangara. It is among the Yega that Kleekham worked, and I am inclined to believe that the Yega widely accepted the views he reported. This would fit the facts as we know them. Certainly we should not expect the Orokaiva to explain the disaster by a theory which accounts only for

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

eruption met their fate on the very same spot (Higaturu) where the executions took place some years earlier.

I include the Yega explanation in this study because it influenced the total regional communication system from which the Orokaiva derive their basic concepts. What is this regional system? It is certainly not a postcontact introduction, yet it has a very different significance now as compared to the last century.

Williams (1940, n.d.) shows that the external boundaries of the human race, as defined in Orokaiva myths, take in most of the population of the Northern District of Papua but do not extend beyond the Northern District. Internal boundaries drawn in the myths separate this population into a number of mutually hostile language groups, each specializing in the production or supply of certain distinctive products. It was an integral part of Orokaiva social thought to hold that permanent peace was impossible between the groups thus separated, although a truce was occasionally established and trade and intermarriage were regular occurrences. In this respect, the Cargo Cults of the early postcontact period (the Baigona Cult in 1912 and the Taro Cult in 1914) marked a radical innovation. The chief social message, especially of the Taro Cult, was that villages and tribes hitherto divided by strife should be united in brotherhood. The cult taught that the traditional tribal boundaries should be disregarded and all Papuans of the region were one people. This idea started in the coastal region but soon spread from there to Orokaiva territory (see Chinnery and Haddon 1917; Williams 1928).

At the time of the eruption, the coastal people were again involved in a millennial movement, the Christian Cooperative, which was spreading throughout the Orokaiva tribes. While tribal boundaries were a source of anxiety in all the evacuation camps (though the anxiety was more acute among Sangara relocated on the coast than among Orokaiva relocated at Ilimo), the possibility of a further development of the Christian Cooperative was still open, and this would have involved general acceptance of the Yega explanation of the disaster.

Comparing the Orokaiva and Yega explanations, we note that the cause of the eruption in both cases is the anger of Sunbiripa, although the Yega explanation is not entirely explicit on this point. Furthermore, both explanations take a rather negative view of European power—one by ignoring it, the other by making it the ob-

731 ject of the wrath of the mountain. There are, however, two inter-
184 esting differences. The first is that in the Orokaiva explanation we
find an opposition between two tribes (Waseta innocent; Sangara
829 guilty). In the Yega explanation we find an opposition between
ethnic groups (Papuans of the Northern District innocent; Euro-
peans guilty). This classing together of the Papuans of an entire
region is a departure from traditional tribalism. It reflects an
ideology aimed at maximizing indigenous power by the establish-
ment of an intertribal regional coalition.

731 The second difference lies in the role of Sumbiripa (or whoever
184 the angry deity was) in the two explanations. In the Orokaiva ver-
sion, the transgression was against the sacred domain of Sum-
784 biripa and thus of a familiar traditional type. In the Yega version,
the punishing God assumes a strangely political role in taking the
side of the Papuans against their enemies, the whites. The crime of
the whites admittedly took place near the mountain, though not in
the sacred domain. Sumbiripa was never, in any other context, de-
scribed as a general defender or avenger in support of "his" peo-
ple. Indeed he seems to be playing a somewhat Jehovah-like role in
this tale. We are here in the sphere of the Cargo Cults or millennial
movements rather than in that of traditional Melanesian religion.

Meanwhile no mention is made of the 3,500 Sangara who died in the disaster. This would have weakened the argument, for any reference to the Sangara victims might have suggested that they too were worthy of punishment. Though the Yega probably do think so, it would not have been expedient to say so when an intertribal alliance was contemplated. Here we are obviously closer to ideological rhetoric than to philosophical speculation.

731 The third explanation of the disaster is the one that has at-
784 tracted the most attention by previous writers. Belshaw, who met
797 Orokaiva survivors a few weeks after the eruption, records the fol-
184 lowing observations (1951:242):

> Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them betrayed missionaries to the Japanese. [Others again mentioned] lack of cooperation in Mission and Government plans for development. . . . This sense of guilt is a most important factor in resettlement attitudes.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

Connotation	Explanation			
	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that instead of timeless constructs of primitive philosophers we are occupied with a series of historical events both before and after the eruption, all of which became signs much in the same way as the eruption; the explanation will take the form of the tracing of associations between these signs. There are, however, some stable principles governing these connections. We turn to these first.

I have argued elsewhere that the social structure of the Orokaiva is characterized by a weak patrilineality with small corporate groups but that exchange transactions between these groups are, in many respects, highly structured (Schwimmer 1970a, n.d.). These exchanges follow rules which are justified by an elaborate system of thought arising out of the principle that gift making is the source of social potency and exchange is the measure of that potency. Such a system, by its very nature, makes no assumptions about the permanency of social associations, as it is only the success of exchange transactions that allows associations (outside the small corporate groups) to endure. Decisions about the upkeep of particular associations are of necessity determined by criteria of allocation. According to Orokaiva ideas, associations go through alternating periods of positive reciprocity (friendship) and negative reciprocity (war). Whereas in Western thought permanence is considered normal and quarrels a deviation from the norm, the Orokaiva do not envisage either friendship or enmity as permanent states but rather as alternating temporary states.

The implication of this philosophy for social relations (and this includes Orokaiva-white relations) is that they never are what a Westerner would call "friendly" or "hostile." It would be more correct to say that at any given time they may be going through a positive (friendly) or negative (hostile) cycle. Movements from positive to negative cycles tend to be gradual, since in the Orokaiva view social relations tend to deteriorate constantly, little by little, until they become hostile. On the other hand, movements from negative to positive cycles tend to be highly dramatic and ritualized—usually through reconciliation feasts and gifts. In relations with Europeans, reconciliations are harder to effect since there is no commensality between the ethnic groups.

If it is natural for social relations to deteriorate constantly and gradually, it is still possible to decide that one will allow an association to deteriorate before one takes active steps to restore it. Such a choice is determined by many factors: intrinsic attraction

24: Schwimmer E-5 (1966-1973) 1977
QJ23 Orokaiva QJ23

829 511 felt toward the exchange partner, fear of the trouble he might cause, instrumental benefits he has to offer, the importance of the partner in the total exchange network, and so on.

[519] Anger, in this Orokaiva philosophy, is a normal attitude toward a partner with whom one stands, for the time being, in a relation of negative reciprocity. An exchange of injuries takes place until peace is made by the offer of an appropriate gift and feast. The anger of Sumbiripa does not completely fall into this pattern because here the exchange relationship is somewhat limited in scope. Sumbiripa's gift to man is the safe confinement of the dead, whereas man's gift is merely the avoidance of any disturbance of Sumbiripa's mountain. Man mediates the relationship by sending his dead to Sumbiripa; Sumbiripa mediates it by emitting his usually innocuous rumbling. Before 1951, Sumbiripa was not known by Orokaiva to have ever erupted. Hunting on the mountain and similar infractions were believed to have broken the exchange relationship and thus aroused Sumbiripa to a just reprisal.

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Sumbiripa's anger was righteous not only because he was a god. In the framework of Orokaiva thought, serious anger is normally regarded as righteous, at least among persons standing in a regular exchange relationship. If anger expresses itself in verbal abuse or physical violence it is not serious, but it becomes so if misfortunes occur because of sorcery imputed to the person who is wronged. The successful magical expression of anger proves that anger to be well founded. A man may of course decide to use countermagic, and if that works the anger is no longer serious. If countermagic does not work, a man must be ready to acknowledge his fault and make reparations.

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In such a dispute it is of course relevant which side has broken a rule, but the rules are most often debatable. In the end nothing is considered worse than to have made another person seriously angry. Prudence demands that seriously angry persons should be mollified, unless their kinship and physical distance is such that they can be defined as enemies. But even between enemies, a time comes when anger is shown by magical and other misfortunes to become inexpedient.

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Self-accusation and self-inflicted injury are a regular part of this system. In order to make peace a person must define himself as the transgressor (Schwimmer 1970a, n.d.), as the Papuans did in the 'anger of God' explanation. Self-injury is a regular strategic

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24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

weapon, since the person who cuts down his own tree to injure himself shows anger about a hostile act perpetrated by some unnamed person. He thus makes a claim for community sympathy and possible restitution (Williams 1940). Self-accusation is a form of self-injury and therefore at once places an obligation on the *sufferer* of the supposed original injury. In this sense an acknowledgment of guilt by Orokaiva would place some obligation on Sumbiripa or God to forgive them. Thus we can never ignore the transactional element in what is manifestly a sincere state of contrition.

It is far more complicated to explain the anger of the Christian God, and people's belief in it, than to explain the anger of Sumbiripa. At the time of the eruption, few Orokaiva had been baptized, whereas it was precisely in Sangara territory that the mission was well established and had many adherents. Most of the persons who thought they had been punished by God were actually still pagan, which strictly should have put them out of reach of his wrath. We need to reconstruct as best we can what kind of exchange relationship was deemed to exist in 1951.

We can appraise this only if we consider briefly the total system of relationships of the Orokaiva within the colonial macrosystem, namely the social unit comprising Orokaiva, mission, government, and traders. Theories about the punishment of God referred not only to Orokaiva neglect of the mission but also neglect of instructions and advice given by the government. The traders were never mentioned.

One common characteristic of government and mission is that both institutions believe they are the Papuans' benefactors and say so on many occasions. In particular, it is on these supposed benefits that they base any moral claims they make on the Orokaiva. When the eruption occurred it was therefore reasonable, from the Orokaiva viewpoint, to conclude that their slowness in satisfying the claims of government and mission had aroused in them great anger and that God, who manifestly was looking after the white authorities, acted as agent of the punishment.

In exchange relations it is a fixed policy to satisfy the claims of important partners first and be much slower about the others. The fact that the whites, in spite of their immense wealth, had a fairly low partnership ranking is not difficult to explain. If we glance at the kind of interaction typical of the years 1900 to 1950, we find

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

that the European exchange partner did not have a great deal to offer the Orokaiva, because not even money was essential. Conversely, the fear of the trouble the white man might cause was not so great as one might suppose. Certainly, there were horrifying stories about what the white man might do if angered, but the Orokaiva had since learned some simple rules telling them how such anger could be most conveniently evaded.

Until World War II, the relationship between the Orokaiva and the government followed this general pattern almost entirely. The government made the regulations and the Orokaiva did the unavoidable minimum. World War II began to change the pattern of this partnership. Australian and American soldiers moved into the Northern District to drive out the Japanese. They camped in the bush, they shared their food with the Orokaiva, they accepted Orokaiva hospitality, they generously distributed what supplies they had to spare. The white soldier, unlike the civilian, lived in a style much closer to what the Orokaiva consider human. He laughed and joked in the presence of the Orokaiva; he put on no colonial pretense.

After the war, the Australian government changed its policy in the territory, suppressing corporal punishment of employees, emphasizing economic development in the villages, improving schooling, introducing local self-government on a limited scale (and later political representation in the House of Assembly), offering Papuans jobs of some responsibility, and discontinuing the type of village policing that made all reforms dependent on the enforcement of regulations. The village constables, whose job was in practice confined to reporting infractions of the regulations, were replaced by elected officials (local government councillors) who are indoctrinators rather than policemen. They harangue the people with a diffuse message covering a wide area of social and economic development. They seek to secure acceptance for new ideas, so that people will genuinely believe in the usefulness of changes they are making.

When I visited the Orokaiva in 1966–1967, I found a great deal of ideological discussion, the key concept being *iji eha* ('the new day, the new age')—a new way of life based on the economics of coffee growing and wage earning, the social amenities of improved villages, school education, Christianity, avoidance of violence, and, generally, cooperation with the mission and administration. I

I was amazed to see how closely the councillors' harangues and other speechmaking in the villages corresponded to official policies. Many of the advocated ideas were not being put into practice, but generally the transition seemed rather smooth. There were conflicts between the Orokaiva and their mentors, in some instances irreconcilable ones, but it seemed that consideration of these conflicts was being deferred because there was evidence of steady improvement, as long as coffee prices would only keep rising.

Informants, when asked when the 'new age' had started, all replied that it was after the Japanese were driven out. The eruption was never mentioned as the beginning of the 'new age'. It was after the war that the money economy became important and men began to take jobs outside the village for protracted periods. It was then that money became a necessary part of bridewealth so that, as an initiatory ritual, every young man had to have earned some. It was after the war that village improvement started seriously, as the history of individual Orokaiva villages shows.

The eruption of Mount Lamington in 1951 came a few years after these beginnings, at a time when the impact of money was not yet great, though the government and mission had had time to communicate the new order they sought to establish and to press for changes the Orokaiva were not too ready to accept. The eruption strengthened the message. On the transactional level, there was the large-scale help offered by the Europeans after the eruption. This was done in the most dramatic way possible, by planes dropping their riches in great abundance shortly after the disaster. Certainly such a massive display of concern in a moment of need did much to enhance the image of Europeans as desirable exchange partners. This display was followed by the organization of the camps and by the widespread introduction, especially at Ilimo Camp, of activities that were symbolic of the 'new age'.

Daily church services were conducted, all children were given regular schooling, adults were educated in a number of new agricultural and technical skills, good medical services were provided, and regular food and clothing distributions continued. New ideas on housing, village layouts, and women's handicrafts, lectures on how trade goods are manufactured in Australia, the presence of a strong development-oriented and numerous European staff—all these elements must have amazed the Orokaiva villager of 1951,

biripa' in terms of a simple transactional sequence. The 'anger of God' can be similarly explained, though here the sequence is more complex. As a general device for constructing metalanguages, transactional sequences are of course wholly inadequate. I have, however, indicated that in the Orokaiva cognitive system God is classified as an exchange partner (though more powerful than all other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship with God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the agent of vengeance. We have seen that the four explanations were, in each case, not only a psychological response to calamity and a philosophical exercise but also expressed ideologies essentially unconnected with the eruption and that, in this respect, discourse about the eruption was actually rhetoric used to express the ideology.

The coexistence of four such ideologies in the same society poses obvious questions about their interrelations. Were they held by separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

construct a higher-level system which accounts for all the explanations taken together.

Let us first survey the relationships between the explanatory systems on the social level. They do not logically contradict one another: they can be and are held simultaneously by the same people. There is no need to believe that the eruption was caused *either* by God *or* by Sumbiripa nor that the intended victims were *either* Orokaiva *or* Europeans. My informants did not seem to view God and Sumbiripa as wholly distinct. Whether one ascribed the eruption to one or the other depended on the context of the discourse. Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial cult, but this did not happen. In fact, the Yega cooperatives went into a decline after 1951, owing to crop failure, the departure of its advisors, and governmental opposition in the form of economic and legal obstacles.

None of these reasons would have sufficed to kill the movement had there been, in the 1950s, a strong opposition to the administration of the Northern District. There is, however, no evidence of this. On the contrary there was, between 1951 and 1967, steadily increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

so that the room for manipulation becomes greatly reduced. Furthermore, the church teaches a doctrine of obedience, which the Orokaiva nominally accept.

Taken at its face value, this would imply that the Orokaiva are satisfied to subordinate themselves to mission and government and do not consider themselves capable of serious competition with white authority. Such a notion of 'power'—that is, that it depends on obedience to white foreigners—has no rational basis in Orokaiva thought, since the bearer of 'power' cannot be subordinate to human power but only to spirit power. There are thus only two reasonable possibilities: either the ideology which made the eruption into a punishment by the Christian God denies the possibility that the Orokaiva henceforth can have 'power', or that ideology must make some distinction between, on the one hand, God and the principle of rightful authority (which should be obeyed on the pain of dire penalties) and, on the other hand, the existing ecclesiastical and political power bearers (who need not be regarded as having perpetual rightful authority). The position taken by Orokaiva informants on this question is not in the least ambiguous.

The Orokaiva are willing to obey the present power bearers, but only on the ground that they feel unready at present to assume power themselves. They regard the existing relationship as temporary. They are able to state this openly, since the Australian administration claims to prepare the way for early autonomy and optional independence. On the surface, there appears to be no acute political conflict.

In fact, however, the 'new age' ideology is fiercely competitive. The activities it advocates are perceived by Orokaiva as leading to a balance of power between the Europeans and themselves. The strong interest in schooling, savings clubs, coffee production, village improvement, wage labor, and so forth was explained time and again by the argument that these activities would ultimately place Papuans on the same level as Europeans and would remove the power differential. It was explained that in the 'new age' one no longer kills and eats the enemy because victory must now be achieved by different means. The reforms advocated by mission and government are perceived as the first weapons in the armory needed for victory. Victory, however, should not be understood here in the European sense, where it implies a permanent defeat of

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

the enemy, but rather in the Papuan sense, where one contends with exchange partners in an inconclusive tug-of-war and the strength of the opponents is approximately equal. Victory, in other words, is the establishment of an equal rather than an unequal relationship.

Given this view of the European-Orokaiva relationship, it is difficult to distinguish between millenarian and gradualist ideologies among the Orokaiva. They are all, in a sense, millenarian, even though they advocate full collaboration with both mission and government. From the more objective view I have taken here, the three Orokaiva ideologies present at the time of the eruption all convey the same message. They are all concerned with the restoration of what the Orokaiva call 'power', which always implies some form of power balance between themselves and their colonial masters.

IDEOLOGY, POWER, AND LAND

As we have seen, all Orokaiva discourse about the eruption can be reduced to one basic theme: competition for power between Papuans and Europeans. I have not surveyed administration discourse about the eruption in the same detail, but it is safe to say that, apart from the mechanics of relief, the administration was likewise concerned with one central ideological theme, namely socioeconomic development. Our structural analysis would hardly be adequate unless we considered the relation between these two ideologies, not only in abstract terms but also in the framework of concrete events.

During the period immediately after the disaster, the administration planned to make the evacuation camps the beginning of permanent relocation under conditions where socioeconomic development throughout the region could be accelerated (Belshaw 1951; Keesing 1952; Plant 1951). While this relocation was being planned, the evacuees were adamant that they wished to go home as soon as possible (Belshaw 1951; Kaad, personal communication). That the administration gave in to the evacuees should not be regarded as a Papuan demonstration of their own power but rather as a necessary response to practical problems facing Orokaiva as swidden agriculturists lacking a secure system of individual, unencumbered landholding. The circumstances of the closing

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

administrators, accustomed to secure forms of land tenure in their own culture, could not fully share the Orokaiva anxiety about losing their land.

This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

This analysis of the 'new age' ideology indicates that it is related only loosely to social and economic development. It arises directly out of political competition between the Orokaiva, the mission, and the government. Whenever new techniques appear to the Orokaiva to serve this power struggle, their adoption is advocated. We have seen that a traumatic event such as the eruption of Mount Lamington, when it became the subject of Orokaiva philosophizing, was at once put at the service of this competitive struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and micro-processes. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is pleasurable. Rushing and heavy burdens are avoided when possible, but when they are necessary they are classified as 'toil' (*pure gaiha*) and people rest later to make up for it. The only time measures used are: early morning, midday, afternoon (meaning: time to go home) and evening-night (meaning: after supper). Though gardens have a principal crop, mostly taro, the subsidiary crops, ornamental trees, garden house etc. are charmingly landscaped so that the garden is in a sense an artistic creation (Malinowski 1935; F. Panoff 1969). Whether rows are regular and what is the general standard of husbandry are very much individual matters. It is said that by looking at a person's garden one can read his or her character. Among the Orokaiva the girls are said always to look at a boy's garden before marrying him. De Coppet (1976) reports the same for the Are'are of Malaita, except that it is the girls who are more under scrutiny. The criteria would partly be the style of the garden, showing a pattern of mind, but also and largely the size of the garden, the size and the health of the plants, the quality of the varieties.

One could keep on with such description for a long time without coming closer to defining garden work as a concept. Myths and rites prescribe details of the gardening cycle for each of the principal crops while at the same time establishing identification between grower and crop: taro is a mother; a mother Taro is invoked; married women think of their taro as their children. The

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

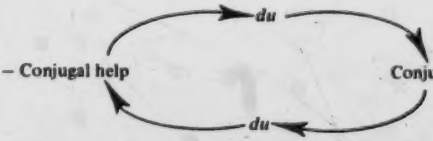
5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

principally referring to classificatory systems built up from such metaphoric oppositions. When I use the term 'metaphoric gift', I mean a gift about which we are told in a story, the message of the story being that gift and recipient are metaphorically identical. The point of the story is to establish the symbiosis of men and women, the use of the metaphor. An example of such a story would be the gift of sacred emblems to the infant Dionysus in Orphic myth. This story tells us how Dionysus received certain gifts (cone, bullroarer, golden apples, mirror, knuckle-bone, tuft of wool) which de ined his nature. In the same way, in Orokaiva myth, men are given a coconut nature and women an areca nature.

Orokaiva informants offer what they regard as empirical evidence for this. Coconut may be recognised as a man because the palm germinates slowly and the fruit comes to maturity slowly ('it comes slowly'). Likewise, so I was told, the male is slow to be sexually aroused and to desire women. *Areca* may be recognised as a girl because it germinates and comes to maturity quickly – the fruit matures faster than the coconut. Likewise woman is quick to be sexually aroused and to feel desire for a man. In this analogy the botanical facts are evident but the psychological generalisations describe no more, perhaps, than Orokaiva role expectations.

We may clarify the myth and its philosophical message to a certain extent by an analysis on the level of exchange cycles. The fundamental cycle is obviously the following:

MODEL 29



This is the model of sister exchange marriage where two men become brothers-in-law by each giving their sisters (*du*) to the other in marriage. If we now remember the identification between woman and betelnut (*sā*), and the social relationship which is considered normal between *dambo*, we may substitute as follows:

MODEL 30

We thus derive the rather interesting conclusion that the sense of an exchange of betelnut between men is that they are symbolically exchanging sisters. This is a rather bold conclusion which is best left as a speculation to be explored in later

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

[TEXT CONTINUED ON PAGE 29]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE VIII/1

'ARECA' TRANSACTIONS: SIVEPE AND INONDA

The following figures group together transactions involving *areca* nuts and lime used for chewing with *areca*.

(*Source*: Waddell and Krinks, 1968: 180, 210, 218, 237, 265, 270, 272)

	Sivepe		*Inonda*	
	Acquired	*Disposed*	*Acquired*	*Disposed*
Total transactions (lbs.)	124	114	93	39
Distribution (%)				
within village	56%	44%	30%	57%
outside village	44%	56%	70%	43%
Non-monetary transactions (lbs.)	107	100	83?	38?
Monetary transactions (lbs.)	17	15	9.8	1.0
($)	3.70	3.00	2.06	0.20
Donors and recipients by sex: Men	52%	71%	42%	36%
Women	48%	29%	58%	64%

biochemical action differs from that of the coconut (narcotic rather than nutritive), so its symbolic significance in magic and ritual also differs. A girl carries a bunch of betelnut at the ceremony concluding her seclusion after first menstruation. She also has betelnut to offer to a man at lovers' meetings.

The only betelnut myth recorded by Williams (1928: 123) emphasises the nut's aphrodisiac associations. The betel palm had a liaison with a village woman. Every night it bent over her house to visit her; every morning, as the birds woke, it bent back to stand once more as an immobile palm but left around her house a litter of small flowers. When the intrigue was discovered, the jealous husband cut down the palm. The lover cried as he fell: 'Now I am a man no longer but a mere betel palm; take these nuts and eat them.' This myth resembles the one collected by myself in that the hero was a male, although the *areca* palm is classified by Orokaiva as a female plant. The explanation of this remarkable discrepancy will be one of the main tasks of the present chapter.

The symbolic significance of the betelnut is not, however, exhausted by its role as a catalyst in sexual love. One may call it, more properly, a catalyst in any kind of social exchange. As such, it helps to restore amity between former enemies. Its narcotic action raises the spirits of both opponents to the sphere of primal time when no strife existed. In sexual love, according to Orokaiva, feminine sexuality is dangerous, even lethal, to man in certain circumstances, a notion which is reflected in a number of avoidances woman must practice in order to avoid polluting and ritually killing a man. In courtship, the woman must take the initiative; the man is represented as slow and reluctant, precisely

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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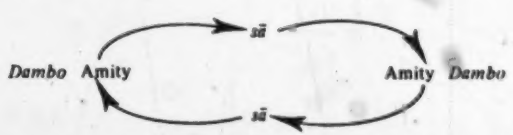

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26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

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While metaphoric gifts do no more than mythically explain a code structure, metonymic gifts are those which mediate social relations between partners whose nature was established prior to the gift and whose nature is not changed essentially by the gift. In such a case it may be said that the donor "gives part of himself." Thus a girl, whose nature is that of areca, will give areca, and a man, whose nature is coconut, will give coconut. The metonymic gift is the basis of network structures. If the two partners in social exchange are of a different nature (in respect of the transaction in question), then each will use his own distinctive object of mediation as gift to the other. Girls give areca to men, but men give coconut to girls. (I am speaking now of a ritual, not an everyday context.) The simplest kind of network structure may therefore be represented by the following model:

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making.

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

26: Schwimmer E-S (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

581 account, the meeting ruled that the cause of the marriage breakdown was the
586 husband's refusal to allow her to enter his garden. The attempted seduction, the
627 adultery, the escapades to Port Moresby, the violent words and acts that had characterised the marriage over the years were all declared to be blameworthy, but the most serious of the offences was the husband's act in denying his wife entry to the taro garden. This signified the breaking off of the basic exchange relation in a marriage whereby the man clears the garden, the wife harvests the taro, and cooks it, and the husband and wife both eat it. I was told that when this exchange relation is broken, the marriage itself breaks down.

Why it is the taro garden where exchange between husband and wife is so important will be discussed in Chapter VI. I am concerned here to show that in tracing the cause of a marriage breakdown, what the Orokaiva seem to be looking for is evidence of a breakdown in the area of gift exchange. As long as the husband still gives his wife taro, there may be considerable difficulties between them, but these are not *defined* as a breakdown in Orokaiva culture unless there is a breakdown in Obligatory exchange.

578 Another such case was that of a man who took sides in a quarrel between his
837 brother and another man who had been trying to rape, i.e. seduce by force, that
571 brother's wife. I thought that the village generally would be on the brother's side, as rape is disapproved of, but almost everyone took the side of the rapist and the man who took the side of his brother had to leave the village. The man who was expelled had a long history of trouble making. During my stay he had been involved in every fight except those between husbands and wives. He had also committed rape, his victim being a prohibited partner under the incest rules. His trouble was, so I was told, that no woman wanted him. I asked my informants why this was. The reason was that he had been married previously, he had maltreated his wife and she had run away. Now nobody would help him.

[583] And why would nobody help him? Well, brideprice had been paid for his first
[581] wife; it had been lost through his fault, and that was the 'real' reason why nobody supported him in the quarrel. Here again we notice that the cause of the trouble was the [illegible]kdown of an exchange cycle. When a man has been helped in paying brideprice he has an obligation towards his clansmen to hold his wife, raise a family and be a support for the others. He must manage the relationship with his own affines properly and make them into valuable exchange partners.

829 In both instances a basic exchange cycle had been broken and that was
431 thought to constitute the essence of the relationship. In the first case this was the
436 exchange between man and woman in making their own contributions and deriving their own benefits in the taro garden – a cycle of exchange which parallels the cultivation cycle of the taro itself. In the second case it was the exchange between clansmen which is complete only when the man who received the brideprice provides recruits for the clan, as well as a steady new affinal alliance. It does not concern me here whether psychologists would, in such cases, accept the exchange breakdown as the real cause of the social breakdown; I have illustrated that the Orokaiva view social breakdowns in this manner.

245 but would estimate plantings to be about 4,000 trees, occupying
177 an area of eight acres.

Among resources which produce significant current income in
311 Sivepe and Inonda, two other types must be briefly mentioned here, though they must be more fully discussed elsewhere. Income is
434 earned by men who are normally resident in the villages. When
167 these men are married and living away from the village with their families, they provide support to the home people on critical occasions and also, when villagers pay visits to them. I briefly met a few Sivepe men who settled in Port Moresby and these men were called upon, during the year of my study, to pay several plane fares and feed several men who tried their luck in looking for jobs in Port Moresby.

Secondly, men who return to the village after outside
167 employment are bringing savings into the village which forms a
464 significant source of revenue. Such savings often form part of the bride-wealth paid by clansmen and it is thus the affines who spend
[583] it. During the year, four Sivepe men went to Port Moresby for employment and three returned; one Sivepe man took up a job on a plantation for awhile, largely to pay overdue taxes; a number of
434 men ordinarily working outside came home for short visits. Probably
837 the most regular income is derived from absentees when the men go out to work by themselves, leaving their wives and children behind
613 in the village. Six such split families existed in Sivepe; in every case, regular envelopes containing money were posted to the wife. In the cases I investigated, eight to ten envelopes arrived in a year, each containing $10 and sometimes $20. These envelopes represent a considerable percentage of village income. As long as the money keeps coming, a man knows that his relations will closely watch his wife and will carry out obligations towards his affines; thus, his wife will be kept under strong moral constraint from all sides. It would be cynical to explain the generosity with which men maintain their wives wholly by such motives, but the Orokaiva do regard "looking after" the wives of absentees as a valuable service and the envelopes are thus a form of repayment. "Looking after" the wife and children, indeed, comprises a wide range of services which must be performed by men of the lineage and which are a reasonable charge against the income of a wage earner. As most places of employment in Papua-New Guinea do not provide for married accommodation, we may regard villagers and migrants as engaged in a joint economic enterprise in which each group performs services and obtains benefits.

464 At the time of the eruption several Sivepe men were working on plantations; today, Sivepe people are interested only in the better-paid town jobs, mostly in Port Moresby. In Inonda, however, two men often take up short spells of plantation work while a third, trained as a driver by an anthropologist, has a regular government job in Popondetta.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*tivo*). A man

796 The same pattern is found in the dancing which occurs nightly
177 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepe, I saw a village with new houses, built on the govern-
[361] ment's instructions, but I was told nobody lived there except when
there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
881 have abandoned what they were still practising. In the early days of
our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (via Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would them be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

The sacrifice undoubtedly transforms the nature of the victim, as the meat, after the analogy of the body of Totoima, is divided among all the guests, who will 'greatly multiply' by the *ivo* the meat confers after this simple sacrament.

After the sacrifice the group who offered it becomes irrevocably separated from the victim. The composition of the group to whom consumption of the sacrificed pig is forbidden is as follows: the pig's 'mother' and 'father', their siblings, their parents, their parents' siblings, and their children. Infringement of the taboo is said to lead to the death of one of the sons of the pig's 'mother'. I was told that the taboo lapses once a woman's daughters have themselves given birth to children. We may safely deduce from this last limitation of the range of the taboo that it serves to protect the woman's power of child-bearing. The taboo does not reach to the third generation: it does not include the grandparents of the pig-rearers. Nor does it include parallel or cross-cousins. These rules emphasise the position of the pig as a member of the family group. The sacrificer of a pig is identified with Totoima precisely in that both killed their own children.

The membership of host and guest groups is defined mainly by residence: one village invites another. It also occurs, in multi-clan villages, that the two groups comprise only some of the local clan groups of the host and guest village. I did not note cases of two-clan villages where this happened, but it does occur in four-clan villages such as Hohorita and Sasembata. Some close relatives of the hosts, though not resident in the host village, may decide to attend and may make a food contribution. The guest group that is invited usually matches the host group approximately in strength. If there is a wide disprepancy in numbers there is a tendency for several closely-linked villages to join together as hosts or to be invited together as guests.

Relationships between hosts and guests are cultivated on both the collective and the family level. The Orokaiva have no large houses for guests, so that each family of guests is accommodated with a family of hosts. If two villages have never feasted together partnerships are arranged at a preliminary meeting, always making allowance for previously existing relationships. Once partnerships are established they become a standing reciprocal arrangement, inherited by the children of the original partners. A good part of the planning of a feast consists of amassing suitable gifts to be made to one's visiting partner. It is he who must, above all, be impressed by his host and overwhelmed with generosity. On the collective level, guests are expected to dance for their hosts and to carry out rain-making and crop-promoting rituals.

When I asked why the help of guest sorcerers was necessary to ensure increase of the food supply, I was told that if taro grows poorly in a garden it is assumed that an enemy is using *puripuri* (a form of magic) against this garden, thus stopping the taro from flourishing. When a whole village has poor results, it is believed that someone has used medicine against *all* the gardens. According to his reasoning, the task of the friendly magicians at a feast is to remove their own previous black magic from the gardens. As shown in previous chapters, the assumption is always that parties meeting at a feast have been living in something like imperfect harmony. This implies that there may have been sorcery.

The harvest feast is, therefore, an occasion when the community acts as a corporate group to meet a magical danger which transcends the individual. A

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

601 *Min*: Sister exchange marriage. *Dor*: Marriage 'by purchase'. Under this code, we may define the following terms:

1. *Terms principally used for addressing consanguines*:

epe:	Ef	M	Sr	Gl	A
	M	Sr	Gl	A	Min
tata:	Ef	F	Sr	Gl	A
	F	Sr	Gl	A	Min
ahije:	F	Jr	Gl	A	
	Jr	Gl	A	Min	

2. *Exclusively affinal terms*

atovo:	Em	M	Sr	Gl	//	A	Dor	
imbohi:	Em	F	Sr	Gl	A	Dor		(Williams: *imboti*)
behere:	Em	SS	Gl	X	A	Dor		(Williams: *betere*)
dambo:	Em	SS	G–O	//	A			(Williams: *nabori*)
	Em	SS	G–O	X	A			(Williams: *betere*)
hovatu:	OS	G–O	A					
bi:	Ef	SS	G–O	A				
imi:	M	Jr	Gl	A	Dor			

601 602 The fact that a brother and sister, upon marriage, use different types of affinal kinship terms corresponds to a fundamental difference in their social position in relation to their affinal family. The brother, under a *dorobu* marriage contract, remains a perpetual debtor to his affines. He has deprived them of their most precious possession, a nubile daughter, without giving a woman in exchange. Even though he has given bridewealth and done bride service, and continued making prestations of many kinds, these propitiatory offerings do not wipe out the debt. The *imi* must therefore always act with humility and feel shame when he meets his *atovo* and even more, his *imbohi*. His sister, however, is under no such burden in her relations with her own affines. Her position is precisely the same, whether the marriage has been established by *mine* or *dorobu*. Her use of consanguineal terminology expresses her far greater familiarity and identification.

[591] It might be argued that such familiarity and identification is the direct consequence of patrilocal virilocal residence, but such residence arrangements do not always lead to the terminological differences I have described. These differences, however, are consistent with an ideology which emphasises the detachment of women from their natal clans and their close attachment to their mother's village to which they are supposed to move upon marriage.

842 614 Such an ideology is further emphasised by the Orokaiva notions about paternity. Orokaiva believe that a male child is formed in the womb as the result of sexual congress between father and mother, but that a female child is formed by 'the mother sleeping alone'. The male child therefore carries the 'blood' of the father, enabling the child to carry on the father's lineage, but the female child does not. She is still a member of the paternal clan but the connection is evidently viewed as social rather than physiological. Accordingly all females are named by their mother's consanguines, in contrast to males who may be named

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

by a consanguine of either side, the proper side being determined by a medicine man (See Schwimmer 1969). The effect of this theory is that a woman belongs to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to emphasise the rights and identity of the patriclan in a social system which 'very nearly approaches' bilaterality. In Orokaiva society women very often receive a portion of patrimony land. Their indulgent brothers frequently give lands to their sister's children and such land may well pass into the hands of those children's heirs. Currently, over 50 per cent of cultivated land is owned by persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth payments (*dorobu*) is by contrasting them with certain types of African bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that *'la femme fournie en contrepartie est remplacée par une valeur symbolique'* and that the wife-giving families received in return *'la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses'* (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same ends, or are not in practice generally so applied. The most important Orokaiva

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [775] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

851 marriage is in force; he is, in addition, considered to be the genitor of all her male offspring though not her female offspring.

842 It is obvious that the Orokaiva know the 'basic fact' that when a man and woman have sexual intercourse, the birth of a child often follows and that the latter, in common experience, does not occur unless preceded by the former. The recognition of this fact does not impel them to adopt a genuine 'theory of physiological paternity'; their basic theory remains that of spirit entry which is deemed essential to the conception of all children, whether male or female. The notion of physiological paternity is introduced only to solve a somewhat different problem: why the sexes differ in physiology and legal status. The answer runs as follows: the male is believed to have a special quality (*ivo*), not shared by the female. This is a strength or power enabling the male to play his distinctive roles and it is transmitted by a man to his son in the 'male blood' which enters the mother in intercourse. This is the *ivo* of the lineage. As women do not receive this type of blood, they cannot carry on the lineage: filiation is patrilateral. Having only the 'weaker' blood of their mothers, they become women.

842 562

842 Leach's essay on 'virgin birth' does a good deal to illuminate the Orokaiva case. The Orokaiva, like Christians and the people of ancient Mediterranean societies, believe that some births are the consequence of sexual congress whereas others are not. Both cultures have a further theory according to which some children may be conceived by a 'woman sleeping alone'. Furthermore, both systems explain conception in these circumstances by a spirit entering a woman and fertilising her.

614 182 Now, as I understand Leach, in all quoted cases of parthenogenesis, a great social distance separates a father of egregious status from a mother and maternal lineage of much lower status. In some of the quoted cases, the offspring inherits the father's high status while in others, the offspring remains (as in the Trobriands) in the lower 'stratum' of the mother. The somewhat unusual Orokaiva case fits this pattern quite well. Woman is not destined to stay in the clan but to be abducted or to elope and settle elsewhere, but her children will always covet the clan's land and her brother who is expected to love her is

614 182 [842] not unlikely to meet her request. Her brother's children will fear her constant demands and her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled clan patrimony together. It is therefore tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 171 842 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic facts of physiological paternity' (1967: 41) which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

121 [813] [824] I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories implying causal connexions. It is notorious that primitive thought will easily move from the former to the latter, as the Orokaiva do, for instance, when they note that *taupa* leaves fall while the main taro crop is coming up and postulate that it is the dropping *taupa* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

This point has already emerged from the debate between Leach, Spiro and Kaberry when Kaberry showed evidence that the tribes she studied 'had no idea of the true relation between sexual intercourse and conception' while she admitted that these tribes know empirically that sex relations are a necessary preliminary to pregnancy. She made the valuable point that her informants' empirical knowledge does not logically entail a 'correct' theory of procreation. The Orokaiva case again illustrates that such empirical knowledge may serve as a building block for a wide range of soundly constructed though perhaps 'incorrect' causal theories.

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[p.133-B]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[846] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[864] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

425 f. Local organization and land transfers

(1) Land use. The use of land is necessary in two senses to validate a land claim among these Orokaiva. Usage is an important factor in determining the extent to which land is identified with the component units of the group which claims to hold land (cf. Williams 1928:125 and Plant 1951: Appendix 2).

425 184 Four factors have produced a closer identification between a household and the patrimonial land it cultivates than in some other Orokaiva areas: first, the frequency with which an adopted member retains and transmits to his own descendants land which he acquired from his natal group; second, the limited supply of land; third, continual use by people of the lineage land used by and inherited from their fathers, in that no special access to land of other lineages of the clan branch is accorded to them simply as a group of co-resident agnates; and fourth, a fertile soil which allows a short fallow cycle after single plantings of a predominant soil-exhausting crop.

613 428 [848] It has been common practice for distinct genealogical branches within the lineage to exercise continuous and exclusive rights to separate areas of lineage land. The small group within which these prescriptive rights are exercised and transmitted does not easily endure demographic changes and if there are no surviving male members, the rights it exercised may in certain circumstances devolve on a female member, for instance, and subsequently to her son, even if he is illegitimate, or perhaps a claim of a relatively close agnate will be overridden in favour of a distant clansman, with or without other cognatic ties to the group. When these rights are transmitted outside the direct male line, residence and land use are important as factors which influence the definition of the rights of the beneficiary vis-a-vis surviving members of the wider patrilineal group. As noted above the scope of the authority of members of the wider group in questions of land tends to have been limited by the frequent independent movement of the smaller units.

425 [606] [614] Our descriptions of the kinship composition of the village and neighbourhood and of the social elements of land use indicate that it is common to find men living and gardening in the same village or neighbourhood as their mother's or wife's kin and that the relationship with these people in certain cases overlays some patrilineal affiliation. Individual ties of clanship too are sometimes given new significance when reinforced by co-residence and exchanges of gardening rights. These patterns, we suggest, are correlated with repeated instances of transfers of prescriptive land rights from the small effective landholding group to kinsfolk of other lineages or clans.

man and both are now aged residents of Inonda. Having no other source of land rights they became accepted as primary (but perhaps less privileged) members of their adoptive father's lineage and sub-clan and were given rights to some of his land. These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

In the event of the death of a local man who has young children, the children will need adoption in so far as foster care is concerned, but not necessarily in so far as land rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

423 one party fails to make the required response. It creates a wrong impression to
593 speak of land being 'vested' in a man if all he has (independently of some
[578] woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 A second basic transaction mediated by the land is that between the soul of a
423 recently deceased person and a new-born infant. The Orokaiva believe in
887 transmigration of souls. But this transmigration occurs through the mediation of
241 the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 Crops from the garden cultivated by the deceased may not be eaten by any
768 member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops.
241 After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 Transmigration is affected by a ritual performed shortly after the birth of an
851 infant. The parents take the child to the land where the spirit of the deceased is
774 believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

a baby, named Jarata, who became sick and died at the age of nine months (of gastro-enteritis). I was told the cause of death was the father's neglect to collect the stick. The baby Jarata who died was described as a spirit baby (*meni ahihi*); the real baby (*meni be*) had been left in the garden inside the stick and was taken away by the fairies (*sovai*). When the baby became sick, the medicine man went to collect the stick, no doubt with appropriate magic, but it was too late; the 'real baby' was no longer there.

This explanation, referring to the father's neglect, was given by members of Jarata's maternal clan. But I was given a second explanation by the child's paternal clan. According to them, the child died because the mother did not look after the land properly. The assumption here is that if the garden where the child obtains what we provisionally call his soul is well tended, then the child's body will also grow well, but if the garden is neglected (horticulturally or ritually), the child will become sick and die. This intimate connection between the garden and the well-being of the soul endures to some extent throughout life but is especially critical in infancy before a child is able to walk and grows teeth.

It is clear that the 'baby in the stick' resembles what is generally known as an 'external soul'. In its more usual form an 'external soul' resides in an object which is carefully preserved from danger, for any vicissitude that may threaten the object will also threaten the life of the person to whom the 'external soul' belongs. Normally such an object is carefully buried and kept out of harm's way. It appears that the Orokaiva do believe in external souls in this sense, and that they reside in particular specimens of a plant after which a person is named, but that is not relevant here. The concept of the baby in the stick differs in interesting ways from the usual kind of 'external soul'.

The first difference is one of terminology. When I asked whether the part of the baby that was in the stick was called its *ahihi* (spirit) this was denied explicitly. On the contrary, it was the *ahihi* of the child that the mother took with her to the village after the ritual and it was the *ahihi* that the mother was left with when the child sickened and died. The child I had been looking at for several months and that died of gastro-enteritis was nothing but an *ahihi* and it was for that reason that it wasted away and could not live. The part left in the stick and stolen by the fairies was actually the child's *hamo*, its body. Emphatically, therefore, the Orokaiva believe that *ahihi* can be corporeal and that *hamo* can be incorporeal.

Let us now consider more precisely the transaction between deceased and infant that may be called transmigration of souls, which is mediated through the land. Let us start with the death of a man of the Seho clan who was called Jarata (1). Jarata's spirit stayed on the land he had been cultivating at the time of death. Some six years later, Jarata's brother lent this land for a season to Gilford, the husband of a classificatory sister. Gilford's wife was pregnant at the time. When the infant was born, it was named by the man who had lent the land, and was given the name of the dead brother, Jarata. As far as I understand, the effect of this act of naming was to attach the *ahihi* of Jarata (1) to the infant, Jarata (2). (A male infant may obtain its name from either its mother's or its father's patrilineage.) But in addition to *ahihi*, the baby had to be given bodily strength and vigorous growth, in other words, it had to have *hamo*. This could be obtained only from the garden where Jarata (1) was still present. Jarata's *hamo*

619 have numbered several thousand at least (nor did they have a
721 'distinct dialect and a uniformity of cust m' that might indicate
634 that they by themselves constituted a tribe).

Every Orokaiva person is recruited by birth to the clan of his
851 father. All members of this descent unit claim but cannot trace[1]
611 common patrilineal descent from a usually eponymous ancestor; they do not always share the same plant emblem (erahu)[2] commonly held by patrilineal groups. A large number of clans are included among
614 the mountain Orokaiva; clan membership does not often overlap with tribal membership (though see Williams 1928:406; 1930:154). It is very rare for the clan to act as a political unit, whatever its functions in the past. Williams (1930:102-8) has in mind a different kind of unit (a small, usually localized group 'united by feelings of actual kinship', scarcely more distant than nuclear family relationships) when he says the clan was 'co-operative... in respect to ceremonies and feasts, and more importantly of fighting'.

[C21] There are several clans represented in the great majority of the present villages and fragments of the same clans - what we call clan branches[3] - will be found scattered among similar composite villages, often a considerable distance away.

Clans are not linked to form a wider descent group. Some members of 2 or more distinct named clans, whose ancestors were all at one time known by the one clan name, sometimes profess closer ties to one another for this reason. Jegase clan, for instance, is said to have formerly included groups which have become independent clans.

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1 This disagrees with Williams' description (1930:108) which shows no clear distinction between the clan and lineage (see Royal Anthropological Institute 1960:88-90).

2 Data from Awala and Wasida villages (see Williams O.83; and Appendix D) differs from the information from Inonda (Crocombe and Hogbin 1963:16).

3 Note that Williams (1925:410 and 420) uses either the term 'local clan branch' or 'subclan' to denote 'an incipient clan' which has moved away from the parent group but retains either the original clan name while acquiring a new plant emblem or the original plant emblem while assuming a new clan name. Elsewhere (1928:125) he describes how some clans occupy several villages or parts of villages. Some 'branches' or 'sections' may have adopted a distinctive name or taken possession of the subdivision of former clan land they occupy, while others may not yet have taken either step (ibid.).

Householders with affinal and kinship ties to the bride's mother (category 5) received a larger share of the bride-wealth per household than all others except those of category 1. Moreover, the brother of the bride's mother, another close patrilineal relative of the mother and the husband of the bride's mother's sister (with whom the bride had stayed while her father was at the war) were given cash. These three men received comparatively large shares of other components of the bride-wealth. One of the reasons the households of this category received comparatively large shares may have been that the bride's mother's clan (Tandai'undi) from Ajoro village had formerly transferred rights to a substantial area of land to the Andiriha sub-clan in Inonda. The Inonda people are afraid that if the land is reclaimed, a court may uphold the claim and they therefore attempt to remain on friendly terms with Tandai'undi clan and Ajoro village. This appears to be manifested by generosity in their exchange relationships with Ajoro. 583

The bride's sister's husband and his father (category 6) received small shares.

The only man who received a share but who had no genealogical relationship to the bride was a settler on the Girua land settlement scheme where the bride lived (category 7). His inclusion indicates a flexibility in the exchange system wherein residential proximity without historical or genealogical relationship permits the establishment of exchange relationships.

VI

Less than half the cash demanded was paid and villagers considered that the value of other components of the bride-wealth was well below the target set by the bride's father. At the time they said that more cash would be paid when the groom's supporters sold land to the Administration, but by September 1965 no sale had been effected and no further bride-wealth had been paid. The bride's brother regarded the exchange as complete, but said that the bride's group would have demanded full payment if the groom's father had been alive.

The couple express intent to marry in a church but it is doubtful whether this will happen and even if it does, no additional payment will be made. In February 1964 the groom prepared a customary feast known as pene to mark the birth of his first child but this was not part of the bride-wealth. It was shared by the bride's father, brother, and the other household head of the Joremba'embo lineage in Inonda and her mother's brother from Ajoro. [585] [851]

583 These people were expected to return a feast of similar size for
[85] the groom, in contrast to the bride-wealth for which no return payment is expected.

VII

583 The economic consequences of the payment were greatest in four
613 households - those of the groom and his parallel cousin, both of Jegotumo lineage, who contributed most; and those of the bride's father and brother, both of Joremba'embo lineage, who received most. Other households' contributions to, and shares of, the payment were minor by comparison. Members of a lineage did not act as a unit for the purpose of the marriage, nor was each member expected to contribute to, or share equally in, the payment, or even to contribute in proportion to his wealth.

583 This was not an ideal situation in which to investigate the
614 extent to which the Andiriha clan functions as a unit, because the marriage was within the clan. However, it was by no means a clan affair. On the one hand, Andiriha households from Hanakiro, a village distant from Inonda, took no part, and on the other, heads of households which participated in the exchange were drawn from about 20 different clans. Households from Andiriha lineages other than those of the bride and groom did not contribute significantly more to, or receive significantly larger shares of, the payment than households of other clans.

583 The range of genealogical connections between the groom and
602 heads of contributing households was extremely diverse and there was a similarly wide range of relationships in the recipient group. It is therefore difficult to determine with accuracy the extent to which genealogical relationships influence obligations between households and also the extent to which a particular type of genealogical relationship implies a particular degree of obligation. Adoptive relationships and distance between households appear to modify the extent to which genealogical relationships entail obligations.

583 Co-residence in a village may also have some influence. Some
621 people, though not all, from each of Kakendetta, Hohota I, Hohota II and Usio villages contributed to the payment, but nobody from these villages received a share. On the other hand, no member of Mosou, Ajoro, Sewa or Jegerata - villages which received parts of the payment - made a contribution. Inonda was the only village in which there were both contributors and recipients. This may indicate that membership of a particular village was a factor determining the group with which a household was aligned and may

20: Schwimmer E-5
(1966-1967) 1969
QJ23 Orokaiva QJ23

CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 651–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [715] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.

● 851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

851 marriage is in force; he is, in addition, considered to be the genitor of all her male offspring though not her female offspring.

842 It is obvious that the Orokaiva know the 'basic fact' that when a man and woman have sexual intercourse, the birth of a child often follows and that the latter, in common experience, does not occur unless preceded by the former. The recognition of this fact does not impel them to adopt a genuine 'theory of physiological paternity'; their basic theory remains that of spirit entry which is deemed essential to the conception of all children, whether male or female. The notion of physiological paternity is introduced only to solve a somewhat different problem: why the sexes differ in physiology and legal status. The answer runs as follows: the male is believed to have a special quality (*iwo*), not shared by the female. This is a strength or power enabling the male to play his distinctive roles and it is transmitted by a man to his son in the 'male blood' which enters the mother in intercourse. This is the *iwo* of the lineage. As women do not receive this type of blood, they cannot carry on the lineage: filiation is patrilateral. Having only the 'weaker' blood of their mothers, they become women.

842 562

842 Leach's essay on 'virgin birth' does a good deal to illuminate the Orokaiva case. The Orokaiva, like Christians and the people of ancient Mediterranean societies, believe that some births are the consequence of sexual congress whereas others are not. Both cultures have a further theory according to which some children may be conceived by a 'woman sleeping alone'. Furthermore, both systems explain conception in these circumstances by a spirit entering a woman and fertilising her.

614 182 Now, as I understand Leach, in all quoted cases of parthenogenesis, a great social distance separates a father of egregious status from a mother and maternal lineage of much lower status. In some of the quoted cases, the offspring inherits the father's high status while in others, the offspring remains (as in the Trobriands) in the lower 'stratum' of the mother. The somewhat unusual Orokaiva case fits this pattern quite well. Woman is not destined to stay in the clan but to be abducted or to elope and settle elsewhere, but her children will always covet the clan's land and her brother who is expected to love her is

12: Crocombe OJ23 Orokaiva OJ23

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[For information on birthday parties, see Category 561.]

777 this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegese clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the [191] other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

731 I shall delay a general discussion on the Church until a later
777 Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Wasata. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

871 One feature that became established during the evacuation period
731 was regular schooling for the young. The extent to which the people
177 recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not [852] ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

794 When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

654 731 After resettlement in Awala and other villages, the government made no attempt to discourage the resettled people from making contact with other villages, as long as they did not begin to reside within the area that was still restricted in May, 1951.

Section 3: Morale of the Relocated Community

731 823 In earlier chapters, I have already drawn attention to the widespread homesickness of the evacuees and their insistence upon maintaining identification with the homeland. Undoubtedly, separation from this land compels the Orokaiva to abandon many of his customs and traditions of the past, because so many of these customs and traditions [852] arise out of association with the land. To give only one example, a ceremony thought to be necessary for the survival of a new-born child is, even now, performed in a family garden. Separation from the family [794] land makes such a ritual impossible. At Ilimo, traditional rituals were replaced to some extent by the unaccustomed frequency of Christian religious services which were always well-attended. This, however, was at no time accepted as a substitute for the old way of life.

731 177 Naturally, in the circumstances, people did not feel any pride or satisfaction in their situation in the evacuation camps. Once they were resettled in new villages on their own land, they felt pride in the new villages and in the "new way of life" they had adopted. Sivepo [438] was proud, for instance, of having discarded its pigs. On one occasion [628] they were bargaining to buy a pig from neighbouring Carombi which still had its pigs. During the bargaining, a Carombi man taunted Sivepo about its lack of this kind of treasure. The Sivepo people haughtily called off the sale. Such pride and interest in innovation was associated with a sense of security regarding land tenure and Sivepo's status in relation to other villages. If Sivepo had not felt secure in its ideology of the "new way," there would have been dismay at Carombi's taunt about the lack of pigs. But nobody in Sivepo doubted the rightness of the choice that had been made.

CHAPTER IX: Adherence to Tradition

Section 1: Conflicts Between Two Conceptual Systems

181 The Orokaiva of today has to act in conformity with two
177 conceptual systems, one attributed to the ancestors and the other imposed by the mission and, to some extent, by the government. Essentially the system followed today is that attributed to the ancestors, but changes have been very numerous. These changes have mostly been conceptualised as substitutions and additions of the old system, leaving its essentials intact. At the same time, these substitutions have been calculated to ward off criticism from mission and government, and to cope with changed conditions.

551 There is, for instance, a taboo on using the names of affines.
178 When the government pressed for the amalgamation of villages, affines frequently found themselves residents of the same village, which made the name taboo very awkward. The custom now is that the taboo is greatly relaxed for Christians; the baptismal name has only a mild taboo attached to it, while the severe taboo on the Orokaiva name bestowed at birth has remained unchanged. In dealings with Europeans, who do not respect the taboo (even though affines of a person are present), only the baptismal name is used. In the village, the Orokaiva names are now heard very rarely indeed.

464 The temporary labour migration of young men (who sometimes
167 leave wives behind in the village) continues a traditional pattern of
178 behaviour as young men used to go out in the same circumstances to hunt heads, but it is money they now bring back before they settle down. Bridewealth gifts have remained conceptually as they were before: there must be a pig or pigs, bark cloth, ritual valuables
178 such as shell necklaces and feathers, cooking pots, but in addition
583 new wealth is necessary: store clothes, "knives and forks" (i.e., kitchenware) and money. Here again, a change in detail has not changed the basic conception of the gift but rather has updated the details.

852 There used to be a ceremony to which a boy was subjected at
178 or just before adolescence. This was the time when the boy formally assumed clothing. The boy used to be given his perineal band (bo) by some adult male cognate, often the man by whom the boy had been named. (Williams, 1930: 98) Nowadays, boys wear clothing much earlier in life, but the ceremony is still held as an occasion for honouring the child. It is now called a "birthday party"; as such it has the blessing of the mission while at the same time an essential part of a boy's life cycle is preserved.

121 Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

179 At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined.

[154] In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

852 In an earlier chapter I described a ceremony for children
177 about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off on an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the
859 village boundaries. When the children came back to the village (which
179 was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little
124 different for my interpreter who had been to Martyr's School and who
177 therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

The health authorities had successfully campaigned against the [953] Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to wash taro before it was given [824] to babies. The washing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

12: Crocombe OJ23 Orokaiva OJ23

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[For information on birthday parties, see Category 561.]

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give-taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

The one age group not considered in the survey is children. Customarily the parents delegate various tasks to them as they get older, but the current picture is somewhat complicated by the fact that over 80 per cent of all children in the area receive at least a few years' primary schooling. Since the type of education provided has little direct bearing on village life or economy it is not uncommon for such children to profess some disdain for village tasks and the extent to which they assist their elders frequently depends upon the degree of parental authority. Children up to the age of about ten years normally play around the village in the morning and evening, going down to the creek during the hottest part of the day, when they might do a little fishing. If they accompany their parents to the garden they are left in the garden shelter or under the shade of a tree and the older ones are directed to look after the younger. Otherwise the only jobs they appear to do regularly are fetching water and tending the fire, although the older girls are given such household tasks as washing dishes and also attending to infants. Boys over the age of about ten years may hunt, build traps in the forest and do some of the more hazardous jobs like scaling trees for green coconuts, while both they and the girls are called upon to assist in pulping coffee. For those attending school, most of these activities are restricted to the weekends and holidays; even then they may resist their parents' requests for assistance, preferring instead to do a little hunting or fishing for their own amusement or to picnic together.

561 [871] 857

<u>The weekly pattern, daily routine and duration of activities</u>

It is customary for ethnographic surveys to devote a section to the description of a typical working day and, in its treatment of the Orokaiva, Williams' account (1930:21-31) is no exception. What he considers to be a normal routine comprises an early breakfast from the cold remnants of the previous evening's meal followed by the departure of family groups to their gardens where they pursue their various tasks. By noon these are completed and most families are back in the village to rest in their houses for an hour or two. 'The real activity of the village commences at about three o'clock' with the preparation of the evening meal by the women, the men meanwhile restricting themselves to sedentary tasks or conversation. This is eaten near nightfall and a period of conversation or informal entertainment follows until everybody retires to sleep. Such a routine may be modified by climate, ceremonial activities and the occasional demands of the Administration and recruiters.

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Regardless of whether the daily routine in the 1920s fully conformed to Williams' description, the present pattern is substantially different, not only for those activities which are directly related to the increased commercialisation of the economy and interaction

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(11) Other subsistence activities. The other subsistence activities are construction of houses and other buildings and the preparation of tools and equipment such as spears, sleeping-mats and string bags. The latter activity occupies, on average, about 1.5 man-hours per week with no seasonal variation. Over one-third of this time is accounted for by women making string bags. More than one-quarter is spent, mostly by women, collecting and weaving pandanus leaves into mats and over one-tenth in sewing clothes. Men's tasks in this sphere include the making and repair of axe-handles, spears and fishing nets and the weaving of coconut-leaf baskets. House construction is carried out almost entirely by men, except for the preparation of roof-sheets from sago-palm leaves, in which women may assist, and it occupies about 2.0 man-hours a week. During periods I and II, several people were building houses on the new village site. For the most part, such activity was not intensive; some continued to live in the old village and from time to time worked on their new houses, while others built temporary houses on the new site and lived in these while erecting their permanent houses. Not all construction, however, was subsistence oriented. In July and early August the men spent 189.6 hours erecting the copra-drier and in period III the entrepreneur spent 3.2 hours on his new trade store. (Also in period III, 33.1 hours were spent building the chapel, but this was recorded as 'church work' and is included under 'external agencies' rather than 'construction'.) The amount of time shown as spent on construction of houses, garden shelters and the copra-drier is much higher than the time that would be spent on building in most years. This is due to the unusual circumstances during 1964 of the decision to build the copra-drier and the reconstruction of the village; normally, individuals might build new houses only once in five years. Thus, the annual rate of house-construction would be only about one-fifth of the 1964 rate.

The amount of time expended by individuals in household tasks - cooking, washing and collecting firewood - as shown in Table 7:3 - is understated. Owing to problems of observation during periods I and II when the village was on two sites, cooking was rarely recorded. As a rule, wives prepare two meals a day; breakfast requires 0.8 hours and the evening meal takes 1.5 hours on average. When a midday meal is prepared, the mean time taken is 1.0 hours. Thus, wives are likely to spend at least 2.3 hours a day in cooking, or 16.1 hours a week, and it is clear that cooking is the most time-consuming task for them. When the figures are calculated incorporating this average figure, the mean time spent by individuals on household tasks appears as 10.1 hours rather than 3.8 hours. (This does not include the important contribution made by children, particularly young girls, who, from the age of about five, fetch water and wash pots and, by the time they are about twelve, assist in preparing meals.)

development of each of the small local co-operatives. These were all organized along similar lines but the following description applies specifically to the Gombe Co-operative which (to distinguish it from Samuel Ungega's venture) was renamed the Yega Co-operative.

The executive committee of the co-operative consisted of five members: a chairman who was a well-known elder and later became the acknowledged leader of the Yega, a secretary who was a younger man of some education and in good standing with the mission authorities, and three young and energetic members, two of them ex-servicemen who had had some post-war agricultural training at Dogura. This committee was elected by a general meeting of Yega people. Its function was to decide which land to use, when to change areas of cultivation and when to work: co-operative work days were Tuesdays and Saturdays when all people (even school children on Saturdays) were supposed to work on the co-operative gardens. At certain times, such as harvesting, extra work was necessary. The committee made the decision when to call for such extra efforts. In addition, the committee appointed people to other set duties and supervised the performance of these duties. Such positions were:

i. jobmaster, who allocated work;

ii. farm leaders, who kept farm records,[1] supervised sowing, harvesting and other technical aspects - these men had all had some agricultural training;

iii. huller operator. A rice huller was acquired and installed at the western end of Beporo village;

iv. toolkeepers and timekeepers. They kept tools in good repair, and rang the bell at 8 a.m. for staring work, at mid-day for prayers and at 5 p.m. for knocking off and prayers. Although people then lived in villages stretching along about three miles of coastline, and the only bell was in Beporo village, it was stated that in the early days of co-operative work most people were punctual; after the first year there was a gradual slackening in enthusiasm.

The secretary kept a roll book in which the names of all workers were entered. Each work day he walked round the gardens and ticked off the names of those present. There was no attempt to discriminate between hard workers and slackers. The person who worked for one hour received the same credit for attendance as one who

[1] Unfortunately no written records of the co-operative were located.

121 Much depends on the success of the policies now being advocated by the government. If these are successful in raising living standards and hold promise of yielding the wealth and power expected of them (that is, a gradual increase of wealth and power), then the direction of change observed since the war will continue to be followed. People will then be willing to make ever more drastic modifications of old ritual and finally, perhaps, the traditional conceptual system will break down in favour of a different system. On the other hand, Orokaiva are not unprepared if these promises remain unfulfilled and if living standards should actually drop again, a possibility by no means to be ruled out as the economic future of New Guinea export products is very uncertain. In that case, millennial movements, relying on traditional magical procedures, are an ever-open possibility.

177 At the present time, Orokaiva are not taking a defensive position about their abandonment of old customs, as they regard this a reasonable consequence of accepting the "new day." Nor do they act defensively when they observe traditional custom. They reinterpret such observance by means of the kind of ambiguities I have outlined.
[154] In fact I cannot conceive of any situation in which an Orokaiva will behave defensively. I would not call their ambiguities rationalisations either: when they use terms like "birthday party" or "practise," they are not rationalising their ceremonies as part of a new Christian way of life but they are merely saying that these ceremonies are capable of bearing a second meaning, in the context of a Christian system. Upon further inquiry, the anthropologist finds that his informants can explain the original system in much detail whereas a concept such as that of a "birthday party" in the Western sense is left in a total vacuum, as the day and even the year of birth of a child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

852 In an earlier chapter I described a ceremony for children
177 about to start their new school year. It was a kind of farewell feast, which certainly made the children feel that they were off to an important assignment to an alien world. But it also carried a second kind of message: that the world of the school begins outside the
859 village boundaries. When the children came back to the village (which
177 was every night) they resumed their ordinary roles in the Orokaiva scheme. The children felt no conflict of loyalties inside the village; village life had been sufficiently adapted to remove glaring inconsistencies between the rules of village and mission station. It was a little
124 different for my interpreter who had been to Martyr's School and who
177 therefore knew various Christian concepts unfamiliar to other villagers. This made him feel a little superior when he talked to me; he would tell me what "the others" believed, adding that he knew how matters

12: Crocombe OJ23 Orokaiva OJ23

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[For information on birthday parties, see Category 561.]

21: Belshaw E-5 (1951) 1951 OJ23 Orokaiva OJ23
Mount Lamington

731 that was uppermost in the people's minds—to return to an environment of their choosing. In many cases families had been separated. Many close relatives had been killed, and in some cases it was not known whether such relatives were alive in other camps or not. Although short visits to old villages and gardens were sometimes permitted, the devastation that was seen there was always worrying, and time was not long enough for anything to be done about it. The future was uncertain; and there was always the underlying question, often expressed, "Will the volcano blow up again?" Although the people showed no signs of nervousness in the danger area, they are still not confident that our assurances of their safety outside the perimeter are correct—we have made mistakes before.

[158] It is perhaps surprising that, given this worry and tension, and an apparently highly-strung people, there were not more cases of mental derangement. Those cases I enquired about proved to be either long-standing affairs or temporary disturbances which seemed to pass. On the other hand, there was much excitement in the camps, and quarrelling and violence. Every move of the administrative staff was watched with interest, crowds would gather to hear the latest news. The presence of large squads of native police in the camps led to friction, sometimes over women, sometimes through a general resentment at being ordered about. [684] Court cases, and administrative cases settled out of court, were mainly charges of violence against wives. Some of these were led up to by sexual misbehaviour, but in many cases it seemed that there was nothing more than irritability over some [961] domestic misdoing, such as being late in carrying water. Children were frequently cuffed and beaten, and I often saw little wrongdoers being hurried away by older brothers or sisters to prevent a visitation of parental wrath.

731 This general irritability was carried back into the villages, where worry was not very much less than in the camps, and even the degree of daily control by European 657 authority was maintained as far as possible. For here administrative officers tended to enter into the minutiæ of daily life, marking the spots where the houses had to go, decreeing the layout of the village, often when the people thought they would be [578] better employed elsewhere. An example of village violence occurred in the new Popota while I was there. At this time women with small children were expected to remain at Ilimo camp until husbands had built them adequate shelters. Many of the women resented this, and some slipped into the bush and back to their husbands. In this particular case the baby lost a little weight when it returned to the village. The husband told the woman that she should have stayed near the clinic in camp. The women, resentful at this lack of appreciation of her presence, lost her temper and rushed at her husband with a knife. The husband swung at her head with an axe, and mother and baby ended up in a Mission dispensary which had been set up some distance away. To my mind this incident sums up many of the relevant points—the impression made by the new services, the urgent desire even of the women to be getting on with the job, and the domestic tensions and irritability that resulted from the situation.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[846] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[864] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

Children were trained by their parents in the prevalent system
867 of custom and belief, as modified by recent changes; they maintained
869 their traditional regard for their elders, not regarding their school
177 knowledge as giving them any claims to superiority. Their elders did, as far as I know, make no use of the knowledge their children gained at school; my two interpreters were the technicians when letters had to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly expected to help their kinsfolk, especially if their knowledge had
602 yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

The penalty threatening an absentee who neglected his kin had
[626] to be paid when that absentee returned; especially when that absentee
[423] wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

For those who remain in the village, the sanctioning mechanisms
626 are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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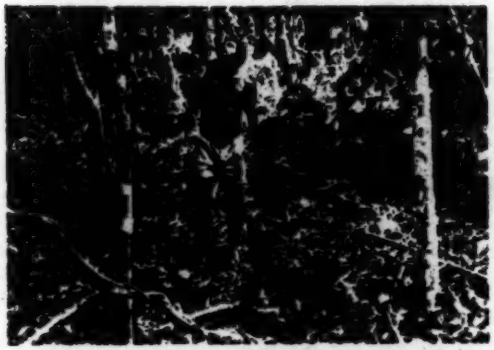

Plate 5. Men are responsible for the initial clearing of a new garden site. Boys acquire the appropriate skills by assisting their elders.

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Plate 6. Women are responsible for the final preparation of the garden site prior to planting. Here, following an initial burn, the debris is being piled around the tree stumps and larger timbers to burn them a second time.

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of his affines as this one. One reason why I employed the young woman as second interpreter was that nothing would induce him to open his mouth when I wanted to talk to his classificatory father-in-laws. In all significant respects, then, he offered little challenge to accepted tradition.

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621 village, including ourselves, were expected to fulfill reciprocal
571 obligations in the community; the acculturated young were certainly
602 expected to help their kinsfolk, especially if their knowledge had yielded cash. Even those absent on jobs in town were always asked (and occasionally expected) to help. There was only one partial escape from community obligations and that was to live outside the village. Migrants knew that whatever possessions they had amassed away from home would soon have to be shared out if they returned to Sivepa. While they were away, they could more often refuse demands with impunity. But they knew that unsatisfied claims tended to be stacked up against their return. Some claims were purely try-ons. I have myself been the communicator of such claims from a Kongohambo man to his kinsmen in Port Moresby; I could see that the response to some of them was merely hearty laughter. But others, communicated at the same time, were taken seriously; some gift had to be made.

[626] The penalty threatening an absentee who neglected his kin had
[423] to be paid when that absentee returned; especially when that absentee wanted to resume possession of his land holdings. Little would it benefit him that certain lands had been left to him by his father, for during his absence, other men had been "looking after" them. If he had neglected these men, his rights would be hard to reassert; the community would give him little sympathy. If he had been generous during his absence, he could be strong in his claims; his relations would then show him benevolence. Rights could be kept warm only by constant exchanges; a moratorium of more than one year begins to be risky. While a man is in town, the exchanges seem unequal; money or clothes go to the village; some taro are sent to town (when I went to Port Moresby I was given a sack of these to carry, to be distributed by a knowing relative in town).

626 For those who remain in the village, the sanctioning mechanisms are mostly informal. Failure in one's obligations means loss of status, leads to gossip, derogatory remarks to one's face, perhaps even a harangue at night by a man at the other end in the village.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

minimised alienation of Papuan land and controlled recruitment, payment of wages and the employer's treatment of labour.

No money was devoted to public education under Murray's rule. Social improvement programmes were largely confined to village inspections, at which law and order, hygiene and road maintenance were imposed by patrol officers under penalty of prison sentences. Hamlets were consolidated into larger villages, as these were easier to patrol. Villages were ordered, for their own good, to plant commercial tree crops.[10] Education was entrusted to the missions; health services were left either to missions or to employers. In 1919, a head tax was imposed upon the Papuans.

By a gentlemen's agreement between the Protestant denominations, a specified portion of the Territory of Papua was given to the exclusive pastoral care of each of them. North-East Papua, from Cape Dulcie to the German border, became Anglican territory. The centre of the mission was at Dogura, Milne Bay District, where the first Bishop of New Guinea, Montagu Stone-Wigg, established his court in 1898. That year, missionaries were sent to set up stations all along the coast of the diocese, at Cape Vogel, Manigela, Gona and as far north as the Mambare River.

The New Guinea Mission soon set about adding to its staff by building one more advanced school at Dogura, to which it sent the most promising students from the village schools, in the hope that these could be trained as priests and deacons. The Mission thus offered responsibility to Papuans very much earlier than any other White institution in the Territory. In 1967, the bishop of the Northern District diocese, as well as a number of priests and virtually all mission teachers were Papuans, often drawn from the Northern District tribes.

Experience with miners, government and mission in the Northern District led rather quickly to the emergence of adjustment cults, notably the Baigona and Taro Cults[11] arising respectively in 1912 and 1914. Though Worsley (1957: Ch. III) classifies them as non-millenarian, he recognises them as having been a political threat to the Australian authorities. Doctrines of unity, co-operation and comradeship between formerly hostile tribes were central to the Taro Cult. Cult leaders dissociated themselves from the Christian missions and claimed a special bond with Jesus Christ. Although the Northern District never developed cargo cults of the classical type, even in later years, there is a constant undercurrent of what one may call millennial thinking, which is of great concern to the government even today.

The Second World War. A new era in Papuan history began when the Japanese invaded New Guinea in January 1942 and, in June 1942, landed at Buna, in the Northern District, with the intention of crossing the Owen Stanley Range and taking Port Moresby. They were checked at the Kokoda Trail by Australian and American forces who by January 1943 drove them from the Paupan mainland. According to Lucy Mair the Japanese were not unpopular until they began to plunder gardens and round up pigs, a course to which they resorted when the Allied navy blocked their supply lines (Mair 1948: 199). The Orokaiva mostly took to the bush where they lived in temporary shelters and grew German taro.

Army administration introduced a new tone in human relations. Australian troops, in their dealings with Papuans, applied egalitarian attitudes prevalent in

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT

(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages.

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

Orokaiva Coffee-Grower Society, a producers' co-operative formed for the purpose.

The Council is made up of twenty-six Orokaiva members who are paid a monthly stipend. However, in practice a government adviser attached to the Council appears to determine policy. Indigenous attitudes to the Council are analysed in detail in Schwimmer 1967. Together with the Coffee Society, it has offered the Orokaiva some political participation and the importance of this new departure is vividly recognised by the people.

The New Age. Since the Second World War, a great many ideas from the outside world have been communicated to the Orokaiva. I have already mentioned economic, and some political ideas; in addition, the Anglican mission began to attract many converts, especially after the Mount Lamington disaster. By 1964, the great majority of Orokaiva were baptised.

The establishment of the House of Assembly in Port Moresby, giving limited powers of political decision to Papuan representatives elected by universal suffrage, has introduced new patterns in village life: meetings with the local member, with other candidates, and with organisers acting for these candidates and presenting political argument. The personnel of the local government council tends to be deeply committed in national politics and to talk about political affairs when visiting villages.

During such discussions, the Orokaiva are beginning to learn that an end to Australian rule is conceivable and that they will have some voice in decisions relating to the independence of their own country. They fully recognise that this makes an immediate difference to the balance of power between themselves and

TABLE II/10

EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED – ADULT MALES ONLY

Approximate Period	*Education*		*Occupational Experience*	
	Seho	*Jegase*	*Seho*	*Jegase*
Nil	6	6	4	5
1 year	–	1	1	2
2 years	–	2	1	–
3 years	–	1	–	–
4 years	–	2	–	2
5 years	–	–	–	1
6 years	–	1	–	–
7 years			–	–
8 years			–	–
Over 8 years			–	4
Data vague	2	1	2	–
Total	8	14	8	14

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 437 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 438 437 9 Dr. Waddell has provided a detailed statistical table of the geographical distribution of subsistence produce (Waddell and Krinks 1968:218). This table provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969; 123–33.

871 872 797 657 648 12 The general subject of Orokaiva economic development since 1951 is very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general indication of the investments in socio-economic development is given by a table of public expenditure in the territory of Papua for the years ended 30 June 1961 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

651 proceeds to be retained by the government was paid into the [241] Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

657 Hulling, marketing and administrative costs incurred 241 in running the plantations scheme were paid from the Native [871] Education Fund. The same fund provided a coffee pulping machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in [651] the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

465 The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The [211] official in charge of the scheme visited each village to make the payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each [212] man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

C2| obscure any important differences in structure and our historical
36| data are not complete enough to permit of consistent distinctions,
[162] according to size, between 'hamlets' and 'villages'. The village
[232] of Sivepe now has a population of 120 and is linked with Binduta, several hundred yards away, and with Mahihita half a mile away, to form a unit in Administration censuses. The 3 villages, together with Awala No.2,[1] form a local government council electorate.

13| Sivepe is situated on the western bank of the Sohu River, a
49| tributary of the Kumusi River, about 25 miles by road south-west
[133] of Popondetta and roughly 7 miles north-west of the crater of Mt Lamington. It is on a jeep road leading from Kendata, high on the Mt Lamington slopes, to Awala, which lies 3¼ miles north of Sivepe on the Kokoda-Popondetta road. The minor road was constructed in about 1944 following the route of an old track. Between Awala and Sivepe it is marked by the sites of 9 abandoned villages, first visible indication of the history of close settlement on the country it traverses.

797| There were very few facilities for formal education in this
● 871| tribal area until shortly after the second world war when a number of mission schools, staffed by Papuan teachers, were established through the area and 'minor elementary education was brought to over 90% of children of a varied age range' (Belshaw 1951:2).

An Anglican Mission primary school was established at Sasembata, 1 mile south of Sivepe, in 1945 and a European teacher has been on the staff since 1951; 9 of the 13 children of approximately school age in the group we studied now attend.[2] Some children from Sivepe are pupils at Martyrs' Anglican Mission school several miles away at Agenahambo. A primary T school[3] was established at Awala in 1961 but no Sivepe children are pupils there.

Several villagers regularly attend the church at Sasembata, which is in the charge of a Papuan priest, and most make periodic use of the medical services provided by the mission sister. Some women consult an infant welfare clinic formerly available at the mission on alternate Tuesdays and some have joined a women's sewing class held on Wednesdays.

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[1] To be distinguished from Awala 2, the 'hamlet group'.

[2] The ages of pupils in the 4 grades would range roughly from 5 to 15 years.

[3] A government school for Papuans at which the curriculum is adjusted to the needs or sophistication of the local pupils - as distinct from primary A schools, attended almost wholly by European children, where the syllabus is set by the N.S.W. Department of Education.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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1 Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

2 E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A, [See Category 461, p. 28--Analyst]

464
166

6. Employment

Ten people who are siblings or sons of the householders in the 2 subclans are absent from the village. Eight are employed in other districts of Papua as clerks, policemen or technicians. Two men, a single man and a widower, have left to work elsewhere in the district.

Five of the 10 absentees are the youngest sons in their families but their absence does not seem to be directly attributable to a heavy demand on their families' land resources. Those who have left the district are people who had the advantage of local education facilities which were not available formerly and they hold semi-skilled positions which offer more prospects of permanent employment than most of the present householders had.

[87]

Only 5 adults in the sample, 2 men and 3 women, have had any formal education. One of the men attended school for 4 years, the other for only 1 year. Five of the 7 householders in the 45-65 age group were employed outside the district on European plantations for 2-3 years before the war, 3 of them as rubber tappers. These men served a total of 7 years as carriers during the war. Apart from the years of service as a paid village official or local government councillor only 2 of them have taken work since the war - 6 months each as casual labourers on a plantation near Popondetta. The 2 other householders of this age have never had paid work. The men between 25 and 35 years have spent an average of 7 years in employment outside the village as against the older men's 3 years.

464

The frequency and duration of the younger men's terms in employment are set out in Table 9.

Table 9

Years spent in employment

Household No.	From date of first employment until birth of first child			Since birth of first child		
	Total years	Years in employment	No. of jobs	Total years	Years in employment	No. of jobs
1. (e2J)	5	3.5	3	4	Nil	Nil
2. (d10J)	5	3	3	11	2.5	3*
3. (d11J)	13	9	4	No children**		
4. (e5T)	10	8	5	6	1	2
5. (e1T)	4	3	2	14	6	7

*Householder took further employment soon after our survey.
**Householder had child by first wife but lives elsewhere; he is still employed.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

principal mission stations were located at Gona, Eroro, Popondetta, Agenahambo, Eiwo and Sasembata. There are now few people not within walking distance of a church or primary school[1] or accessible to a priest or deacon.

The Christian Co-operative Movement has been the mission's only commercial venture in the area. It was initiated at Gona in 1946 and comprised a number of small, village-based co-operatives. The Rev. Alfred Clint was recruited specifically to organise these, and his activities led to their rapid growth among the Orokaiva,[2] the collection of large sums of money and the appearance of many informal societies. As the scheme was primarily concerned with the production of annual crops - rice, peanuts and traditional food crops - large gardens, frequently exceeding twenty acres, were established and worked communally.

In 1947 DASF established a station at Popondetta and attempted to legalise and supervise the development of the movement. A variety of new crops, including oranges, mandarins, pomelos, tomatoes and cucumbers, were introduced through the station by free distributions of seeds.

Despite early enthusiasm no societies survived beyond 1953. This was due partly to loss of the leaders at a critical stage, partly to the fact that whereas Rev. Alfred Clint stressed the Christian aspects of the movement and viewed the introduced crops largely as a means of dietary improvement, the people sought economic advancement, particularly cash income. Moreover, appropriate processing equipment and outlets for the rice were not provided. Cult and protest aspects in the movement have also been identified[3] and a lack of achievement in this context might also have hastened its dissolution.

The role of the mission has been essentially that expressed by the Dominical command - 'Go preach, teach, baptise'.[4] Schooling and evangelism were closely related and only since 1947 have real efforts been made to improve the quality of secular education.[5]

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[1] Belshaw (1951a:2) estimated that more than 90 per cent of the children over a varied age range were receiving some sort of elementary education.

[2] Rev. Alfred Clint's movement is described in detail in Dakeyne 1966a. The first co-operatives to be registered in Papua-New Guinea were the Yega, Gona, Garara and Buna co-operatives, all in 1949.

[3] Belshaw 1951b:250; Crocombe 1964:29-30.

[4] See Cooldrake 1964:1-6.

[5] Initially by attempts to standardise the syllabus and subsequently by drawing increasingly on syllabuses prepared by the Administration's Department of Education.

491 station with Boru on the main road near Awala and passing within a
[499] mile of Sivepe, but it was not completed by the onset of the wet
season. It was intended that this would be used by the OCGS and
[361] other purchasers of produce. This was the main reason for the
Sivepe people's decision to move their village to a site within
200 yards of Sasembata mission station.

797 Sasembata mission is a head station of the Anglican mission.
[743] Among its facilities are a church, administered by an Orokaiva
priest, a hospital and infant welfare clinic run by a Papuan
[871] medical orderly but supervised from the Administration hospital
at Saiho, and a primary school with 400 children on the roll.[1]
The school includes classes up to Standard V and is headed by an
Australian with the assistance of ten Papuan teachers. A small
trade store is operated by Oro Ltd at Kongohambo village adjoining
the mission station.

621 Sivepe itself is laid out as a line village, with lineage
members tending to occupy adjoining houses (see Map 4). The houses
[342] have a mean size of 229 sq ft and are built entirely of local
materials, with the exception of nails which are now commonly used.

[125] Three clan branches are represented in the village and two of
these, the Jegase and Timumu clans,[2] comprised the survey sample
(55.3 per cent of the total village population of 114 in January
1964), the characteristics of which reveal them to be representative
of the population as a whole.[3]

166 The population of the sample declined by 20.6 per cent, from 63
464 to 50 persons, over the survey period. Ten of the 17 departures
migrated to other villages and the rest sought wage employment
within the district or in Port Moresby. This continuing out-
migration intensified certain characteristics of the village's
labour force, for by January 1965, 37.8 per cent of the potential
adult male labour force was absent, the majority on a long-term
basis in unskilled or semi-skilled work or low-ranking positions
in government service.[4] In three cases, wives and children remained
in the village and were supported by close kin. In January 1965,
there were only two men remaining in the 20 to 34 years age groups.

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[1] An estimated 80 per cent of the children in the area receive some schooling.

[361] [2] Clansmen also reside in twelve other villages, all within a radius of 3.7 miles of Sivepe.

[3] See Appendix 1 and Fig. 4:1.[A]

[4] See Appendix 2.[B]

A, [See Category 163, p. 307--Analyst]

B, [See Category 162, p. 39--Analyst]

C, [See Category 166, p. 308--Analyst]

The average size of households[1] is 4.5 persons, otherwise expressed as 2.4 labour units.[2] Of the fifteen households in the sample at the beginning of the survey, only four had individual holdings of cash crops and one man started a holding during the survey (coffee in all cases). Everybody had rights of access to a communal rubber plantation which was tapped by individuals on a rota system.

Most household heads have worked for wages as unskilled or semi-skilled labour (plantation workers, rubber tappers, domestic servants and labourers for the Australasian Petroleum Company). The highest level of education reached by any householder was standard II.[3] Standard IV is the highest level attained within the sample (including children), although one absentee completed standard VI at a government school at Kokoda.

Although the sample includes the local government councillor for Sivepe and the adjoining villages of Binduta and Awala, he only recently arrived in the village and exerts limited authority.[4] The village as a whole possesses no universally accepted spokesman or leader[5] and the repeated failure of communal ventures[6] may be related to this fact.

Economic holdings

Within the subsistence sector, a key factor in the pattern of exchanges is the fluctuating resources of particular foodstuffs in production at a given time in a given household: when an individual has no producing taro he is dependent on others, when he has excess he distributes. Significantly, at the time of the survey of

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[1] For the purposes of this survey, a household is a group of people gardening, cooking, eating and budgeting together. It is basically the nuclear family, perhaps including unmarried kin or widowed or divorced parents (although these may operate as independent households). The household invariably resides under a single roof. Cases of two households living together occur and their frequency in Inonda helps explain the larger mean size of house.

[2] Labour units were calculated on the following basis:

Age	5-9 years	10-14	15-19	20-44	45+
Male	0.1	0.3	0.8	1.0	0.8
Female	0.2	0.4	0.7	0.8	0.6

[3] See Appendix 1.4

[4] See Rimoldi 1966:55-6.

[5] One man, adopted into Timumu clan, is asserting himself increasingly through his generosity, organising ability and industriousness.

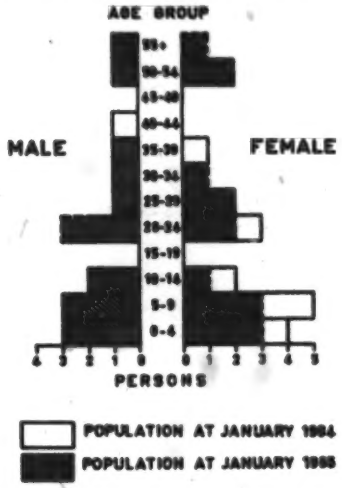
[6] See pp.44-5 and Rimoldi 1966:84, 107-8.

A. [See Category 871, p. 307--Analyst]

S: Waddell & Krinks B-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

FIGURE 4:2

INONDA: AGE-SEX STRUCTURE
SHOWING NET CHANGES JANUARY 1964-JANUARY 1965



GZ1 non-agnatic ties have led to close relationships with people in Ajoro, Sewa, Mosou, Urio, Jonita and Hohorita.

463 As in Sivepe, most of the men have had labouring jobs and two had also been teachers for the Anglican mission - one for 27 years, the other for 6 years, including 4 in New Britain.

871 Three household heads, all over 40 years of age, have had no education. One household head and one woman reached standard V and the woman's husband completed standard IV. Two young men, one a household head, served as farmer trainees at Popondetta Agricultural Station, and another completed eleven months of the course at the aid post orderly training school at Saiho.

554 In addition to his six years with the Anglican mission, one of the ex-teachers, a man of 35, was for two years local government

The one age group not considered in the survey is children. Customarily the parents delegate various tasks to them as they get older, but the current picture is somewhat complicated by the fact that over 80 per cent of all children in the area receive at least a few years' primary schooling. Since the type of education provided has little direct bearing on village life or economy it is not uncommon for such children to profess some disdain for village tasks and the extent to which they assist their elders frequently depends upon the degree of parental authority. Children up to the age of about ten years normally play around the village in the morning and evening, going down to the creek during the hottest part of the day, when they might do a little fishing. If they accompany their parents to the garden they are left in the garden shelter or under the shade of a tree and the older ones are directed to look after the younger. Otherwise the only jobs they appear to do regularly are fetching water and tending the fire, although the older girls are given such household tasks as washing dishes and also attending to infants. Boys over the age of about ten years may hunt, build traps in the forest and do some of the more hazardous jobs like scaling trees for green coconuts, while both they and the girls are called upon to assist in pulping coffee. For those attending school, most of these activities are restricted to the weekends and holidays; even then they may resist their parents' requests for assistance, preferring instead to do a little hunting or fishing for their own amusement or to picnic together.

561 [871] 857

<u>The weekly pattern, daily routine and duration of activities</u>

It is customary for ethnographic surveys to devote a section to the description of a typical working day and, in its treatment of the Orokaiva, Williams' account (1930:21-31) is no exception. What he considers to be a normal routine comprises an early breakfast from the cold remnants of the previous evening's meal followed by the departure of family groups to their gardens where they pursue their various tasks. By noon these are completed and most families are back in the village to rest in their houses for an hour or two. 'The real activity of the village commences at about three o'clock' with the preparation of the evening meal by the women, the men meanwhile restricting themselves to sedentary tasks or conversation. This is eaten near nightfall and a period of conversation or informal entertainment follows until everybody retires to sleep. Such a routine may be modified by climate, ceremonial activities and the occasional demands of the Administration and recruiters.

512

Regardless of whether the daily routine in the 1920s fully conformed to Williams' description, the present pattern is substantially different, not only for those activities which are directly related to the increased commercialisation of the economy and interaction

512 178

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

Appendix 1

Sivepa and Inonda: characteristics of the samples

(i) Demographic

	January 1964	Births	Deaths	Arrivals	Departures	January 1965	Net change
Inonda	35	nil	nil	3	7	31	-11.4%
Sivepa							
Village	114	3	2	3	20*	98	-14.0%
Sample	63	2	1	3	17	50	-20.6%

(ii) Household

	No.	Size		Labour units		With individual cash crop holdings
		Average	Range	Average	Range	
Inonda	9	3.9	1-6	2.0	0.8-3.4	4**
Sivepa						
Village	23	5.0	1-10	2.5	0.0***-4.5	10#
Sample	14	4.5	1-7	2.4	0.8-3.8	4#

(iii) Educational experience of the sample household heads

	None	Prep. to Std I	Std II to Std IV	Std V to Std VII	Std VIII plus	Agricultural training	Technical training
Inonda	3	2	1	1	nil	1	1
Sivepa	9	4	1	nil	nil	nil	nil

(iv) Work experience of the sample household heads

	Period##								
	Under 1	1-1.9	2-2.9	3-4.9	5-6.9	7-9.9	10-14.9	15-19.9	20 and over
Inonda	1	1	nil	2	3	nil	nil	1	1###
Sivepa	3	1	1	3	2	1	1	nil	2#

* Eleven (55 per cent) moved to other villages, the balance sought wage employment either within the District or in Port Moresby.

** One man planted 200 coffee trees during 1964.

*** An aged widow.

However, all villagers have access to a communal rubber plantation, tapped on a rota basis.

An expression of the number of years in paid work (where unskilled) multiplied by 1.5 (where skilled but without responsibility) and multiplied by 2.0 (where skilled with responsibility).

This man served 27 years as a mission teacher and has a total 'work value' of 62.

Both served as village officials (either village constable or local government councillor) for many years.

163 164 166 842 911.48

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[797] to discuss the possibilities that cause this effect. It is interest-
177 ing to note that the village of Beporo is situated beside the Gona
[871] Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

The finances of the store were under continual surveillance both by the local inspector and by the Assistant Registrar of Co-operatives in Port Moresby to whom regular reports were submitted by the inspector. A general reserve fund was maintained and was fully invested. Provision for depreciation was made every six months; this money was banked so that the provision of a new store building would be possible within about ten years.

The Cape Killerton store operated as a normal retail trading store but over three quarters of its business was conducted with its shareholders. In January 1963 there were 578 shareholders in the Gona villages co-operative store, of whom 108 (19 per cent) were Yega people. Yega shareholders purchased 34 per cent of all goods sold[1] while non-shareholders bought 13.5 per cent.[2]

The high rate of spending of Yega shareholders relative to the total membership was because the Yega people live nearest to the store at distances ranging from nil to four miles, and because the Yega probably received a higher cash income than the other groups.

The Yega had since the early 1930s been within walking distance of one of the best mission schools in the Northern District, with a European teacher permanently on the staff. In consequence young Yega men, who almost without exception left the villages to enter paid employment, were able to obtain skilled and semi-skilled jobs. In a sample group of 18 such wage-earners interviewed, the average remittance to relatives and friends in the village during 1962 was $110 p.a. As 40 per cent of the adult male work force was absent in wage-employment, a considerable amount of cash was being injected into the Yega economy. In addition, some Yega obtained a regular cash income from produce sold in Popondetta market (see Dakeyne 1965:102 ff.).

Expansion of membership in the G.V.N.S. Co-operative had almost ceased in 1964: 561 members in 1958 increased to 578 in 1961. As a branch store was opened at Buna in 1962, effective shareholder support for the Killerton store seemed likely to diminish. In any event there could be no major increase in shareholder numbers among the Yega, for nearly every adult Yega man resident in the area was already a shareholder in the co-operative. The bulk of the store's business was done with its shareholders but non-shareholding friends, such as members of a shareholder's family or visitors from the towns, were asked by shareholders to use their share numbers when making

[TEXT CONTINUED ON PAGE 67]

[1] Calculated from the rebates given in December 1962.

[2] Calculated on the basis of sales for the months October-December 1962.

CHAPTER 1 - INTRODUCTORY

Location and facilities

131 Inonda is situated about eleven miles from Popondetta on the Oro Bay road. Up to the present, access to Popondetta has been dependent on the state of the Girua river but with the completion of a bridge later this year all-weather access will be ensured. Inonda lies within the Orokaiva culture area and is served by the Higaturu Local Government Council. Administration patrols visit the village once or twice annually.

368 The nearest school is about six miles away across
[811] the river at Hohota. Some children attend this school spasmodi-
[787] cally and a few board at church schools at Popondetta or Embi. Others do not go to school at all. There is an Anglican church in the village though it is little used except when an itinerant priest happens to be passing by.

1130 Kerosene, tobacco, sugar, salt and other household
[366] requirements are usually purchased from a small trade store about three miles distant but larger purchases are made in Popondetta. There are four main items of traditional trade
1139 which appear to follow particular routes. As betel nuts do not grow well in Inonda these are bartered or purchased from inland tribes (usually through relatives) and the lime which is chewed with them is acquired from the coast. Traditional valuables (hambo) are acquired most frequently by barter with the coastal people, but birds' feathers for making head-dresses (di) are obtained from the Managalas tribes in the mountains in exchange for dogs, money and other items. The advent of shotguns has reduced the trade in feathers to those of birds of paradise and other relatively rare species. In bygone days clay pots and wooden bowls were traded from the coast in return for feathers and other valuables but with the advent of cheap imported utensils this trade has ceased.

Physical features

133 Topography: The Inonda lands lie partly on the flood plains of the Girua and Sambogo rivers and partly in the

It will be seen that the 7 household heads who have worked have spent a total of 80 years in employment. Only 20 of the 80 years were spent in unskilled occupations, the remainder (as councillors, constables, foremen, drivers, teachers) all carried some element of skill or responsibility.

The formal education of household heads is summarized in the following table.

Table 10

Summary of education of household heads

Household No.	Within own village		Within own district		Other districts		Total	
	Years	Standard reached	Years	Standard reached	Years	Standard reached	Years	Years x standard reached
1	-		-		-		-	0
2	-		-		-		-	0
3	2	1	-		-		2	2
4	5	3	2	4	-		7	28
5	-		-		-		-	0
6	3	1	-		-		3	3
7	6	2	-		-		6	12
8	-		10	8	3	10	13	130
	16	-	12	-	3	-	31	175

Patterns of work

The villagers claimed that they work to a pattern and that Monday and Tuesday are cash cropping days, Wednesday is for mission work, Thursday and Saturday are reserved for the food gardens, Friday is set aside for council work, and Sunday is a day of worship and rest. In fact, however, with the exception of men who are working for wages and have week-ends off, there is little in the way of a weekly rhythm in the organization of work. There is usually a short church service held

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

492 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogerem who was not himself an Orokaiva man. He was born about 1910 in Bako village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kawamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo [443] after the invasion was repulsed, he did not remain long before returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [871] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

Background experience

463 472 871 Education. Although the most successful group of entrepreneurs had all had considerable education (more than three times the average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 472 484 Travel. There may be a positive correlation between travel experience and trading success. All the entrepreneurs had travelled beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 472 464 Paid work. The number of years spent in paid employment correlates negatively with the entrepreneurial success of the sample, as under:

Table 18

Loans received

A $1,500 (land board)	E -	I $200 (from brother-in-law for store)	
B $178 (from younger brother for store)	F -	J -	
C -	G -	K $390 (from brother and share money for store)	
D $1,500 (land board)	H $1,500 (land board)	L -	
75%	25%	50%	

Conclusion

Analysis of the three groups with respect to variables which may be classified roughly as economic and social reveals a degree of differentiation. The data do not enable firm conclusions on whether the different variables of themselves explain the relative success of the sample in trading activities.

The most successful group had fewer economic trees than either of the less successful groups, had considerably higher liquid assets, but fewer traditional valuables. They had more tools and equipment than the traders whose stores were closed, but fewer than the traders who, in this sample,can be classed as moderately successful.

The traders with highest turnover had been in operation for considerably less time than the other two groups, and their stores were more frequently outside the owner's home village. They had received more loans to assist with their stores, and fewer loans from the Land Board than either of the other groups.

With respect to social variables the most successful traders were younger than the other groups. Directly related to their lower age was their higher level of education and their shorter experience of paid work. However, the positions they had held had carried more responsibility and status than those held by the less well educated, younger and less successful entrepreneurs.

They were as often elected to positions of community leadership as the least successful, though the moderately successful most often held such positions, and more often held more than one such position (an achievement never realised by the least successful traders).

Appendix B

The Ombi-Tara environment and population

131 [133] Ombi village is in the Kokoda sub-district about twenty-seven miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 [361] The Kumusi River flows close to the Popondetta-Kokoda road, about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 872 [369] The nearest school is conducted by the Administration at Ajeka, about two miles away. Most children of the appropriate age attend school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 438 439 The nearest trade store is at Ajeka but this is seldom open, and most purchases are made from the store operated by a European planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 137 The most important features of the climate are the generally heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

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173
[133] coral sand and lumps of dead coral. Although there are mangrove trees on the islands, there would be no possibility of growing food crops there. At some time well before the arrival of white men, the Yega moved from Baroda Deuga and founded a large village, Basabuga, on the eastern shore of Waususu Point. In Basabuga each clan was allocated a specific
[614] area in which family heads built their homes. Probably there were only three original clans, but these were joined at intervals by the ancestors of the other five clans who now make up the Yega parish. Basabuga is in an ideal defensive site, protected on the landward side by mangrove swamps to the south-east, and on the south-western side by swamp filled depressions running parallel to the beach. The sea provided an escape route to the north.

361
[871] By about 1910 when the first school was begun at Waususu Point, some clans had moved eastward or westward and settled in other coastal villages. In each village the male
361 members of a clan lived together with their
614 wives and children, and although there was a good deal of inter-clan contact, the clan village was the main social unit. The main reason for the dispersal of clans from Basabuga was probably population pressure but the enforced cessation of inter-parish warfare undoubtedly contributed. The movement
361 westward along the beach continued until about 1930. People were encouraged to move by the
[657] increasing effectiveness of Government control
[791] and by the establishment at Gona Mission of a school and hospital staffed by Europeans.

[P.12-B]

245
177 b) The production of crops specifically for sale.

c) The acceptance by the indigenes of
[654] supervision and advice from European and
[657] indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.
[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 Many Yega have made no attempt to earn
[434] cash from commercial agriculture. From the
166 time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents.

464 Forty-four per cent of all Yega men are away
178 working. Those who are married are accom-
592 panied in almost every instance by their wives
166 and children. This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. Nowadays most Yega
[466] work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 The main factor in the marked improve-
178 ment in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with
[797] those of most other New Guineans. A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on
[464] the staff. This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P16-B]

based, is alien and seems dubious to Orokaiva. The Europeans claim that a plant needs to be looked after even if it contains no spirit; to the Orokaiva this appears absurd.

Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission station) need to be constructed. The trained carpenter leads such enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

For the rest, the skills acquired by Orokaiva over the last 15 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While I could see no evidence that people have acquired mathematical knowledge of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking the Orokaiva language. The numerals are, in fact, among the main English linquistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number" for a variety of quantitative concepts, including price. Finally, one must regard as an aspect of acculturation, the introduction of many

were to hear this message all the time; yet they came to listen and speakers managed to introduce enough news and good oratory to hold general attention. Furthermore, both in discussion after the speeches and later in private, they agreed with a good deal of it. There was no compulsion about this; if they were bored or disagreed, they were apt to slip away, either with an excuse or without one. If they became really tired of a councillor, they need not re-elect him after his two-year term was over. The councillors were the first, I was told, to change the people's thinking. The "committee" were not given to such oratory; people would never have tolerated it; their job was a humbler, purely executive one. But their actions were always in pursuance of the general principles enunciated by councillors; they were made "legitimate" by what the councillors said. "Committee" was definitely not the mouthpiece of Australian authority, but of the council. This was an ambiguous position, as I already pointed out, because the courts on which the councillor depended as ultimate sanction, was Australian-controlled. Nonetheless, at the level of face-to-face relationships, which mattered most, the "committee" had to rely on his own authority.

Some were not very successful; in Sivepe, the "committee" was at the same time clan-leader and feast-leader; it was therefore very hard indeed to ignore him. In villages where the feast-leader stood aloof from the Council structure, the malcontents could gather round him and defy Council authority until the patrol officer intervened. This is what happened in Garoubi, a neighbour-village to Sivepe. Here traditional and modern authority were vested in different persons, whereas in Sivepe both were vested in the same person.

The pattern of religious leadership was much more subtle. First, at Sivepe and Inonda, as in many other places, cooperation with the mission began long before anyone was baptised or even a catechist. At Sasembata, the first phase started after the war. The Orokaiva were glad to have the mission because it provided education for their children (this was the advantage always cited) and no doubt also because of some benefits in the form of European goods. In return for these benefits, the local people helped with land and with labour for buildings, carrying, etc. The man on whose property the rice was grown before the eruption was not, and never became a Christian but died a Pagan in 1963. It was consistent with Orokaiva religious concepts to ask a deacon to bless the seeds of a European crop--the Orokaiva do not know the magic appropriate to this crop, whereas the deacon could be presumed to know.

None of the people now living at Sivepe were baptised before the eruption. After the post-eruption Sasembata station was established a large number of people were soon accepted as catechists and on 6 March, 1963, 1165 people from all parts of the Sasembata district were baptised, including some from Sivepe; there was a second mass baptism in September, 1955, and by this time at least one lineage (or plant emblem group) in Sivepe was wholly Christian. The most senior man in

this lineage was the village constable. Though the records are by no means satisfactory, it is clear that between 1955 and 1963, virtually the whole of the Jegase clan became baptised while in 1963--but only then--the majority of the Seho clan became Christian. The time lag between the clans was not insignificant, as the head of the Seho clan, who refused to be baptised, died in 1963, and it was after his death that the new leader, his son, joined the Church, together with his clansmen. It would be wrong, however, to suggest that it was only the death of the old leader which delayed conversion, because the records for the Sasembata district as a whole show 1962 and 1963 as the years that Christianity became the dominant religion in these villages. Before 1963, the pattern seems to have been similar to the present one in Inonda: one clan or faction was baptised, while the other held out. It was told that it was the old men with a reputation for black magic who felt most disinclined to abandon Paganism, as they feared it would harm their powers.

I shall delay a general discussion on the Church until a later Chapter and confine myself here to a discussion of the impact on community organisation. Undoubtedly, the eruption accelerated the development of some of the Anglican mission stations. While before 1951, the mission in that district was centralised in Sangara, the new centre was in Popondetta, well away from the populous area around the mountain. The major station still operating in the Mount Lamington area was the one at Waseta. In 1951, major stations were established at Sasembata, Agenahambo and Irihambo, while the Hohorita and Isivita stations which followed later completed the coverage. One impetus to the support given to the Sasembata station by the people was undoubtedly the active programme of the church during the evacuation period, when there were daily church services as well as church participation in the education and health field.

One feature that became established during the evacuation period was regular schooling for the young. The extent to which the people recognised this as a momentous change in community life is shown by a ritual introduced about that time and still observed at the present. In 1967, the head teacher announced that school would start on a Thursday but no pupils came. The people told him the children were not ready." The following Sunday, all the children--and only the children--gathered for a "feast"--a common evening meal at which they were obsequiously served by the adults. This was a feast to farewell them, I was told, for the next day they would go away to the school. The measured distance between the village ground and the school ground was six chains. The children were home every night and every lunch hour. Nonetheless, in a more essential sense they were leaving the village to submit to the influence of strangers.

When Sasembata station was reopened in 1951, no community organisation was associated with the church so that the mission teachers had to make contact with villages for any work they wanted done and this was arranged on an ad-hoc basis. Nowadays, there are two forms of

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

[853] The health authorities had successfully campaigned against the Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to mash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 797 The education system, like the public health system consists of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

892 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Hohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard 2 will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

871 According to the Papua Report, "The core of the curriculum is training in the basic skills of communication and mathematics." (1966: 100) Of these two subject areas, mathematics is taught by a syllabus which will probably be widely applauded by educationalists. Australia has for some years made important research contributions to mathematical education. One of the most outstanding of Australian educators, Dr. Z. P. Dienes, was invited in 1964 to prepare a mathematics syllabus for Territory schools, introducing the "new mathematics approach." In 1966, this syllabus became officially accepted and the basis of the government examinations. Short courses for practising teachers were held, in the Northern District, during the summer holidays of 1966-67. [895] The Australian mission teacher in charge of Sasembata school also went and came back with a tale which will not surprise connoisseurs of the "new mathematics": he found that the Papuan teachers grasped the principles more quickly than those, like himself, who had been well educated in "traditional" mathematics.

871 191 In the language field, the Australians have taken the fateful decision to make English the language of instruction in schools and the "universal language in the Territory." This is not the place to discuss this strange decision to which S. A. Wurm has recently devoted a clear and authoritative critique which seems to me unanswerable. (1966: 135-148) The key sentence of this critique is that the English language "constitutes a reference system to a culture whose very essence is completely alient to the natives, and it abounds in concepts they cannot even begin to understand on first being confronted by them." The textbooks used in the primary school attempt to overcome this difficulty by an emphasis on formal English, using the structural method, and devoting much attention to the memorising and to some extent the manipulation and transformation of pattern sentences. There is heavy reliance on memory work and very much less reliance on conversational English and creative expression. The teachers explained to me that this bias was inevitable in view of examination pressures. It was amazing, nonetheless, to hear Standard 6 students learning very simple pattern sentences by rote by the whole class saying 20 times or more in unison: "We are going to Paris" (wherever that is). I am not critical at all of the teachers at the Sasembata school, who achieved an impressively high percentage of passes (far above the average) in the government examinations. It is not difficult to understand, however, that these students could not communicate anything very useful in English to, for instance, myself and my wife. The system is, of necessity, a great waste of the children's intelligence. The small minority who later go to Port Moresby or enter European employment will find their knowledge of English useful but the great majority, who need to be equipped for a life in Sivepe and surrounding villages, do not benefit so much from the content of their lessons as from literacy (in their own vernacular), from their experience of the school situation, its relationships and values, and many incidental observations of white customs and attitudes which are most influential acculturative

experiences. The problem remains how ideas bearing on social and economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular. Most of my informants could help me to get Orokaiva texts spelled correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

Teachers are trained both in the mission and the government system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

The educational qualifications of the teachers are one more reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

Teachers' salaries are a subject that has continued to puzzle me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

875 spite of this vast differential, the mission continues to recruit
[465] certificated teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 hold A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin
895 colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
871 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Sasembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

652 expected to levy. He wrote his Bishop that he would not collect the tax. His letter seems to have been only one trickle in a river of
• 871 non-cooperation and I never found out whether the government prevailed over the missions.

871 This controversy casts some light on Orokaiva attitudes to education. By standards of Orokaiva wealth, parents are making a
[431] major voluntary contribution in money, labour and materials, not with the idea of "paying for their children's eduction," but in order to make appropriate return gifts for the services rendered by the mission. The principle governing this transaction is reciprocity, but not contract. Thus, the Orokaiva contribution to their children's educatin differs from a tax in three crucial ways:

(a) It is specifically given to the mission, towards whom the people feel an obligation and not to the government, to which they do not feel beholden for their children's education. (This obstacle could be overcome only if the government succeeded in explaining the Department of Education budget in the villages.)

(b) It is regarded as voluntary, according to the principle
[558] of reciprocity. People contribute from goodwill and generosity, the only possible sanction for a non-contributor being a diminution of social status. (If an education tax is levied, the sanction is refusal to admit children to schools. This rule already applies in administration schools.)

(c) Contributions are made only partly in cash, but consist mainly of labour and materials which are not readily marketable in the villages. (If the payment is entirely in cash, this cash has to be earned outside the village or by cash-cropping. Resources such as sago and blackpalm cannot be used as a contribution to education.)

I have shown at various points in this report that Orokaiva value their children's school education highly. In Sasembata district, the men worked for the mission long before anyone was baptised and their motive was, as they told me, to see that their children could
[829] go to school. When I asked why they wished this, they answered that this was the only chance for the children to be able to obtain the same wealth as the Europeans and become equally powerful. It is consistent with this reasoning that the Orokaiva have never been very disturbed by what may seem to us the strange policy of conducting lessons in the English language. It has so far been enough for the Orokaiva to see that the only Papuans who have obtained wealth and power have been those who were educated in the school and who have
[191] gained some knowledge of English. It is only among the educated Orokaiva that one hears arguments for the Papuans and New Guineans being educated in a language of their own.

Section 4: Social Services

The mission contribution to health and education has been set out in the previous chapter. It is of course the mission rather than the government which has pioneered the social services in the Territory. The first contact the Orokaiva had with Western medicine and education was through the mission sisters and the teachers trained, however inadequately, by the mission. The scholarly inadequacies of the mission teachers, though regretted, had not marred the primary aim of the church which was to inculcate Christian values and introduce some acquaintance with the arts of civilisation. If before the second world war, education was not viewed by the mission as a weapon in the struggle for economic development, it must be remembered that economic development of the Papuans was not deliberately pursued as an objective by the government or any other influential group in the Territory.

At the present time, mission education poses a dilemma. The government school inspectors express their concern over the generally low academic standard of the smaller mission schools. It has now been established as a rough rule that schools, in order to receive government approval (and therefore financial assistance and examination facilities), should have a ratio of trained teachers of at least one in three. The term trained is defined, for the benefit of the mission schools, as meaning the possession of an A certificate. Over the whole of the Northern District, one in three is approximately the average.

There has been no case where the government has actually caused a school to close down. Such action would certainly greatly anger the Anglican authorities, who argue with some force that the government has no practical means to replace the educational service of the missions. It lacks trained personnel, just as much as the mission does. Moreover, it is far more expensive to conduct a government school than a mission school and the government cannot afford this extra expense. Finally the mission argues that for the Papuan, as an essentially religious person, education ought not to be divorced from religion.

Meanwhile, the government is rapidly upgrading its own standards of training. It restricts to the utmost the intake of teachers with A certificates and encourages, by means of salary and other incentives, the obtaining of B and C certificates. It is gradually widening the scale of its operations. At the same time, the government is performing a most valuable service by giving refresher courses to practising mission teachers, thus improving their knowledge and giving them a more professional attitude to their teaching tasks. I watched Sasembata teachers who went to these courses which certainly provided much stimulus. In Hohorita, the mission conducted special classes for adults who lacked a standard 6 education. These were mostly attended by mission teachers who thus became qualified to do further study toward a teacher's certificate. The mission conducted some teachers

462 women can carry produce to market. Coffee, however, is in a different
[562] category because the bags are of a special type, supplied by the coffee
[422] factory and a specifically male property.

Section 3: Education, Occupational Skills, Money Income

241 In the last section, dealing with the division of labour, I
613 did not introduce the question whether there were differences in this
614 respect between the various social groups--lineages and clans. The
main differentiation noted by earlier authors was that between cash-
croppers and those engaging only in subsistence gardening. Now in this
respect there was no noticeable difference between clans in Sivepe:
out of 1,100 coffee trees growing in Sivepe in 1962, 503 belonged to
Jegase and Timumu and the rest to Seho, while in Inonda the coffee
growers belonged to two Andiriha lineages. In Sivepe today most men
grow coffee, and this applies equally to the Jegase, Seho and Sorovi
clans; the exceptions are elderly people. There are, however, very
significant differences in other respects between socio-economic
patterns in the Jegase and Seho clans--differences which are obvious
even on very superficial inquiry.

614 A minor imbalance in the age distribution of the two clans is
561 noticed at once from the statistics: the Jegase householders are
predominantly in the 35-45 year age group whereas Seho is predominantly
a little older (45-55 years). Hence the dance group formed in Sivepe
[535] is at present almost wholly composed of men of the Jegase clan. The
[177] age difference happens to be very significant in various indices of
acculturation, as the first school was established at Sasembata in
[871] 1945, and the custom of looking for wage labour outside the district
[167] did not become widespread until about the same time. While some Jegase
[191] people know some English, none of the Seho people over 35 speak any
at all. Furthermore, the first village constable and the first councillor
in Sivepe were both Jegase men who had taken up employment well before
the second world war. During the years they held these posts (1939-
1965), Seho had much less contact with government.

614 The statistics (Table 20)[A] show that Jegase male adults have
463 slightly more school education than Seho adults but a great deal more
occupational experience. This experience, for both clans, did not
include work requiring much formal training; it was labour on rubber
and cocoa plantations, on the roads, assistance with land surveys,
[177] laundry work, service as a "houseboy," and in the A.P.C. Nonetheless,
an intelligent man thrown into these kinds of situation can find out
a good deal about the outside world; in later dealings with external
agencies, he is able to make more informed judgments. A further
opportunity for such experience was offered the Jegase clan when the
Australian National University, which made Sivepe into a sample village
for several studies (see below, Chapter VII), decided to concentrate

A [See Cat. 116, p. 227--Analyst]

its efforts upon what were then the Jegase and Timuu clans, to the exclusion of Seho. When my wife and I came to Sivepe, Jegase at once claimed us, built our house for us and was ready to perpetuate the familiar "special relationship" before I had a chance to assess the situation.

In terms of economic development, this extra experience of Jegase did not actually make much difference. Seho grew just as much coffee; the Seho clan leader was always in the vanguard for innovations such as the Malayan rubber trees; Seho had about as much money income as Jegase, except that Jegase received more cheques from town workers married to locally resident women. It must be remembered that the educational background of the Jegase men was still rather limited and insufficient to open up the more remunerative avenues of employment. The younger generation of Seho was just as well educated as the younger generation of Jegase; in fact, the only person to have reached Form II was a Seho boy whose father had no schooling but a few years' work experience before marriage.

Finally, the leader of the Seho clan (without schooling, but with brief experience in the A.P.C. before the eruption) made up in shrewdness what he lacked in facility. Europeans who had dealings with Sivepe over land and other issues found him a tough and calculating negotiator who knew as well as anyone how to safeguard the interests of his village and press for whatever blessings of the modern age might become available. As "committee" for Sivepe, he was a stern champion of village decorum. I have seen several other villages which vowed to eliminate pigs, but in these villages one could usually still find a very tiny piglet, so small you could hardly see it, which signified the hardiness of the old dispensation; in Sivepe, one only saw dead pigs. He would have no weeds, no houses out of alignment, no late noise; whatever the Australians chose to define as the spirit of progress, was strictly enforced by this leader.

The younger people are mostly going as far as they can (up to Standard 6) at Sasembata School; so far only one has gone further. One young man, who had finished Standard 6 and a young woman who had done Standard 4, but was intellectually brilliant were regarded in the village as the educated élite; both were just above 20 years of age. They were both from Jegase households; they both helped us considerably as interpreters. It is likely that the Sasembata school produced others as competent, but they would have left for jobs elsewhere.

I have already pointed out that in Inonda there was less homogeneity. One man was markedly more educated than anyone in Sivepe; nearly all had been away on paid employment for long periods (longer than at Sivepe). The educated leader, attracting to himself other men with some education, was able to act as a kind of entrepreneur and thus two different patterns of life became established, emphasised by the persisting neglect of cash-cropping by one section. Two young and vigorous men who might well have grown coffee prefer to depend for cash on temporary plantation jobs.

CHAPTER IV: Acculturation at the Time of Resettlement

177 My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be [881] made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepa they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten.

[583] Similarly, the inclusion of money in bridewealth is an innovation which, [436] once made in a homogeneous community, is bound to become standard practise. In Sivepa the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepa, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

797 At the time of the eruption no baptisms had yet occurred at
798 Inonda, and only one, as far as I can find out, in Sivepa--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

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government driver) had gone there and continued at Martyr's school at Sangara. He survived because the mountain erupted during the school holidays. At Sivepe, some children had started going to the Jasembata school, opened in 1945, but attendance was irregular. Nonetheless, there were few people under 30 in 1966, who had not had some schooling.

Goods such as meat, sugar, tobacco were known in Sivepe at the time of the eruption, and bought in trade stores; some people used European pots and others used clay pots. By 1966, all regular production of clay pots in Sivepe had ended; they were not even included ceremonially in bridewealth. It was always the young men, away on labouring jobs, who introduced the innovations in material culture, who brought their mothers and new wives European pots, who came home flaunting European clothes, who first used nails in building their houses. In Inonda, at the time of the eruption, the young men were already wearing "trousers"; in Sivepe, this came later, at the time of the local government council. In both villages, this same association was stressed: the European cloths were accepted for village wear at the time the council started and the example was set not only by the bachelors returning from town but also by the councillors themselves. There was a councillor resident in both villages in the years immediately following 1956; it was their influence that tipped the balance in dress innovation.

At the time of the eruption, cash cropping had not yet started at all in Sivepe, but at Inonda, one man (the father of the present government driver) was already selling coffee for which he was paid $3 per bag by the government. The government also bought copra from him which he prepared by breaking up coconuts and drying them in a fire. He stopped this trade at the time of the eruption but resumed in 1954. In Sivepe, coffee growing started in 1956 on two "company" plots. It was in other words a community activity rather than a case of individual entrepreneurship. Rimoldi (1966: 84) reports that individual coffee gardens started in 1957 only after patrol officers advised against having jointly operated ones.

It is not easy to say just how much linguistic knowledge had been absorbed before the eruption, or even now. If one asks a man what languages he knows, he lists all those he has had contact with on his travels; always Motu, not infrequently Pidgin, and also often an assortment of New Guinea languages marking the spots where he has worked. Wherever a man works, he learns some of the language, but his knowledge rarely passes exacting tests. Orokaiva men who said they knew Aiga could not actually translate the Aiga texts I taped into Orokaiva. It would be most interesting to do research on the actual knowledge of these Papuan polyglots. In a country where so many languages are spoken, communication between persons with different vernacular is a crucial process. There is no doubt that travelling Orokaiva make a great effort to adapt themselves to the regions they visit. If they have personal contact with their employers, they learn a great deal from them too. From the data I have presented it is plain that travel has been the major acculturative influence among the Orokaiva.

731 Immediately after the eruption, the Sangara people decided to
[583] waive all bridewealth, so that a large percentage of the women in
[464] Hohorita were married without one. At the present time, bridewealth
[595] is reinstated, and young men go to neighbouring plantations, which are plentiful--or else further abroad--to earn them. While many husbands worked outside Hohorita, most of them were able to return home at weekends. Polygamy was pronounced before the eruption, but it seems that the polygamists became victims of the eruption and polygamy no longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly above that of Sivepe, the reasons are: better facilities during the years 1945-1951, loss of many members of the older age groups in the eruption, special efforts made by Bishop Hand at Irihambo to draw Sangara into mission teaching. This higher standard is reflected in the statistics of persons who at one time or another have been in skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the average income from coffee in Hohorita is certainly far in excess of that in Sivepe (about $100 per annum).

871 Hohorita does feel that it is held back by the present educational provisions which are little better than those in Inonda and much inferior to those at Sasembata. (At Hohorita, there is no schooling beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita people compare the school unfavourably with the government school at the Sangara resettlement block which offers Standard 6, and which, furthermore, has more highly qualified teachers on the staff. My own impression was that the head teacher at Hohorita is a very good man; some of the criticism of him is no doubt due to spite, for he is of local origin. Still, the general criticism of facilities at Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
563 villages discussed, as the population is drawn from different parts
592 of the Sangara tribe and intermarriage with other tribes has been frequent. The explanation may be found in the pressure, after the disaster, to find mates when most preferred potential marriage partners had died in the eruption. This breaking down of the endogamous emphasis after wars and disasters is, as I pointed out earlier, traditional among the Orokaiva.

423 Heterogeneity was countered to some extent by an arrangement
591 which was, according to informants, made by a popular meeting shortly
582 after the eruption. According to this arrangement women who married outside Sangara, would be allowed the same land rights as though they had been sons. This was done in an effort, so I was told, to add men to the depleted Sangara population. Men would thus be encouraged to settle on Sangara land rather than take their Sangara wives home with them. Two men from the Sasembata district are now living in Hohorita under this arrangement. They keep up normal exchange relations with their home district, e.g., I know one of them lent hambo for the kere

[A] [See Cat. 116, p. 228--Analyst]

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

TABLE 14

ENROLLMENT IN PRIMARY SCHOOLS OF THE
ANGLICAN MISSION IN THE NORTHERN DISTRICT

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Source: Department of Education, Popondetta

	1966	1967 (Est.)
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
TOTAL	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

TABLE 20

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EDUCATION AND OCCUPATIONAL EXPERIENCE OF THE JEGASE AND SEHO CLANS OF SIVEPE COMPARED--ADULT MALES ONLY

Approximate Period	Education		Occupational Experience	
	Seho	Jegase	Seho	Jegase
Nil	6	6	4	5
1 year	-	1	1	2
2 years	-	2	1	-
3 years	-	1	-	-
4 years	-	2	-	2
5 years	-	-	-	1
6 years	-	1	-	-
7 years			-	-
8 years			-	-
Over 8 years			-	4
Data vague	2	1	2	-
TOTAL	8	14	8	14

tion to the mission station. The government had demonstrated in the most tangible way that it accepted broad responsibility for the people's welfare in a time of crisis and would act with great generosity in such circumstances. The mission, which likewise had established close relations with the people of Ilimo, had subsequently remained to develop those relations.

As a control group for the study, I used the small village of Inonda, 12 miles from the crater and outside the restricted zone. Inonda differed from Sivepe in that its population was never evacuated or relocated. It continued to use its own land. The comparison of Sivepe and Inonda thus provides a measure of the effects of actual relocation as distinct from other experiences the two villages had in common. In Inonda only one-fifth of the land is arable; none of it is as fertile as the volcanic loam of the Mount Lamington foothills; rainfall is lower than in Sivepe and so distributed that lengthy droughts are not uncommon. Drainage is inferior while population density is only ten persons per square mile.

Inonda acted as host for the population of Sewa village who fled their homes on the morning of the eruption. Among the fugitives was a mission teacher who set up a school in Inonda. When he was later transferred to another district, Inonda pleaded fervently and successfully to get him back. Today Sunday services are given by a lay preacher and children attend a mission school several miles away which teaches up to grade two.[10] Interaction with government and mission authorities was far less intensive at Inonda than at Sasembata.

The third village I studied was Hohorita (population 348), 7 miles from the volcano, with soil largely similar to Sivepe's, good rainfall, good drainage, and a population density of 135 persons per square mile. Hohorita is made up of the survivors of the Sangara tribe, once 4,000 strong, which was almost entirely wiped out by the eruption. The survivors were evacuated to camps along the coast and then allowed to return to the boundary of the restricted area, where they built a village called Irihambo. They were ordered to leave this village some years later (as it was situated on crown land intended for the settlement of Australian ex-servicemen) and then established Hohorita in 1957–1959. The Hohorita people, like other relocated groups, had had intensive contact with government and mission personnel. An unusually large number entered skilled occupations, partly because the San-

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

10. Compare this with the school at Sasembata, which teaches to grade six.
11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.
12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).
13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).
14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.
15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.
16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

    With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.
17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

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TABLE II/8

ENROLMENT IN PRIMARY SCHOOLS OF THE ANGLICAN MISSION IN THE NORTHERN DISTRICT

(*Source*: Department of Education, Popondetta)

	1966	*1967 (Est.)*
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
Standard 2	1,563	1,581
Standard 3	1,278	1,298
Standard 4	1,275	1,310
Standard 5	693	708
Standard 6	488	498
Total	8,362	8,547

Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

development. By 1967 two important moves had been made: the arterial road between Buna and Kokoda was being rebuilt and linked to the main coffee-producing villages by a system of access roads, built with the assistance of taxes raised in villages. 648 657 491

The educational services have not, so far, been very closely integrated with economic development goals. Many of the schools in the Northern District are conducted by the Mission. While the objectives of many of the Mission schools are still primarily religious, and the teaching staff has only rudimentary training, some of them do prepare students for further education at the secondary level, and provide recruits for skilled occupations. The Sasembata school attended by Sivepe children falls within that category. Chances of passing a qualifying examination for secondary schooling are good and from that point adequate financial assistance is usually available to students. Villages such as Hohorita and Inonda, lacking such opportunities, and having access to only two or three years of elementary schooling, cannot hope to have any but the brightest students advance to secondary education. As the language of instruction is English in all schools, those who do not advance beyond elementary grades do not become acquainted with concepts relevant to development objectives.[12] 871 872 797 [191]

Local Government Council. The Higaturu Local Government Council, formed in 1956, serves about 15,000 Orokaiva, comprising the Popondetta, Sohe-Popondetta and Saiho census divisions. In 1966 the main activities of the 657

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

222 4 Orokaiva: *tauga*; botanical: *cycas media*; Orokaiva: *puga*; botanical: *terminalia okaria*. There are two varieties of breadfruit, called *oga* and *eumba*. They are both somewhat unusual but I failed, in spite of sending samples, to obtain indentifications.

241 5 Details of garden production are given in Table II/3. Rainfall at Sivepe and Inonda is shown in Rimoldi 1966:109; Crocombe and Hogbin 1963:100.

342 6 A plan of a contemporary Orokaiva house is shown in Fig. 3. Recent changes in house design, house construction and domestic amenities are summarised in Table II/4.

462 7 See Tables II/5 and II/6. Williams' data are taken from an unpublished manuscript and appeared first in Schwimmer 1969:226. I have discussed the Orokaiva division of labour in more detail in Schwimmer 1969: 145–50 and explained the apparent discrepancies between Williams' table and Waddell's and Krinks' statistics.

439 8 Crocombe and Hogbin (1963) provide a list of prices prevailing in this
437 trade. They report that there is still some trade in shell ornaments from the coast and in feathers for head dresses from the mountains. Informants at Eroro, on the coast near Buna, gave me details of their traditional trade with Managalasi of the nearby mountains. A Sivepe man who has hunting rights to land near Ajoro goes there to hunt birds and sell the feathers. His chances of finding any of the more valuable birds near Sivepe are remote. The difference in Sivepe and Inonda patterns (i.e. the foothills and the alluvial plains) appears from the data in Table II/7. It will be seen that Sivepe stock is to a far greater extent inherited, whereas Inonda stock is to a far greater extent acquired through brideprice (value $13), barter (value $21.60) and other exchanges (value $13.70).

439 9 Dr. Waddell has provided a detailed statistical table of the geographical
438 distribution of subsistence produce (Waddell and Krinks 1968:218). This table
437 provides clear and detailed information on the geographical range of the Sivepe exchange network. A full descriptive account may be found in Schwimmer 1969: 41–69.

648 10 An interesting picture of this period of Orokaiva history is drawn in Beaver, 1916.

795 11 Full information on these cults will be found in Chinnery and Haddon (1917) and Williams (1928). If has escaped previous commentators that Bia, who started the taro cult, was employed for some years by Monckton, and participated in various punitive enterprises with an alacrity most pleasing to his master. He was described in Monckton's books in rather revealing detail (e.g. 1921: 185, 268, 269, 295, 308; 1922: 10, 13, 65, 136, 172, 214, 216). For the present relationship between the Orokaiva and the missions, see Schwimmer 1969: 123–33.

871 12 The general subject of Orokaiva economic development since 1951 is
872 very fully covered in numerous bulletins published by the New Guinea Research Unit from 1963 to the present, and also in Schwimmer 1969. A general
797 indication of the investments in socio-economic development is given by a table
659 of public expenditure in the territory of Papua for the years ended 30 June 1961
648 to 1965 (Commonwealth of Australia: *Annual Report of the Territory of Papua for the period 1 July 1964 to 30 June 1965*, 179). The growing emphasis on educational services is perhaps the most notable aspect. Table II/8 indicates the pattern of school attendance. Table II/9 summarises the activities of the Higaturu Local Government Council; roads, water supplies and clinics are perhaps the projects most relevant to development.

101 13 The three villages have been sketched in figures 4, 5 and 6. Education and occupational experience at Sivepe and Hohorita are analysed in Tables II/10 and II/11.

Appendix B

The Ombi-Tara environment and population

131 Ombi village is in the Kokoda sub-district about twenty-seven
[133] miles from Popondetta along the main Popondetta-Kokoda road. It is situated on top of a plateau up a steep escarpment, about 250 yards from the main road. Tara is about two miles from Ombi and straddles the access road which runs through the converted land occupying part of two of the blocks. It was previously about two miles further away and was moved to its present site in 1964 after survey of the land to be converted was under way.

133 The Kumusi River flows close to the Popondetta-Kokoda road,
[361] about four hundred yards from Ombi village. Ombi village was formerly sited next to the river but was moved to its present higher location in about 1957, reportedly to escape the mosquitoes.

871 The nearest school is conducted by the Administration at Ajeka,
872 about two miles away. Most children of the appropriate age attend
[368] school daily. Several of the older children board at schools in Popondetta while some children do not attend school at all.

366 The nearest trade store is at Ajeka but this is seldom open,
438 and most purchases are made from the store operated by a European
439 planter at Awala, a distance of seven miles. Clothing and larger items are purchased in Popondetta.

134 The Ombi-Tara lands are part of the Higatura land system which contains a considerable proportion of good land with reasonably fertile soils, suitable for many arable or tree crops as well as pasture.[1]

132 The most important features of the climate are the generally
137 heavy rainfall, and the almost uniformly high temperatures and humidities throughout the year. Rainfall ranges from 120 to 150 inches annually and may well be greater in the higher areas, including Ombi-Tara. These climatic features are reflected in abundant plant growth. At Ombi-Tara rainforest covers much of the surrounding land, which is marked by a series of steep ridges.

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[1] See C.S.I.R.O. 1964.

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the side of jeep roads, as Belshaw also mentioned. The administration favoured this trend which greatly facilitated patrolling the villages. The Orokaiva always seem to have a liking for the Australian-built roads; Monckton already refers to their fondness for travelling over it and explains it gave a sense of security against possible attack by hostile tribes. Though this can hardly be the reason today, the liking remains. Over the last few years, the roads have begun to yield economic and practical advantage: trucks collecting coffee visit the villages and occasionally people can pick up rides from passing vehicles. Speed of travel is also improved for pedestrians. I shall discuss ideological aspects of this liking later.

872 The accessibility of facilities has also improved since
797 the eruption. Sivepe children now all go to the school at Sasembata mission station which teaches up to Standard 6. Inonda
[368] children were first introduced to schooling after the eruption when the Seva people joined them accompanied by a mission teacher. After this mission teacher retired, Inonda was dependent on a school at Hohota. Only a few children went to this school because it was six miles away, across a deep river, but today, after the building of a new road and a bridge, and the latest shift of Inonda village, this distance has been reduced to about three miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and the schooling past Standard 2. Sivepe's link with these facilities was by a bush track running through Isivita. Today, Popondetta is the centre, but the hospital is at Saiho, the senior college near Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved, has become the main artery. Nonetheless, for those who have to walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo are still important thoroughfares used by many dozen people every day.

Section 4: Resources

I have already referred to the main resource, owned by the
423 Orokaiva, which is their land. The Sivepe people own only about
311 480 acres, almost entirely gardening land, and very little of their land is in virgin bush. This small area is useful for certain

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

872 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Hohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard 2 will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

training schools which prepared students for examinations for these certificates.

Though many men with teacher's certificates and advanced medical training take up positions with the government, where salaries are far higher, there is still a considerable inflow of qualified Papuans into the mission ranks. One reason for this may perhaps be found in the sketch I gave earlier in this chapter of a typical mission station settlement. The educated man who takes up a job with the mission receives his reward, not only in the satisfaction of religious service and the approbation of the mission towards which he is usually obliged for his education, but also an assured social status in a community in which he can feel thoroughly at home and can set up the type of social relationships to which he is accustomed. A government position on the other hand tends to isolate and detribalise teachers and hospital workers and thus be less satisfying socially.

Finally, it should be stressed that the mission is responsible for the education of Papua's educational élite. Martyrs School, once built at Sangara where it was destroyed by the eruption, and now established just outside Agenahambo, prides itself on a higher academic standard than any of the other secondary schools of the Northern District. It is able to choose the most proficient of the products of the primary school system, not only in the Northern District, but in the whole of Papua. One man in Sivepa and one in Inonda had been to this school but neither had continued to the secondary Forms. But the church-educated élite will dominate the Northern District for some years to come, until the graudates from the new University of Papua New Guinea will take over this status.

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

TABLE 14

ENROLLMENT IN PRIMARY SCHOOLS OF THE
ANGLICAN MISSION IN THE NORTHERN DISTRICT

871
872

Source: Department of Education, Popondetta

	1966	1967 (Est.)
Preparatory Classes	1,775	1,845
Standard 1	1,290	1,307
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Note: Some schools offered classes up to Standard 2, some up to Standard 3, some up to Standard 4, while only a few schools offered classes beyond that level. Children unable to obtain transfers to schools offering classes at a higher level might stay at school for a year or more after finishing the highest available grade. This explains the unusual statistical pattern.

problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission teachers started elementary vernacular schooling in the camps.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Yali cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Mansren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 128-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

823 for advice. The tragedy is that subsequent events were unpredictable. When
[731] the blast came it was so swift that there could only have been two or three minutes' warning, and the phenomenon was so far beyond experience or imagination that the people were too numbed to panic. Good order was maintained and the refugees successfully assembled in camps in a remarkably short while. Within two days camps were operating and supplied by air.

823 As the people settled and began to take stock of events, they began to seek for
731 explanations. An aeroplane had been flying close to the mountain at the time of the blast, escaping in the nick of time. One rumour had it that this aeroplane had
[784] dropped a bomb. Most explanations were, however, religious in nature. Some people said that this was God's visitation because they had disobeyed the Bishop's instructions to build new churches. Others said that God had punished them because they had not helped the Allies sufficiently during the war and because some of them had betrayed missionaries to the Japanese. By April most of these specific rumours
[783] had been countered. There remained, nevertheless, an almost universal belief that God had punished the people for their sins, and these sins were enumerated in general terms, such as lack of co-operation in Mission and Government plans for development. This sense of guilt is a most important factor in resettlement attitudes.

731 Another factor affecting resettlement attitudes was the speed, scale and nature of the relief measures. The war-time miracle—the rapid mobilization of resources—was repeated by the European, not for purposes of destruction but for the help of the Papuan people themselves. Once again the people asked themselves how the European was able to do this; and they were grateful that their need had been met.

Relief was not only provided in the form of rations and building sites where the people erected humpies for temporary shelter. Medical services in the camps were directed not so much towards the healing of the wounded, for few of these had survived, so much as towards the maintenance and improvement of general health. The Higaturu Hospital was completely destroyed, but excellent field dispensaries were set up at Oro Bay, Popondetta and Ilimo. At Ilimo there was also a baby welfare clinic, staffed by two European nurses and Papuan assistants. In a few weeks the Ilimo dispensary and clinic had established itself as a popular institution, serving the needs of surrounding villages as well as of the camp. The large numbers treated bore ample testimony to the scale of medical need in the district and the regularity of out-patient attendance was notable.

[873] The Government maintained a technical training school at Higaturu, and the Anglican Mission had an advanced school at Sangara. Both of these were destroyed with almost complete loss of staff and pupils, many of whom were almost ready for graduation. Immediate relief measures could do little to replace this critical loss. But the Mission, with Government assistance, recommenced village-level schools in the camps. At Ilimo particularly the Government started adult education classes, partly to provide something useful for the people in their leisure hours, but mainly

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

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a village as small as Sivepe, statistical samples will sometimes show freakish features of which the sociological significance should not be overestimated.

Nine of the 12 labour migrants came from two of the families, namely the family of the village constable and that of the man who was councillor for Sivepe over the years following 1956. The other migrants came from three further Jegase families. The reason for all these movements was, of course, the absence of employment opportunities close to Sivepe. One absentee from Sivepe was a boy of the Seho clan who was at a secondary boarding school (Martyr's school, at Agenahambo).

Dissension was the reason for both the major migratory movements into Sivepe. The two Jegase families who came to Sivepe around 1956 were originally residents of a hamlet near Binduta called Korinasusu. All the other families of Korinasusu belonged to a different clan (Usohu). Conflicts between the groups arose; one Jegase man felt sure that deaths in his family were caused by Usohu sorcery and left. Another Jegase man was then accused of sorcery against Usohu and decided it would be wiser if he left too. At one time, such families might have set up a separate hamlet, but the government pressure towards consolidated villages led to their settlement at Sivepe, where there were a number of other Jegase families.

I was not able to reconstruct precisely what led to the Sorovi migration. Two of the men who settled in Sivepe were brothers of the Garombi feast leader and the other men were linked with these two by affinity or close friendship, as well as common clan membership. It is a general principle of Orokaiva family structure that the oldest brother in any family has absolute control over the family land and other family assets; he takes the place of the father. There is no sort of appeal against his decisions. He has the duty to "look after" his younger brothers and see that they prosper. If he fails in this task, the younger brothers have only one recourse; namely, to leave. In practice, the oldest brother is often compelled to divide up the patri-money when such a split-up occurs. Certainly this is what happened in the present case. The younger brothers renounced their elder's protection and started out on their own. Again, due to government pressure, they joined an existing village rather than starting a new one, as they might once have preferred.

Sivepe was chosen for several reasons. One of them undoubtedly was the link that existed through the three women from Ajoro who had been captured and taken to wives by men from Garombi and Sivepe. The descendants of these men regarded themselves as bound by common ancestry, because the three Ajoro women were regarded as being closely related (nobody could say how, but the fact that they came from the same village was said to be sufficient). This was a link between Sorovi and one lineage of Jegase; there were also specific links with a Seho lineage. Furthermore, as was often emphsised to me, there were links of hereditary friendship. Also, the families had land very close to Sivepe.

654 and local field trials are being carried out on the volcanic soils
242 of the Northern District.

Agricultural extension work was being carried on by Australian officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It is this staff which has been responsible for the gradual increase in coffee plantings and the spreading of basic knowledge about coffee cultivation. We should not, however, minimise the extent of knowledge and stimulus that spread not through the activities of officials but was passed on from experienced Orokaiva growers to beginners. Furthermore, many persons trained as agricultural assistants have returned to their villages and became a fund of knowledge to those around them. The assistants are trained in a course of between nine and twelve
● [87N] months' duration, given at Popondetta. Papuans may also receive a full agricultural diploma course at a school near Keravat, New Britain, or a two-year sub-diploma course at a school near Keravat, New Britain, or a two-year sub-diploma certificate course given at Popondetta. Graduates from these schools were not yet working in the Northern District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
245 unsettling effect on growers, though I could not observe very much of this as 1966-67 was a good year. I heard that in bad years in the near past people had been very disappointed. The problem of price fluctuations affects other tropical crops as well, and New Guinea has few sources of income which are significantly stabler than coffee. Therefore, no easy solution to this problem is possible. The Orokaiva Coffee Growers Society has been following a wise policy of withholding a substantial part of the proceeds in good years for capital improvement, thus providing a kind of cushion against fluctuations. Thus, in 1966-67, a substantial proportion of proceeds was withheld for improvements to the factory and trucks. Growers are paid an initial sum per pound substantially lower than the expected total proceeds, and the balance is in part distributed to shareholders at the end of the season, in part withheld. By this procedure, a substantial drop in export prices can be suffered without corresponding lowering of the initial cash payment. In 1966, the cash payment was $26 for a 150-pound sack.

A good deal of development work has been left for the Higaturu
657 Council to deal with. I have already mentioned that government officers
423 attempted to have the council deal with matters of land tenure improvement (though Port Moresby authorities overruled this) and that the coffee factory was planned as a council operation though again plans were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building of medical aid posts, the maintaining of the produce markets at Popondetta and Saiho and some minor social services. (For details, see Table 12.) Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

872 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Hohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard 2 will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

Kokoda. The invasion brought a much higher degree of cultural contact and upheaval by both the occupation of the Japanese and the counter-occupation by the Australian forces. Another dramatic upheaval took place in 1951 when Mt Lamington erupted, killing some 4,000 Orokaivas and Europeans. This caused a mass evacuation from the traditional home villages and the temporary settlement in collective camps outside the declared contaminated area. The temporary resettlement caused much friction (Keesing 1951).

Mission influence is strong in the Northern District. This is provided almost exclusively by the Anglican church and is of a fairly orthodox nature. Mission influence is mixed somewhat with traditional beliefs and there is an air of mysticism about the resultant religious system. Education is predominantly through a system of mission schools, partly financed by the Government Department of Education. The schools are staffed by both European and Orokaiva teachers and use an approved syllabus. The teachers are dedicated but often not substantially better educated than their pupils. Many of the Papuan teachers are educated only to Standard 4.

There is currently some covert aggression towards the European settlers, some of whom reciprocate in a more overt manner. The history of European contact has not always been happy. Frequent misunderstanding and misinterpretation by both sides has led to strained social relations in many cases. The initial settlement of Europeans in the area resulted in bloodshed and ill-feeling. Early miners and police both had cause to fear the Orokaiva. Later government attempts to enforce cash cropping met strong resistance in some areas. The Japanese invasion and its subsequent defeat led to many confusing and bewildering Orokaiva deaths. Since the last war there has been some improvement of the race relations - but they are still basically seen in some type of dominance relationship, e.g., master - labourer, teacher - pupil, etc. The Anglican church has ordained a few priests and in general has congenial relations with the Orokaiva, yet this does not necessarily suggest a closer empathy with or understanding of the people. The Orokaiva regard some resident Europeans as welcome and fairly warmly received and others as being unwelcome trespassers. More Europeans appear to be in the latter category than is generally realized.

Like any enclave in a foreign country the European settlers attribute stereotyped characteristics of personality and temperament to particular local groups. This process of one group classifying another into psychological types provides a working basis for interaction. The Orokaiva were quickly allotted a stereotype and this came to be reinforced as the ascribed characteristics were searched for and found. The Orokaiva were classed as being 'surly', 'resentful', 'sulking', 'good policemen but need

177 instituting numerous training programmes for the development of
657 skills hitherto unknown to Papuans, and by setting up organisations
647 in which Papuans wield a limited amount of political and administrative responsibility. It suffices, for my present purpose, to enumerate modern roles, performed by Papuans, with which the people of Sivepe came into contact during the year of my field study.

[799] In the church, Papuans now play not only the role of mission teacher, but also of priest (as Fr. Albert McLaren) and Bishop (as the Most Rev. George Ambo). Fr. Albert was the priest of the local parish, while the Bishop paid one visit to the district during the year, namely for the consecration of the church at Duve, a great formal occasion attended by at least 1,000 people, from the whole of the Sasembata district.

[625] Village constables exist no longer, but their place has been taken by the Local Government Council. Two of the councillors were regular visitors at Sivepe; the sanitary inspector appointed by the council, who lived at Garombi, came even more frequently, while many Sivepe people had occasion, during the year, to visit the Council chambers at Higaturu, where all officials are Papuan, with the exception of one European who acts as Advisory Officer to the Council and also as Magistrate for Native Court cases. Locally we had an officer named "Committee," which meant that he was a member of a committee appointed by the local councillor to enforce council regulations in the villages. Each village has one committee member whose tasks are not unlike those of the village constable, though the concept of the role is rather different, and will be discussed below.

[759] While the only medical role allotted to Papuans at the time of the eruption was that of orderly, nowadays there are Papuan physicians, two of them in the Northern District. One of them is medical officer for the district and the other, a woman, is attached to the hospital at Saiho. An increasing number of Papuans are being trained as Assistant Medical Officer, a five-year course. One of the graduates was attached to the mission hospital and aid post at Sasembata. Aid posts have been established by the government in many Orokaiva villages and manned by aid post orderlies who were trained in the Saiho Aid Post Training School. Inonda village is served by an orderly trained under this scheme (stationed at Hohota, three miles away), but the training scheme has been discontinued in favour of a more efficient scheme. The training of Papuan nurses started in 1958 while nursing aide training has started more recently. In addition to general training, these nurses are given an intensive course in maternal and child health.

[875] The same movement into senior statuses was characteristic of Papuan educational personnel. First, the training given to mission teachers before the eruption was in the main ecclesiastical, while in the Northern District in 1966, 35% had been through at least one year of formal teacher training; a smaller number had obtained a

177 higher certificate after a two-year course, while various teacher
657 training programmes were involving a number of them. Furthermore,
647 the inspector in charge of the school and, after January, 1967, also
[875] the District Inspector of Schools was a Papuan. Thus, in the Church as well as in the Health and Education Department, Papuans were in actual administrative control over Northern District operations, with white personnel nominally their subordinates. The term "nominally" must be applied to the relative rank of Papuan controllers and expatriate subordinates, because the latter are still receiving a very much higher salary. Nonetheless, the new situation definitely sets up a hierarchy, with Papuans at senior levels, and the village people are in official contact with them.

[631] I shall give two further examples of contacts with Papuan public servants. The first was with a clerk sent out by the Department of Lands, whose task it was to organise the establishment of boundaries between the wards. This man was an Orokaiva, from Jegarata, who explained the purpose of the boundaries in the Orokaiva language, at a meeting held in Garoubi and supposedly attended by all the villages in the ward. A spirited discussion took place, the people suggested village representatives, the clerk accepted the representatives proposed for Sivepe and Garoubi, but was non-
[276] committal over the other two, as he saw Isoge and Binduta were insufficiently represented. He chewed betelnut with the people;
[191] the whole procedure was matter-of-fact and businesslike, and no covering-up was attempted for the two ill-represented villages. The absence of an interpreter, the use of Orokaiva instead of the lingua franca (Moru), the free use of betelnut, the fact that we all sat on mats together--all this established an easy bridge between government and people.

242 During the same period, a good deal of agricultural extension
177 work was in progress in the nearby village of Sasembata. Here again, the day-to-day instruction was given by two Northern District Papuans, agricultural assistants, in a rather more junior position to the Lands Department clerk. These two young men were definitely supervised by an expatriate officer; they were staying in Sasembata village for awhile and came over to Sivepe one night for a small feast and a dance. Though they were both Aiga, they mixed easily with their Orokaiva agemates, on a basis of equality and familiarity. They were the guests of a third agricultural assistant, who belonged to Sasembata village but were working for the Department at Saiho. This young man gave me a description of the scope of agricultural development (a rubber cooperative) proceeding in Sasembata. He had a mature and responsible understanding of the project.

657 Finally, Papuan government drivers had highly significant
647 though informal contacts with villagers. These men, highly skilled
177 at negotiating the difficult roads of the Northern District, have the task of driving government personnel where they wish to go and often travel unaccompanied by officers to collect personnel or cargo.

657 Employed rather widely over the last decade or so, they have a
647 responsible job, for which the qualifications include a reasonably
177 high standard of education. In Orokaiva eyes, these men enjoy high status, as they have permanent, relatively highly paid positions and above all, because they control one of the most coveted European [494] resources, namely motor transport. They very often have the power to offer transport to Orokaiva travellers; their favours are eagerly sought; they carefully choose the men for whom they will stop on the road: kinsmen, residents of closely related villages, other men of high status.

Orokaiva accord high status to all Papuan employees of the government and the missions; one of the main reasons why men become, for instance, mission teachers is the high status they thus acquire in the villages where they are posted. This is so in spite of their very low pay; only recently has this low pay begun to deter recruits--due to the greater availability of higher-paid non-manual jobs for [875] Papuans. Mission teachers at Sasembata still regard themselves as aristocrats, who will speak somewhat deprecatingly of "the village people" and address them with some slight condescension. The best of them are most valuable as educators, not only in the religious sphere, but also through their knowledge of the outside world which they spread through their friendships with congenial villagers in the parish. They will also spread knowledge of elements of the culture of their own district, e.g., dances and songs, which are easily introduced into local repertoires. Most of the Sasembata mission teachers came from the Notu-speaking coastal district. One [797] problem with the mission stations has been, especially on the larger stations, that they develop into a sort of village of their own, a tight community with a deep conviction of its own superiority, not only because it is a mission village, but also because it is a Notu village and the Notu regard the Orokaiva as barbarians.

All the functionaries discussed so far are directly under the control of Australian institutions--the government and the church. The second category to be considered are Papuans playing roles for which they are elected or appointed by other Papuans. Within this category fall the members and officers of the Higaturu Local Government Council, the directors and manager of the coffee producers' cooperative, the local Member of the House of Assembly. None of these roles existed at the time of the eruption; they were created as part of the Australian policy, inaugurated in the 1950's, of preparing Papuans for at least local self-government and limited management of their own affairs. Though the views expressed by these officials hardly differed from those of the Government and Mission men, the Orokaiva received them much more warmly in their villages. Especially the councillors had to ingratiate themselves, their office being elective, and they handed cigarettes around. They were trusted far more than the government officials because the villagers felt they had some power over them; they were given local information withheld from the others.

177 the people. He was the only white man in the district (omitting the anthropologists) who actually did this. Finally, some people [464] of Sasembata district were familiar with taupa as workers and in personal service, as cookboys, housegirls, etc. outside the village.

The only taupa residents in the district were the head [875] teacher and his wife; they had daily personal contact with village [439] people especially because they bought vegetable produce for the mission, while people also approached them with a multitude of minor problems, e.g., pressure lamps that did not work, troubles at school, help needed with sports or the sewing programme of the women's club, etc. Most Sivepe men and nearly all the women were too shy to approach them. The head teacher used the Papuan priest as an intermediary when he had to approach Sivepe men when help was needed for school buildings, or when land was needed for the gardens of the mission teachers. The other taupa came to the district no more often than once or twice a year; the doctor attended patients only at Saiho; the magistrate sat at Higaturu; the nearest white planter was at Awala.

657 Characteristically, contact between the taupa and villagers 177 occurs either through the mediation of Papuan functionaries--and it is thus that basic ideas are mostly communicated to Orokaiva leaders and groups--or directly, when taupa finds it inexpedient to [242] delegate decisions on problems affecting individuals. This tendency to deal with individuals rather than leaders or corporate groups is self-evident from the roles of many taupa (educational, medical, judicial) but I noticed it also in, for instance, agricultural extension work. Here the emphasis was on the educating of individual growers. The administration is not in favour of cooperative cash-cropping ventures, so that dealings are of necessity mostly with individuals. When it is desired to indoctrinate groups, the most useful channel at the present time is the Higaturu Council, so that the taupa's message reaches the people through an Orokaiva intermediary. The patrol officer, when visiting a village, for instance for census purposes, tends to deal with his audience in three types of ways: (a) he deals directly with the "committee" for the formal arrangements of calling the people together and to obtain what facilities he needs for his work; (b) he makes a speech expressing the desires of the government, to the assembled people; (c) he addresses individually those individuals against whom he has complaints, and he does this in front of the assembled people. These individuals, on the occasion I witnessed, received a reprimand, but they might also be arrested and jailed. This kind of meeting is held yearly in every village.

Undoubtedly, the patrol officer consults both with the councillor and the committee member in charge of the village. It was clear from his treatment of the complaints on his list that he had not only consulted, but also trusted these two local leaders. The cases with which he dealt were all connected with the policy of

87] According to the Papua Report, "The core of the curriculum is training in the basic skills of communication and mathematics." (1966: 100) Of these two subject areas, mathematics is taught by a syllabus which will probably be widely applauded by educationalists. Australia has for some years made important research contributions to mathematical education. One of the most outstanding of Australian educators, Dr. Z. P. Dienes, was invited in 1964 to prepare a mathematics syllabus for Territory schools, introducing the "new mathematics approach." In 1966, this syllabus became officially accepted and the basis of the government examinations. Short courses for practising teachers were held, in the Northern District, during the summer holidays of 1966-67.
●[815] The Australian mission teacher in charge of Sasembata school also went and came back with a tale which will not surprise connoisseurs of the "new mathematics": he found that the Papuan teachers grasped the principles more quickly than those, like himself, who had been well educated in "traditional" mathematics.

87] In the language field, the Australians have taken the fateful
191] decision to make English the language of instruction in schools and the "universal language in the Territory." This is not the place to discuss this strange decision to which S. A. Wurm has recently devoted a clear and authoritative critique which seems to me unanswerable. (1966: 135-148) The key sentence of this critique is that the English language "constitutes a reference system to a culture whose very essence is completely alient to the natives, and it abounds in concepts they cannot even begin to understand on first being confronted by them." The textbooks used in the primary school attempt to overcome this difficulty by an emphasis on formal English, using the structural method, and devoting much attention to the memorising and to some extent the manipulation and transformation of pattern sentences. There is heavy reliance on memory work and very much less reliance on conversational English and creative expression. The teachers explained to me that this bias was inevitable in view of examination pressures. It was amazing, nonetheless, to hear Standard 6 students learning very simple pattern sentences by rote by the whole class saying 20 times or more in unison: "We are going to Paris" (wherever that is). I am not critical at all of the teachers at the Sasembata school, who achieved an impressively high percentage of passes (far above the average) in the government examinations. It is not difficult to understand, however, that these students could not communicate anything very useful in English to, for instance, myself and my wife. The system is, of necessity, a great waste of the children's intelligence. The small minority who later go to Port Moresby or enter European employment will find their knowledge of English useful but the great majority, who need to be equipped for a life in Sivepe and surrounding villages, do not benefit so much from the content of their lessons as from literacy (in their own vernacular), from their experience of the school situation, its relationships and values, and many incidental observations of white customs and attitudes which are most influential acculturative

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was a joke for days. I would therefore agree with Wurm that a language
121 such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In

875 spite of this vast differential, the mission continues to recruit
[465] certified teachers who are qualified for government jobs. These men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin
875 colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[377] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was
871 expected to be levied by school principals. The various missions of the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Sasembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

CHAPTER VII: Mission Welfare Efforts

Section 1: Mission and Community

797 The mission at Sasembata formed a kind of community of its own.
361 From the ground plan of the mission station (Map XI) it will be seen that it differs somewhat from a village layout. In order to grasp its essentially Orokaiva nature, I shall have to compare the station with others I saw: at Hohorita, at Waseta, Isivita, etc. The Church and cross always occupy a central position. The houses at Hohorita and most other stations are in two facing rows, just as in an Orokaiva village, but at Sasembata the central field is so wide that this did not develop. The position of the church in the centre rather reminded me of the position in which Orokaiva build their feast houses; these are always in the central space facing away from Mount Lamington with a sizeable open area in front. The houses tend to be a little bigger than those in the villages. Since the craze for timber houses started, the mission lost no time in replacing its own teachers' houses with timber ones. Materials for these were always supplied by villagers.

895 It was traditional for villagers also to supply teachers with
425 land for growing taro. At Sasembata, the mission found it hard to
797 get this land; it would be lent from year to year, but never, as the head teacher would have liked, on a permanent basis. The Papuan priest was rather put out over this and talked about leaving, for that reason. This difficulty over land was not, as the head teacher supposed, a sign of meanness, but rather of the continuing power struggle between people and mission.

797 This power struggle is best understood as a variant of the kind of rivalry that exists between any two villages, except that the mission station was a village of a special kind. Between the time it was first founded (in 1945) and the eruption, the staff was entirely
[731] Papuan. The eruption led to no defection but to a strengthening of
[784] the bonds between church and people, partly because of the Orokaiva interpretation of the disaster (which emphasized the powers of the Christian God) and partly because of the interpretation of mission operations in the affected areas. After 1951, the station and the school were much enlarged, and a European head teacher and a European nurse were assigned to Sasembata. These white missionaries would negotiate directly with the village men and obtain what help they needed--labour, materials, land--in exchange for their educational, medical and religious services. In 1955, a Papuan priest was attached to Sasembata. He gradually gathered round him a number of teachers from his own language area (the coastal Motu language) and

A [See Cat. 116, p. End Map 10--Analyst.]

Section 4: Social Services

799 The mission contribution to health and education has been set out in the previous chapter. It is of course the mission rather than the government which has pioneered the social services in the Territory. The first contact the Orokaiva had with Western medicine and education was through the mission sisters and the teachers trained, however inadequately, by the mission. The scholarly inadequacies of the mission teachers, though regretted, had not marred the primary aim of the church which was to inculcate Christian values and introduce some acquaintance with the arts of civilisation. If before the second world war, education was not viewed by the mission as a weapon in the struggle for economic development, it must be remembered that economic development of the Papuans was not deliberately pursued as an objective by the government or any other influential group in the Territory.

799 At the present time, mission education poses a dilemma. The 871 government school inspectors express their concern over the generally low academic standard of the smaller mission schools. It has now been established as a rough rule that schools, in order to receive 875 government approval (and therefore financial assistance and examination facilities), should have a ratio of trained teachers of at least one in three. The term trained is defined, for the benefit of the mission schools, as meaning the possession of an A certificate. Over the whole of the Northern District, one in three is approximately the average.

799 There has been no case where the government has actually caused 871 a school to close down. Such action would certainly greatly anger the Anglican authorities, who argue with some force that the government has no practical means to replace the educational service of the missions. It lacks trained personnel, just as much as the mission does. Moreover, it is far more expensive to conduct a government school than a mission school and the government cannot afford this extra expense. Finally the mission argues that for the Papuan, as an essentially religious person, education ought not to be divorced from religion.

875 Meanwhile, the government is rapidly upgrading its own standards 651 of training. It restricts to the utmost the intake of teachers with A certificates and encourages, by means of salary and other incentives, the obtaining of B and C certificates. It is gradually widening the scale of its operations. At the same time, the government is performing a most valuable service by giving refresher courses to practising mission teachers, thus improving their knowledge and giving them a more professional attitude to their teaching tasks. I watched Sasembata teachers who went to these courses which certainly provided much stimulus. In Higorita, the mission conducted special classes for adults who lacked a standard 6 education. These were mostly attended by mission teachers who thus became qualified to do further study toward a teacher's certificate. The mission conducted some teachers

training schools which prepared students for examinations for these certificates.

Though many men with teacher's certificates and advanced medical training take up positions with the government, where salaries are far higher, there is still a considerable inflow of qualified Papuans into the mission ranks. One reason for this may perhaps be found in the sketch I gave earlier in this chapter of a typical mission station settlement. The educated man who takes up a job with the mission receives his reward, not only in the satisfaction of religious service and the approbation of the mission towards which he is usually obliged for his education, but also an assured social status in a community in which he can feel thoroughly at home and can set up the type of social relationships to which he is accustomed. A government position on the other hand tends to isolate and detribalise teachers and hospital workers and thus be less satisfying socially.

Finally, it should be stressed that the mission is responsible for the education of Papua's educational élite. Martyrs School, once built at Sangara where it was destroyed by the eruption, and now established just outside Agenahambo, prides itself on a higher academic standard than any of the other secondary schools of the Northern District. It is able to choose the most proficient of the products of the primary school system, not only in the Northern District, but in the whole of Papua. One man in Sivepe and one in Inonda had been to this school but neither had continued to the secondary Forms. But the church-educated élite will dominate the Northern District for some years to come, until the graudates from the new University of Papua New Guinea will take over this status.

individual names to become part of village history. The anthropologists who had been in the two villages, under the auspices of A.N.U., were all very well remembered by name. When we included in a questionnaire a request for the names of Europeans our informants knew well, we were given a list including all the anthropologists, by their first names, and nobody else. This was almost a standard reaction. I am not at all sure that this close acquaintance made the anthropologists into key figures in development or that they were more influential in socio-economic development than the mission and government servants who, though anonymous, may have achieved more in this direction. A.N.U. personnel have made presents of coffee hullers, both in Sivepa and Inonda; one anthropologist taught his key informant in Inonda to drive a car, as a result of which this man found a permanent job with the administration. These certainly were tangible moves in the direction of economic progress.

I found that among the Orokaiva, unlike the New Zealand Maori, I was never asked my opinion when some community decision was to be made nor was any greater interest displayed in the views of my predecessors. I was usually told when something had been decided (and decisions almost always seemed to be reached in my absence) and naturally I always expressed pleasure at receiving the information. The pattern was different only when I myself was directly involved. On the other hand my participation in community activities was sought and much appreciated. Our behaviour was closely observed and some minor innovations in housekeeping (the making of washing lines, airing of blankets, etc.) may be due to my wife. Everybody seemed concerned that our presence should not disturb the precarious balance of power--and that we should be given no power. This suited my own purpose.

If the anthropologists may nonetheless perhaps be classed as key personalities, it is because Orokaiva attach special importance on the kind of relationships that are thus established with whites. I have already mentioned some hints we received that we might be returned ancestors; even if imagination does not go so far, the daily relationship established with the anthropologists comes close to what Orokaiva would regard as tolerable and human. It is in the texture of life that grows up between the population and the anthropologist rather than specific innovations that the importance of his visit lies; perhaps without realising it, he nurtures an ideology.

One of the significant mediators during my time in Sivepa was the head teacher of Sasembata school. His case will provide an example of the dangers of generalising about expatriates who are in fact an extremely complex group very imperfectly known. This man, aged about 28, had led a somewhat bohemian life in Australia, as a photographer, broadcaster and advertising agent. His decision to join the New Guinea mission was in part a conversion, in part a search for identity, in part a search for an assured place in the world. He married a mission teacher met in New Guinea. He found, in fact, that none of the fixed expatriate categories quite fitted him: he had absorbed, while in

875 659 Australia, enough of contemporary thought in literature, art and allied subjects and enough general sophistication to fit only with difficulty in the society of missionaries, planters and officials. At the same time he was drawn to these groups because of his feeling that by coming to New Guinea he had joined the "have's" and left the "have-nots" behind. Though his bohemian background made him critical towards the colonial attitude to Papuans, he faced a difficult problem in working out his own. Both his own ambition and his wife's background (closer to the mission norm) predisposed him to avoid identification with the Papuans. On the other hand, when I met him, he still felt a little uneasy at playing the pukka sahib role which was certainly a betrayal of earlier principles. He was beginning to run into some difficulties with Papuans on the mission station and in the villages. During the year of our presence in Sivepe, he found what seemed an excellent solution by being elected a member of the Higaturu Local Government Council.

649 666 [123] [829] Though membership is open to persons of any ethnic group, it seemed at first as though Orokaiva would not vote for an Australian candidate. After all, they are well aware of the dangers of having their local affairs controlled by foreigners. But as the election approached, attitudes changed. Quite early, they had asked me to stand, but I excused myself as I would not be staying long enough. A little later, the mission teacher heard that if he offered himself, he would get some support. He went to the villages of his ward on an electioneering tour and defeated the sitting member with a comfortable majority. The motive of the electors, as I was told, was that this energetic young white man would be a good champion for Sasembata causes in a council which, in pragmatic terms, was still largely dominated by an Australian advisor. Furthermore, Orokaiva were well aware that their own power over the mission teacher had increased considerably since he depended on them for elective office. He and his wife could no longer treat any callers in an offhand fashion, for were they not also voters?

Section 2: Papuans from Other Districts

177 In our discussion of expatriates, we have shown that some kind of identification with Papuan values occurred in many of the most influential; this identification could either be positive, when the expatriate identified himself with the interests of the Orokaiva, or negative, when the expatriate used procedures not acceptable in his country of origin but effective in furthering his own interests in opposition to Orokaiva. For the Papuans, employed as pastors or in similar roles, and therefore resident among a strange tribe, the position was more complicated. Such a Papuan was not principally a mediator between his own indigenous culture and that of his new

[731] [231] problem—and one which the Orokaiva will not be equipped to solve when stocks of these animals are eventually restored. It seems fair to prophesy that as the people become habituated to living in the shadow of the volcano, many of them will quietly "hive off" from the present concentrations and go their familiar economic way. Alternatively, official opposition to this trend could produce growing tensions, including anti-Government hostility.

[551] [191] 5. Other factors can be noted congruent with the above points. Some individuals are said to fear that in larger communities they will face more extensive demands for village maintenance and other Government and Mission needs than under the old patterns of settlement. Belshaw points to a [191] complication of the labor situation in the resettlement areas due to a request by the Mission that its adherents devote some time to building new Mission stations in the area. [198] As indices of the increasing normality of life, there is some revival of dancing and music, as well as keen sports interest.

[731] [361] On the basis of such factors, the writer ventured to present to the Administrator and a group of his top officials a view opposed to a compulsive concentration policy. He suggested, instead, that three or four main "centers of attraction" be developed outside the danger zone and on the main road, corresponding to the principal ethnic concentrations (Sangara, Isivita, Wasida). Here would be located subdistrict offices, Government boarding schools, medical aid posts, community center houses, experimental garden plots, and other facilities. Housing space could be made available to those desiring to settle around such a center voluntarily and try out more concentrated and sedentary living. The Mission could also use such centers for their stations if it wished. The writer also recommended cutting a series of crossroads more or less at right angles to the main road, and locating each "center of attraction" at a main crossroad point. These secondary roads would serve to draw settlement away from the overcrowded chain of villages that have developed along the one main road. This plan would enable those people who do not wish to be concentrated to scatter out in a wider pattern of dispersal for garden development; it would offer quick routes of escape on foot or in vehicles in case of the threat of further eruptions, ready access for government welfare services, and for transporting commercial crops to market. The writer has subsequently been informed that these proposals in general correspond with the policy which was officially adopted—crossroads have been cut and government centers and facilities have been built up at three key points.

[731] [199] The second problem referred to earlier, namely the delicate one of Government versus Mission responsibilities, will be discussed only briefly. The Mission teachers claim that the great majority of the mountain Orokaiva are adherents: those remaining outside the church do so by conscious choice. In the wake of the eruption the Anglican authorities sent in a very active, young Bishop who was familiar with the people, to take charge in place of the resident white staff killed at Sangara. Mission medical workers took over some of the important health responsibilities, including a Mission hospital at Oro Bay. "Native" Papuan Mission [895] [892] teachers started elementary vernacular schooling in the camps.

This was in accordance with the official policy of the Territory that mission bodies shall normally handle at least the first four years of "village" level schooling. In such a major center as Ilimo, however, the question arose as to whether Government should step in to provide more adequate schooling facilities as part of its "community development" program. This was complicated by the fact that children of non-adherents had to come under the Mission teachers if they were to get schooling. The writer was told that in the morning these teachers went through the camp with switches to get children to school. Another potential conflict was foreshadowed at the time of the writer's visit by the Mission's decision to send in agricultural workers in the face of the active program of rehabilitation by Government technical officers.

The writer gave it as his opinion that the Government should not abrogate its responsibilities in essential matters of rehabilitation, that it should insist on coordination rather than rivalry. It is understood that this view has been made policy, even in the face of the great sensitivity of Government in such delicate relationships that could reflect back in the form of criticism by religious groups in the metropolitan country. Government schools have been opened and the people are free to choose between them and the Mission institutions. Official medical services have become well organized. It will undoubtedly take time to unravel the question of the Mission role in agriculture, particularly as it is bound up with the religiously-oriented cooperative movement. There could be further new cults centered upon gardening and, as with various other post-war movements in the New Guinea area, these could be either pro- or anti-Government or Mission or both.[10]

The possibility of transforming Orokaiva agriculture from the shifting to a sedentary basis deserves a special final word. A recent report of the Director of Agriculture stresses this problem as of prime importance to the development of

10. Though extensive materials exist in unpublished official reports on post-war New Guinea cults (e.g., the Paliau movement in Manus, the Yali cult in Madang, the Tomu Kabu cult in the Purari delta) very little has been published. Available references are Belshaw, C.S., "The Significance of Modern Cults in Melanesian Development," *The Australian Outlook*, 4, 2, pp. 116-125 (1950); de Bruyn, J.V., "The Manseren Cult of Biak," *South Pacific* (Journal of the Australian School of Pacific Administration, Sydney), 5, 1, pp. 1-10 (1950); Guiart, J., "Cargo Cults and Political Evolution in Melanesia," *South Pacific*, 5, 7, pp. 123-129 (1951); United Nations Mission, *Report of Visiting Mission, 1950* section on Paliau movement, reproduced in *South Pacific*, 4, pp. 207-208 (1950). A brief analysis of modern cults is given in Keesing, "Research Opportunities in New Guinea," *Southwestern Journal of Anthropology*, 8, 2 (Summer, 1952).

S: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

871 until the end of Standard 4, but that schooling beyond that level
797 is taken by a far smaller number. A great many mission schools teach only up to Standard 4, so that those who wish to proceed further have to attend a boarding establishment.

872 Sivepe was fortunate in that the nearby Sasembata mission
877 school conducted classes to the end of Standard 6. This was a comparatively recent development; when the school was reopened after the eruption, it still went no further than Standard 4. Most pupils will stay at the local school for the full programme, but some who fail the examinations at the end of Standard 5 drop out. Sasembata School has boarding facilities for students from other mission schools who have to leave home to get education after Standard 4. These are accommodated in dormitories built of bush materials on the mission station.

872 Inonda was less favourably placed. A school opened at Sivepe in 1952 by a Seva mission teacher displaced by the eruption, was closed down in 1959. Today, the nearest school, at Hohota, three miles away, teaches only up to Standard 2. Anyone proceeding beyond that level had to board at Popondetta for further schooling. In 1967, there was one Inonda boy receiving education in Standard 4 at the Popondetta primary school. There were no children at Inonda who had left school at Standard 2 and were hanging about at home; it will be interesting to know how many of the seven children at present in Standard [illegible] will go to Popondetta next year.

873 Post-primary schooling is available at four institutions in the Northern District (two government, two mission) with a total attendance of 719, but neither Sivepe nor Inonda had students there in 1966-67. At levels above Standard 4, the education system tends to become increasingly selective, with tough examinations to reduce the number of those who take up boarding places at secondary school facilities. External examinations are set for students completing Form II (i.e., Standard 9), Form III and Form IV. For the most successful, university and other advanced training is available; those who have completed
[874] Standard 7 or higher can enter teacher training schools. Two of the post-primary schools in the Northern District are technical schools which train apprentices. Training for nurses is not yet available in the district, except with the mission, which issues no diplomas.

871 Education in most of the Northern District is not yet compulsory, even though legislation exists to enable the government to declare school attendance compulsory in specified areas. Popondetta has been declared an area of compulsory education. It is true, as the government claims, that even where schooling is voluntary, virtually all children enroll and attend from the age of five. The length of attendance depends on the type of education available in various areas; thus, it would generally be longer in Sivepe than in Inonda.

The curriculum, both in the government and mission schools, is very highly standardised and mission education is of necessity dominated by the need to prepare students for government examinations.

875 spite of this vast differential, the mission continues to recruit certificated teachers who are qualified for government jobs. These
[465] men live on the mission stations with their families. The mysterious aspect of the salary question was the payment by the government of a
654 grant-in-aid to the mission in respect of all mission teachers who
797 held A course certificates or better. The amount payable ranged from $240 per annum to $1000 per annum according to qualifications and skin
895 colour, but in all cases the government paid the mission in subsidy far more than the mission paid the teachers. The only explanation of the disparity I could get was that the Bishop had suggested and the teachers had agreed that all mission teachers work equally hard and well and should be paid the same. Thus, the money received from the government was supposedly shared among all teachers--certificated or not--and the government is apparently not concerned how the mission spends the grants-in-aid.

871 Mission schools are inspected by departmental officers and receive classroom materials on the same basis as Administration schools.
[877] Grants-in-aid are paid to missions for the maintenance of students at a boarding school. There is provision for Local Government Councils to provide school facilities over and above the government minimum standard, and receive government subsidy for these, but this provision was little used in the Northern District. Though a few of the school texts have been prepared by the mission, most materials have been supplied by the Department of Education. These materials tend to be class sets of graded school text books in the basic subjects, English, Mathematics and Social Studies. Little reading material is available
[207] over and above basic texts. Such curriculum enrichment as there is comes mostly from the educational broadcasts which are frequent and produced with great care. In view of the limited training of most teachers, the value of these radio lessons is considerable. In 1965, 38 broadcasts per week were available to school children.

652 In 1967, the government brought in an education tax which was expected to be levied by school principals. The various missions of
871 the Territory were disturbed about this demand, as it would turn them into collection agents for the government. Furthermore, the missions knew the fallacy of the argument on which the government relied for the defence of this tax. It was not true, as the government alleged, that Papuans passively accept education as a handout and feel no obligation to contribute to their children's school education. Orokaiva parents, and notably those of Sivepe, are constantly making substantial contributions. The head teacher at Ssembata told me that in 1966-67 he had received $300 in financial contributions as well as a great deal of labour assistance for the building of new classrooms, new teacher's residences, the hospital, etc. and the building materials necessary for these projects including sago thatch and blackpalm flooring--both of them scarce materials requiring a good deal of labour as well. These contributions if calculated in financial terms would come to a good deal more than the tax of $1 per child the head teacher was

this became the core of a new community. At the time of my arrival the European mission sister had been replaced by a Papuan assistant medical officer who, though from another tribal area, strengthened the Papuan missionary group. There were ten teachers, a priest, a deacon and the medical officer, together with their mostly large families--a population that must have been close to 100. Also on the mission station were the boarding school students, adolescents from various districts (their number was around 60), some of them related to the mission teachers. It was customary for the teachers to adopt the children of relatives to be educated on the station under their care. This further added to the Papuan mission station strength.

In this atmosphere the European staff, though indisputably in command, were severely handicapped, as usual, by their lack of information about what was really happening on the station. Not infrequently, I was better informed about this than the head teacher, because the station gossip would flow very easily into Sivepe whereas the mission staff were careful not to tell the head, for fear of inviting instructions they might not wish to obey. The big building projects, such as the hospital, were organised without his knowledge; the workers suddenly appeared and started work; after a few weeks pulled down the building, not being satisfied with it, and started again. They only approached the head when they wanted nails.

To the Orokaiva of the district, the real power struggle was not with the head but with the mission staff. This does not reflect on the head personally; indeed, shortly before my departure, he became a candidate in the Higaturu Council elections and was elected councillor for the ward which includes the mission station, on the votes of surrounding villagers. This very fact, however, indicates that he was not involved in the power rivalries surrounding the station; it was expected that he would be effective in negotiating with the council for water supplies, roading improvements and such like and that, being virtually a stranger, he would not upset existing power relations.

The power rivalries arose because the mission station Papuans regarded themselves as definitely superior to the villagers. The Motu-speakers especially thought of themselves as carriers of a higher culture than that of the Orokaiva--better dances, better loincloths, better headdresses, better pots, and above all, a long association with the mission during which their district had become altogether more civilised than the inland people. It was because the Orokaiva were ignorant that they had to depend on Motu mission teachers.

This boasting troubled the Orokaiva especially because it had some factual basis. Much present-day Orokaiva culture is borrowed from the coast and coastal art and technology is superior in sophistication. Cona was the birthplace of the Anglican mission of the Northern District; hence, the coast has produced a disproportionate number of priests and mission teachers, the most prominent of whom is the Bishop who is himself a Cona man. In these circumstances owners of land surrounding the mission station saw some risks in making

One might well regard such immoderate claims as the response to a breakdown in the social exchange relationship. According to model 17, increased rights over land should mediate an *increased* quasi-filial allegiance, implying an increased willingness to aid and share with maternal relatives. Such, however, was rarely in evidence. On the contrary, most coffee-growers, engrossed in the new task of growing coffee, tended to ease up on their family obligations, gave fewer feasts and were apt to neglect their maternal relatives. This was especially so because Church influence reduced the scope of initiation ceremonial which is one of the traditional key functions of the maternal family. Certainly the maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

In order to demonstrate the importance of quasi-filial allegiance as a factor in land transactions, I shall cite one case, again from Inonda, where coffee gardens are being run profitably on land over which the grower holds only 'permissive' rights. The three coffee gardens established in 1955, and still harvested in 1967, are on land owned by the Endehi'undi clan but relinquished after a defeat in war. It has been used by Andiriha of Inonda since 1915. When Inonda people started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

The Andiriha leader now invited a widower belonging to the Endehi'undi group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

Instances of this kind help us to understand what was involved in the Orokaiva system of residual or dual rights over land and dual allegiance owed by individuals to different families from which land useholds are derived. We have long tended to believe that the basic co-operating groups in primitive societies are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the

incontinently appropriated by her husband. The sharing of a fruit, especially a twin fruit, is a frequent practice when two people wish to establish or restore specially close bonds with one another. It constitutes a mutual pledge of friendship by agreeing to have a feast and take all the taro; they are re-establishing it by the betelnut-sharing. Thus we meet again the theme of the removal of conflict and the promoting of communion that dominates the feasting institution.

After the meeting, an invitation is sent to the chosen village. This takes the form of a small preliminary gift of betelnut and food, symbolic of the bounty to come later. The sending of this gift is called *sope ikari*. The men begin to build the feast house, a special structure which looks quite different from modern houses, but seems to correspond in almost every respect to the design of ordinary pre-contact Orokaiva houses. A style of carving used on the posts of modern feast houses seems to derive from the taro cult prevalent in the Northern District shortly after 1914 (see Chinnery and Haddon 1917, Williams 1928). The house is normally ready about a month before the feast. The ritual task of drawing down the spirits to dwell in the house and possess the offerers of sacrifice now begins. There is an all-night dance in which only initiated men participate, and at which bullroarers and flutes are used to draw the spirits. (For these instruments see Chinnery and Beaver 1915, Williams 1930: 195.) Though informants claimed that this ritual was now abandoned, I know it was enacted at Urarituru, two miles from Sivepe, in 1967. In some villages this dance is repeated (as Williams also notes, 1930: 230) from time to time before the feast, while it is also general practice to sit in front of the feast house at night and sing feast chants, which I heard one evening at Inonda. Each chant dealt either in forthright direct language or more symbolically with one of the objects necessary for a feast: meat, taro, various other vegetables and fruits, clothes, ornaments, betelnut, etc., telling them all to be plentiful. Another chant was addressed to the smoke arising from the fire inside the feast-house, telling it to draw to the village an abundance of guests. As these chants proceed at night, people busy themselves by bringing in food for the feast, preparing ceremonial clothing, and ornaments to be worn by the hosts.

The main effect of these preparations is to induce in the offerers of sacrifice a psychological identification with the *dema* of primeval time. Very little agricultural work is done in this part of the year except harvesting so that virtually all productive energy goes into ceremonial preparations. Those who are to play the role of visitors must likewise prepare, as they are usually called upon to dance, and so need to make or renovate the same paraphernalia and rehearse their dances. The change of identity that occurs when people wear ceremonial dress is strongly emphasised. Everybody must act as though this dress actually makes the wearer unrecognisable. Informants variously explain that the wearer is a wallaby, a flower, one of a number of species of birds perhaps, or an *embahi* – a spirit. Williams has described how initiands are expected to show fear of the *embahi* at initiation and be mystified by the disguise. Initiation, indeed, is the ritual whereby young people learn the dual identity of men: the everyday people one sees about the village, and the ancestral spirits which may at any time transform these familiar people into beings of primal time. The curious nasal sound of the feasting songs emphasises this new identity.

824 partners, while objects of mediation are not imaginary and magical, but have a real
772 existence. I shall deal with these two aspects in turn.

3. *Coconut as an Object of Mediation*

824 Coconut has several culinary uses: it is eaten raw; soup is made of the flesh; the
[252] squeezed flesh produces coconut cream in which taro and delicacies such as river
[262] crabs may be cooked. Young coconuts are cut open at the top and used for a
[262] refreshing drink. Coconut is reserved for two kinds of everyday food gift:
[272] cooked dishes offered to guests and young coconut offered to visitors on arrival.
[431] Waddell's figures for coconut transactions are surprisingly low (less than 1 lb. per week disposed of in an average household). In Inonda, where the climate favours the coconut, there has been sporadic commercial exploitation of the nut.

[574] Coconuts are also a feasting food. At ordinary harvest feasts and bridewealth payments they are seen on display platforms along with taro and other
[262] vegetables. Williams (1930: 44) reports that they used to be placed under a taboo when a large feast was pending. I have already mentioned that at mortuary
[764] feasts they are the principal object of mediation between the plant emblem group of the deceased and the village which has provided services to the deceased at the time of death (See Williams 1930: 223–6). I saw a variant of this ceremony at Hohorita in 1967. The plant emblem groups of the deceased couple provided massive gifts displayed on a platform: feast taro, tins of fish, cartons of flour, corned beef in tins, sugar-cane, pots of cooked vegetable food, small bags of salt, smoked meat, a dead pig suspended from a stick, rice, bread, an abundance of betelnut and carved taro suspended from horizontal poles placed above the platform, while at least 1000 lbs. of coconuts, strung to poles supporting each other diagonally, were seen everywhere among the other gifts.

[262] Coconut is correctly believed to be a valuable adjunct to children's diet, as it
[146] provides first-class protein. The belief is explained by Orokaiva in a myth quoted by Williams (1928: 122) according to which the first child ever to eat a coconut
[231] grew miraculously overnight. Children do eat a good deal of it and it is also fed regularly to dogs and chickens. Orokaiva also regard the effects of coconuts on
[235] dogs as miraculous. As neither dogs nor children have any other substantial supply of first-class protein, the coconut relieves a very real diet deficiency. Whatever religious significance is given to the coconut is related to this.

824 Coconut oil is used as a cosmetic for hair and body, not only to enhance
778 beauty but also for its magical efficacy. In a ritual performed over a man-slayer, a coconut was broken over his head as a purificatory and 'defensive' device in
[302] the sense that the fluid would drive away dangerous spirits (1930: 175). With
[789] the same end in view, the bodies of female initiands and certain ornaments worn at dances are rubbed with coconut oil (1930: 207). It would appear, in view of
[881] this evidence, that the coconut is in general identified with *ivo* communicated by the dead to the living. The coconuts of a dead leader are thought to contain his *ivo* in a form which is communicable, not to his kinsmen to whom these
[761] coconuts are taboo, but particularly to his affines. The quoted ritual uses of the coconut are all associated with some contact with the world of death, i.e. critical situations in which the living have been in contact with death and need the help
[764] of the dead to obtain *ivo*. While this *ivo* is communicated, through the mediation

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

tribes (twelve items), including in his list many *hambo* still in common use. Williams (1930) criticised this account on two grounds: some kinds of *otohu* were regularly conferred upon boys and girls at initiation before they had killed anyone, and most of the items listed by Beaver were in fact conferred on such occasions. While Williams did not rule out the use of homicidal emblems, he thought they should be called *esa* rather than *otohu* and provided a short list of such *esa*, i.e. ornaments given exclusively to man-slayers or to men who had slain a wild pig and presented it to the donor of the *esa*.

Williams reserves the term *otohu* for ritual objects used as symbols for ethical notions central to the Orokaiva world view. He thinks that the *otohu* is best understood in the context of boys' and girls' initiation, as conferment most often occurs at the conclusion of initiation ceremonies. In this chapter I shall first summarise Williams' description of the transfer of *otohu* in initiation, and proceed to add some new information which may lead to a clearer understanding of the nature of the *otohu*.

3. *Williams' Account of the Conferment of Otohu*

Orokaiva initiation ceremonies include four main rituals which are, as Williams reports, not always performed in the same order, but the one ceremony he witnessed occurred in the same order as those described to me by informants:

(1) First, initiands are kept in seclusion for some months. Living in a separate house in semi-darkness, they are well-fed, kept warm with a fire, but must not wash. Williams rightly discounts Chinnery and Beaver's account (1915) that initiands are given detailed instruction of a moral nature at this stage. This was denied by my own informants who had themselves been initiated.

(2) A nocturnal dance occurs during which spirits (*embahi*) appear from the bush, assail and frighten the initiands, but are driven off by the initiands' relatives. Chinnery and Beaver (1915) plausibly suggest that this ferocious scene serves the function of instilling 'absolute and lasting terror in the candidates', of obligating them to their relatives who saved them, and of inducing in them 'a receptive and chastened frame of mind' for the instruction that is to follow. The scene is graphically described by Williams.

(3) The next morning initiands are, for the first time in their lives, dressed up in full dancing regalia, after which they make an impressive début at the village dancing ground. The ritual is known as *kogumbari*. It is performed by an expert whose main concern seems to be with the aesthetics of dressing up, and who lends the initiands feathers and ornaments from his own large store. He stands in no particular kin relationship to the initiand and may even be from a different village. (Fathers are excluded.)

(4) If there is a presentation of *otohu* to initiates[2] this is not part of the initiation ritual as such, which occurs immediately after *kogumbari*. The dressed up initiates are 'shown to the people' and take part in a dance called *kuru*, which is described by Williams (1930: 188). The presentation follows this dance.

It begins with a series of speeches by old warriors (*aguma*) who recite their feats of war, their killing of victims. Initiates sit on a row of sticks laid on the ground ('lest through contact with the ground they run the risk of physical deformity'). The donor of the *otohu* (most often the father or mother's brother)

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

881 301 then takes up a position behind the initiate while the *aguma*, standing in front of him, teases him by pretending to offer him the *otohu*. When the initiate stretches out to receive it, the *aguma* snatches it back again. It is tossed over the initiate's head to the man behind him, or to spectators or from one spectator to another. Williams reports:

[577] It is properly at this stage, while the initiate is waiting to receive his ornament, that the *aguma* lays upon him certain injunctions of an ethical character. These are always associated with the *otohu* and, as we shall see, they throw some light on the obscure meaning of the word. As he proffers and withdraws the ornament, the officiating *aguma* exhorts the candidate to refrain from thieving, from adultery, from quarrelling and from such lawless acts as killing a neighbour's dog. (1930: 191)

After describing the ceremony of presentation, Williams turns to the explanation of the word *otohu*. *Otohu*, he says, tend to be regarded as rather beautiful objects but embody a social distinction as well. The wearing of an *otohu* 'implies that the owner has paid a pig (if he acquired it in adulthood), or that it has been paid on his behalf, and thus the ornament has been formally and regularly acquired' (*ibid*. 203). Sometimes the *otohu* is acquired in return for the body of a man, rather than a pig, but Williams finds (unlike Beaver 1920)

> no very essential difference between the 'pig *otohu*' and the 'man *otohu*'. They are of the same nature, but one is bought with the body of a pig and the other with that of a human victim. . . .
> It would appear that the homicidal *otohu* or *esa* was less an *insigne* conferred, *honoris causa*, upon the man-killer as such, than an ordinary *otohu* purchased with the body of his victim. (*ibid.*)

881 577 301 Williams saw that his theory brought him into conflict not only with Beaver's explanation, but also with apparently obvious implications of the ritual of conferment. Why did the *aguma* always recite his own past killings? Does not this indicate an association between *otohu* and man-slaying?

Instead of elucidating this, Williams turns to interesting data on the usages of the word *otohu*. As an adjective, it means: well-behaved, decent, diligent, generous, respectable, set apart, holy. 'An *otohu* man was he who went about his work quietly, who returned from his garden with wood on his shoulder and set it down, then chewed his betel without "rowing".' There is a direct connection, Williams remarks, between the virtues subsumed under the word *otohu* and the injunctions laid upon the initiate by the *aguma*. He concludes that the possession of an *otohu* creates a social obligation, namely to behave in the manner called *otohu*. As for the derivation of the word, Williams has no suggestions to offer except one interesting point: the Baruga, southern neighbours of the Orokaiva, have a word *kortopo* which is used in the sense of *otohu* but *also* in the sense of *hae*.[3] He wonders whether the *otohu*, 'originally', might have been a clan emblem (*ibid*. 206). In addition he reports, but gives no significance to, the fact that the larger of the two flutes used at initiation ceremonies is called *otohu*. The sacred flutes are always played in pairs by two men facing one another. One of the pair (the *otohu*) is larger than the other, which is called *e* (= mother).

4. *Additional Data on* Otohu

Discouragement of initiation ritual by the Anglican mission and the consequent weakening of the institution greatly hampered me in obtaining the additional data needed to clarify Williams' account. Unable to attend any ceremonies, I had to depend almost entirely on interviews. Most adults still own *otohu*. The men usually receive them at initiation, the women either at initiation or, quite often, at the time of marriage. In about half the cases the father was the donor; in most other cases it was the mother's brother. One man who had been elected a member of the Higaturu Local Government Council, was honoured with an *otohu* by his wife's father.

With regard to initiation ritual, the seclusion of boys is no longer practised and the period of seclusion for girls tends to be much shorter than in earlier days. It is, however, rarely shorter than three weeks and sometimes still lasts for some months. The influence of the mission is given as the reason for the changes. When I asked why the modern custom for girls differs from that for boys, I was told that if girls were not secluded and subjected to the full ritual, they would be unable to control their menstrual flow; they would contaminate the village and sicken.

Kogumbari often occurs on the occasion of Christian festivals such as Easter, when the girls, fully dressed up, are 'shown to the people' during a dance on the mission ground. The white missionaries are unaware of the significance of the event. It appears that two ceremonies (puberty seclusion and initiation) to which adolescent girls used to be subjected have been reduced to one, which takes place upon the commencement of menstruation. *Otohu* are bestowed either then or upon marriage.

Boys receive their *otohu* at ceremonies which have become known as 'birthday parties', one of which is fully described by Crocombe (1966). The whole ceremony, including the conferral of *otohu*, usually occurs in a single weekend or at Christmas and a drinking party is sometimes given to the people by the father of the initiand. I never managed to attend one of these occasions but suspect that in many villages the ritual still involves the appearance of *embahi*. I have knowledge of one instance in a village close to Sivepe in 1967.

I was able to obtain additional data, relevant to the puzzle of the nature of the *otohu*, on two main topics: the role of the mother's brother and the role of the *aguma*. According to Orokaiva ideal norms, as stated to Williams (1930: 187) and myself, the mother's brother (*epe*) is the proper relative to perform initiation. This rule, like all others, is frequently broken, but it is worthy of mention that if there is no *epe* available to officiate, there is absolutely no preference for finding a uterine kinsman as a substitute: any other male consanguine is considered suitable, and in fact a father or father's brother often officiates. When Orokaiva informants were asked why mothers' brothers have this special relationship with their nephews, I was always told it is due to the love between the mother and her brother, in other words the *du* relationship. It is definitely not due to any special bond with the matrilineage or maternal patrilineage.

Bestowal of the *otohu* is only one of a series of ritual benefits customarily provided by the *epe*. These benefits take the form of medicines (*sivo*). A man

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

604 789 receives certain essential medicines from his father (e.g. for hunting, for planting taro) but other medicines are acquired during adolescence from the person who performs initiation, i.e. ideally the *epe*. These medicines include: ***ba kovari sivo***, a medicine applied to taro leaves when the tubers have filled out and are ready for harvest; ***kakara sivo***, a medicine for success in sex; and ***saruka***, medicines for killing enemies. Though these presentations are entirely separate from the gift of an *otohu* they do indicate what spiritual capacities a man normally derives from his *epe*; the fact that these include the capacity to kill enemies helps us to understand more easily why killing is so strongly emphasised in the ritual of the bestowal of *otohu*.

881 301 604 Nobody has the *right* to receive an *otohu* nor does anyone have an obligation to confer it. It depends in theory on the *epe's* appraisal of the worth of the young initiand and especially on how the latter has behaved towards his/her *epe*. Has the initiand been co-operative, obedient, well-behaved? The questions are rather similar to those asked by Father Christmas. But, like Father Christmas, the *epe* has a prior commitment: to part with his treasure to *someone*: it is in the nature of the *otohu* to be passed on from generation to generation, and ideally it is passed on in the matriline.

881 301 577 When I asked informants about the significance of *otohu*, their replies were in general very close to what Williams had reported: people respect their *otohu* as the concrete embodiment of the moral virtues they regard as most important in life. When I asked for the reasons for this respect, one informant answered: 'I received this *otohu* from my mother's brother who was a good man. My sister has a son now. I want to give this *otohu* to that boy when he has grown big. [778] *That is what makes it otohu* (=holy).' We should note the emphasis the informant placed on the words 'I want to'. He invoked neither obligation nor 'custom' but rather a sense that his *otohu*, by virtue of its inner nature, was destined to be passed on to another initiate. My informant did not consider this a loss to himself, for he said: 'If I want another one, I can always make myself one.'

729 881 The second ritual actor about whom I obtained additional data was the *aguma*. The rite of tantalising the initiate before giving him his *otohu* continues; the term I was given for this rite among the Sangara was *otohu pasari*, the verb *pasari* being also used for catching fish. I was also told about the *aguma's* recital of his war deeds, but this information came from middle-aged men. When these men were initiated, there were still old warriors who could claim a respectable score of killings, but by now most of these old warriors must have died out [266] among the Orokaiva. Profound changes in male initiation ritual have coincided with the dying out of the genuine old cannibals: one might say that one reason why the institution of initiation has been transformed is the absence of persons with the traditional qualifications of the *aguma*. One difference between the modern 'birthday party' and traditional initiation is the greatly reduced emphasis on killing as a capacity bestowed on the initiand.

729 881 628 [754] *Aguma* were usually not from the same village as the initiands. They were generally invited from a village two or three miles distant. In Sivepe, villages such as Isoge and Kendata were quoted to me as suitable places from which to invite an *aguma*; for Hohorita initiations they might come from Bonge or Koipa. The total list of *aguma*-villages as given to me had a striking resemblance to another

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

list which I had collected some time previously, namely the villages to which a person would go if he needed the services of a black magician, in other words, if he wished to apply *saruka* against a fellow villager who had injured him. When I pointed out this coincidence to informants they agreed that indeed they were always the same villages, but insisted there was no connection between *aguma* and *saruka embo*.

It is, however, the task of the anthropologist to explore such coincidences even if informants dismiss them as totally insignificant. In this exploration I was assisted by further facts, not noted by Williams, about the social exchange between the initiate and the *aguma*. Before the latter recites his war deeds, he will hand his limepot to the initiate. He then says something like: 'You are holding my limepot. Therefore promise not to beat your wife.' There are a good number of such vows the initiate must take. They no doubt vary a good deal from place to place, but generally cover a wide range of rules of social exchange, of the same type as are listed by Williams and by Chinnery and Beaver (1915: 76). Later, when the *aguma* offers the *otohu*, he does so *on condition* that the initiate keeps his vows. Persons who violate some rule of social behaviour are likely to be warned by fellow-villagers in terms such as: 'You had better be careful – you held the limepot.'

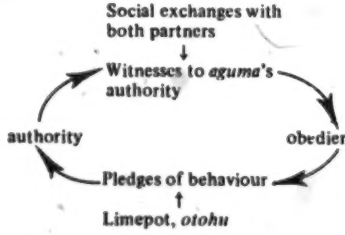
We thus find that *aguma* and sorcerer have something more in common than their provenance from the same set of villages. They are concerned with two interrelated aspects of social control: the *aguma* obtains certain pledges from a person and the sorcerer punishes that person if he breaks his pledges. It is significant that these guardians of moral values live in places which are on the fringe of the universe of friendly social relations maintained by any village. One may visualise this universe in widening concentric circles moving from friendly villages, to sorcery villages, to usually hostile villages. While the usually hostile villages tended to yield an occasional marriage partner obtained through abduction, the sorcery villages represent the outer limit of the area from which a person would ordinarily obtain wives, and therefore affinal and uterine kin.

It has often been remarked that guardians of moral values tend to be situated on the fringe of the social universe (e.g. see Gluckman 1965: 100–1). In view of what we already know of Orokaiva social relations (see model 20), we would expect that the initiand would normally have no direct significant social relations with his *aguma*. Usually his relations, if any, would be through one or more intermediaries. In the absence of such intermediaries, the initiand would see no reason why he should believe the *aguma's* recital of his war deeds nor his claims to greatness and why he should honour pledges made to a stranger. Williams shows that rude questioning of the *aguma's* authority, by young men in a position analogous to that of the initiand, was a regular part of the ritual (1930: 190). There is, however, a counterpart to these challenges which appears less clearly from Williams' account. I was told it was not enough for the *aguma* to protest his own war deeds; there must also be other war leaders present who will affirm that the *aguma* is speaking the truth. One gathers from Williams' account that there were two of these at the ceremony he attended (p. 189–90). He quotes one *aguma* as saying that these two intermediaries 'remembered his exploits better than he did himself'. The *aguma* then pretended to use these men as prompters. Whatever the two intermediaries were called upon to say or do,

A [See p. 135, Cat. 431--Analyst]

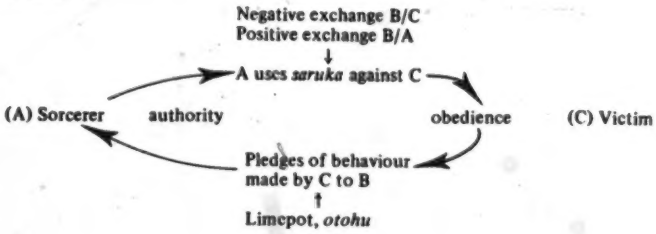
729 they would always add credibility to the words of the *aguma*, as their authority
881 would not be questioned by the initiand.
[537] The effect of this ritual would be to place the *aguma* in a very exalted position. The initiand would see that someone he regarded as an authority figure deferred humbly and showed his admiration to the *aguma*. The *aguma's* social distance thus increased the awe initiands felt before him and made the pledges all the more binding. We may express this transaction by the following exchange cycle:

MODEL 31



754 If the initiate should b[illegible]k a pledge, the wronged person may call upon
626 a sorcerer whose position l[illegible]ve suggested to be symbolically equivalent to that
[628] of the *aguma*. The Orokaiva never seems to use sorcery directly upon the person he wishes to punish, but always goes to a village on the periphery of his social universe, where he retains a sorcerer for a fee. Later on, when the victim of the sorcery (C) recognises the wrong he has done to the angered person (B), he will offer the latter some reparation. The latter will then ask the sorcerer (A) to cease pursuing the victim. We note that the exchange cycle thus set up is homologous with model 31:

MODEL 32



5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

5. *The Message of the Sacred Flutes*

We are now in a position to analyse Williams' data on the *otohu*. Recent theoretical advances in anthropology help us to a fairly easy solution to the problem of the *otohu* by following up a clue Williams threw away as insignificant. Williams was actually very close to the solution I now propose. He recognised that the explanation of the *otohu* is to be found in the ritual of initiation. He also recognised that Chinnery's and Beaver's explanation of initiation, (viz. that it educates by showing initiands the terrifying power of the spirits), 'does not lay sufficient stress on the actual paraphernalia, viz. the bullroarers and flutes, which play a more important part in the ceremony than would appear' (1930: 195). Finally, Williams records (*ibid.*, 185) that in some localities such as Wasida, one of the duet of flutes is actually called *otohu* and the other *e* (= mother). Though this usage is only local, it nevertheless gives us a crucial insight into the significance of the word *otohu*.

Seeing that the Wasida people used the same word for the mental qualities known as *otohu* and the larger and lower-pitched of the pair of sacred flutes, it is useful to inquire whether some symbolic equivalence exists between these mental qualities and these objects. The question falls into two parts. First, we have to explain why there should be any association between a flute and a set of social virtues. Secondly, we have to explain why the flute called *otohu*, which is symbolically equivalent to a set of moral virtues, should be played in antiphony to another flute called *e*. As for the first question, Williams reports that these flutes are never seen but only heard by the uninitiated and that they are regarded as voices of the spirits or *embahi*. The initiated have seen the *embahi* and are allowed to see and play the sacred flutes. They have made the acquaintance of the world of primal ancestors who enunciated and established the moral rules of social behaviour. As children they were taught to obey these rules, but as initiates they have experienced a mystic unity with the deities who established them. The sacred flutes, being voices of the spirits, have communicated these rules in their spiritual essence. Now an *otohu embo* (a man of good character, ibid., p. 205) is a man who lives according to the message he has received from the sacred flutes. The connection between the flutes and the set of social virtues is therefore not difficult to establish.

Secondly, why should the flute called *otohu* be played in antiphony to a flute called *e*? To answer this question let us first recall that according to Williams' own evidence (*ibid.*, 185), the Orokaiva classify one of this pair of flutes – always the larger and lower-pitched one – as masculine and the other as feminine. If the latter is equated to 'mother', then what kinsman is associated with the masculine flute? It seems most plausible that the masculine flute should be symbolically equivalent to the mother's brother, as it is he who acts as initiator of the novice and is thus, on the social level, the mediator between the latter and the spirit world. He teaches the initiand to play the flutes, he gives him medicines which ensure success in adult roles, and finally he presents him with the ornament called *otohu*. The association here is clear enough, but see model 34 on p. 187.A

Throughout the Orokaiva world we find the opposition of the male and female principle: between killing and nurture, bush and garden, victim and taro

A [See Category 431--Analyst]

The mother and mother's brother, being the most harmonious, gentle and affectionate male/female couple known to the Orokaiva, are the most suited for the task of mediating between the fearsome spirit world and the human being. The two initiatory flutes are therefore identifed with them.

How are the *otohu* ornaments connected with (*a*) the moral qualities and (*b*) the flute of the same name? The first part of this question was answered convincingly by Williams, as we have seen. But how are *otohu* ornaments symbolically equivalent to flutes? It is relevant to recall the difference between the two identity symbols *otohu* and *hae*. Ideally, the latter is transmitted in the patriline, the former in the matriline. All other differences (e.g. that the *hae* is attached to the corporate group and the *otohu* to the exchange system) follow from the mode of transmission.

The common characteristic of initiation ceremony, sacred flutes and *otohu* ornaments is that they all ideally derive from uterine kin or, in any case, that they have no necessary connection with the clan. Initiation pries the novice loose from early over-attachment to the clan and confronts him with the more adventurous, less secure world of the exchange system (*mine*). This applies equally to girls and boys. The rigours of this new arena are very effectively dramatised by the *aguma* whose recital emphasises that it is meritorious for the *otohu embo* to kill enemies. The same message is conveyed in a different way by the mother's brother whose role includes the gift of black magic (*saruka*) to his nephew. The ornament, *saruka* and other presentations come to the nephew not of right, but in the form of *mine*, in exchange for help and obedience offered to the mother's brother and gifts made by the novice's family.

The existence of two identity symbols, *hae* and *otohu*, side by side, indicates the strong emphasis placed by Orokaiva culture upon social relationships outside the corporate group. Among the neighbouring Baruga, whose culture closely resembles the Orokaiva, but who are more strongly patrilineal, we find only one identity symbol, the *kotopo*, which serves both as *hae* (lineage emblem) and as *otohu* (honorific ornament). Initiation is here carried out by the clan, introduces the novice to full clan membership, but carries no implications for participation in a wider network.

The *otohu* flute is a voice from the spirit world, mediated through the mother's brother. This voice communicates a certain moral order. The initiand hears the flutes but at that time makes no response. If he is later presented with an *otohu* ornament, he must make pledges. The ornament, as it is thrown back and forth over his head, communicates the same message as the flute but this time the novice responds to the voice. It is thus that he makes the ornament into a symbol of his identity.

6. Otohu *and* Hambo *Compared*

There are many resemblances between *otohu* and other *hambo*. They are made from largely the same materials. They are all, together with *di* (feathers) made accessible to men and women at the time of initiation, as soon as they have seen the *embahi*. Yet there are also many differences both in significance and in transactional custom. First of all, *otohu* may be worn on any important occasion, but *hambo* only during a dance or in other ceremonial contexts.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

431 of the 'husband' who either gives a woman in exchange (direct marriage
121 exchange) or else makes some kind of reparation for having deprived his
562 exchange partner (generalised marriage exchange).
582

REFERENCES

824 1. Erikson, describing 'the beginnings of identity' in the adolescent, comes
571 rather close to what I have in mind in this chapter: 'The emerging identity bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

881 2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

000 3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

of the dead remained basically unchanged, Christian burial rites and cemeteries are generally used in the belief that they are efficacious in controlling ghosts. Girls were "shown to the people" after initiation, preferably on the mission station during the Easter dances. The kere which was a women's initiation dance, was also performed on a mission occasion (the celebration of St. Barnabas Day, in honour of the patron saint of this station).

What was the motive of mission teachers introducing a new form of initiation ritual to the Orokaiva? This extramural activity, performed in the dead of night, signified a little more than the intertribal status rivalry analysed earlier in this chapter. The text of the songs gives no obvious clues to their significance at the present time. Though it was made up of at least four or five languages, due to diffusion of the cycle through the Northern District, I managed to collect a translation of most of it during a tour of Port Moresby when we visited knowledgeable members of various Musa River tribes. The songs evoke a series of phases in a woman's life, stating symbolically her role in initiation, courtship, marriage, childbearing and feasting. They are very rich in symbolic content which is not relevant here. But they contain no message that can be related to any modern millennial or cargo cult. During a visit to Uiaku, in the Collingwood Bay district, my wife found that the old women in that village knew the songs but not the younger ones. This points to diffusion from the Musa to the Collingwood Bay district some decades ago. All this evidence confirms the mission teacher's own explanation given to me that he introduced this cycle in order to keep old traditions alive, in order to give more strength to the younger generation which had not been properly initiated.

I was impressed by the strong religious sentiment displayed by the performers especially in the very first dances. They might at that time be doubtful about dance movements and words but not about the demeanour appropriate to the impersonation of spirits. At the very first practise, even the young girls knew the right bearing, intonation and rhythm. This was not truly the introduction of an alien ritual; the purpose and the strategy could not have been more familiar.

The involvement of my wife in this initiatory ritual helped to lend it the ambiguity that was evidently intended. It was not the purpose of the mission teacher to set up this pagan ritual in opposition to Christianity but rather to bring about its continuity in a Christian order. I have already shown in earlier chapters that the Christian dispensation is conceived as not only a religious but also and importantly a socio-economic one--that Christianity, wealth and wage labour are perceived as part of the same complex. If it can be made to accommodate women's initiation ceremonies (after jettisoning, of course, those aspects to which the clergy takes exception) future generations will have the strength of the forefathers. This desire for greater strength, in a physical and numerical as well as spiritual sense, was often expressed to me.

CHAPTER IV: Acculturation at the Time of Resettlement

My concern in this chapter is not to discuss acculturation in general, which has been done already in earlier chapters, but to consider the variations in degree of acculturation that existed between individuals and groups in the sample villages. This is an issue of some importance as the main line of change has not been so much that wholly new culture elements were introduced between 1951 and the present (though there were some of these, too) but that culture elements accepted by an élite in 1951 have become generally accepted today, while other elements again are now in the stage of being accessible to an élite of the younger generation.

There are many innovations which can be adopted by Orokaiva only on a village basis. I have already referred to the changes in house design; such changes were never made individually, though less conspicuous changes (the use of nails rather than bark twine) may be made by an individual. The abandonment of initiation ceremonies can likewise occur only on the basis of a corporate decision. At Sivepe they were abandoned after the war; on the other hand, girls' puberty seclusion and the subsequent ostentatious "coming out party" continued. Also, male initiation was widely replaced by a custom called a "birthday party" which was given to every boy of the age of nine or ten. Similarly, the inclusion of money in bridewealth is an innovation which, once made in a homogeneous community, is bound to become standard practise. In Sivepe the first such payment was amassed in 1950 and the median payment has been $24 since, without much upward trend, while in Inonda the leading family raised the rate well above this.

On the other hand, much change was the result of individual decisions which were gradually followed by enough individuals to make them into a change of general norm. Thus, girls' puberty seclusion used to last from three to six months; today, it often lasts no longer than three weeks while in Inonda, I was told, it is still shorter. In Sivepe, girls are usually still at school when the first menses begin. The Australian school teacher was most disturbed about the mysterious disappearance of his senior girls at this time and their dubious excuses when they returned to school, which however they did not always do. Until I told him, he did not fully realise that puberty seclusion was still practised in the villages; nobody had told him as they feared he might try to stamp out this custom. Some individuals keep their daughters secluded for months, even today.

At the time of the eruption no baptisms had yet occurred at Inonda, and only one, as far as I can find out, in Sivepe--and this man settled at Agenahambo later after a failed marriage. For the Inonda people, the nearest school was at Seva, and one boy (now the

796 The same pattern is found in the dancing which occurs nightly
197 before a major feast is held or before certain initiatory rites (like
the kere) are concluded. These are now referred to as "practises,"
[535] even though they are undoubtedly ritual acts in their own right. It
is also significant that the Orokaiva seasonal rites have been fitted
in as part of the Christmas and Easter observances, apparently as an
exotic appanedage, but in fact as a means of preserving traditional
religious obligations, even though in a changed form.

659 The same service of two masters is sometimes seen in the secular
sphere. People built lavatories, on official instructions, long before
[514] they dared to use them (for fear of sorcery). At Kendata, an hour's
[754] walk from Sivepe, I saw a village with new houses, built on the govern-
ment's instructions, but I was told nobody lived there except when
[361] there was a visit from the patrol officer. There are many such villages
in the Managalasi district. Here, government instructions are being
complied with but customary patterns have persisted. In Sivepe, not
very much show needed to be put on for the patrol officer. The place
was cleaned before he arrived, of course, but not significantly more
so than happened every week.

123 It is true that certain things were concealed from me in Sivepe,
but these fell largely into some simple and reasonable categories:
secrets known only to initiated men, secrets known only to members
of a family or of the Seho clan. It was not a practise of the people
to pretend to adhere to a custom they had abandoned or to pretend to
have abandoned what they were still practising. In the early days of
881 our stay, this did happen; it took some months before we discovered
that girls were secluded upon their first menstruation and then ceremoni-
ally exhibited. We were told this custom no longer existed. But then,
we had referred to the custom with reference to what Williams said
about it; and in that form, perhaps, it was not or no longer practised
[841] in Sivepe. Later, I was told that if the ceremony was not performed
[783] girls could not control their menses; there would be no way of stemming
the flow of blood and everything would be polluted. Thus, the ritual
has persisted. Whether full-grown girls, completely naked, are carried
through villages at the present time I very much doubt (viz Williams,
1930: 207). I was told that these customs lasted until the second
534 world war and then were abandoned. But I found the word "abandoned"
782 always a dangerous one; the calling down of spirits with bullroarers
178 in preparation for a feast (viz. Williams) was also, according to
Sivepe informants, an "abandoned" custom; yet it happened in both
Inonda and Urarituru (a mile from Sasembata mission station) in 1967.
It was true that it had not been done in Sivepe for some time--not
since the middle fifties--and that there was no immediate intention
of doing it again. On the other hand, Sivepe knew the use of bull-
roarers as a means of calling down spirits which would then be
present at a feast and give this feast magical potency. For the time
being, Sivepe people evidently feel that this procedure is unnecessary
for the achievement of their immediate ends but it is still part of the
store of available possibilities should a need appear to arise.

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

But for most everyday purposes, the cooperative alliance is even smaller and does not extend beyond the three-generation family.

Relations with uterines, affines, and more distant agnates (that is, those beyond the lineage, and those who are resident in other villages) follow the pattern of competitive exchange. An example of what this implies would be the role of mother's brother as officiator at initiations. Elsewhere, (Schwimmer, 1970b) I show that ideologically, he is the proper person for the office, but that the father's brother and even the father would do as well. The mother's brother is not obliged to act; he is paid if he acts; furthermore he will act only if prior to an initiation, the neophyte involved has obliged his uncle by rendering him small services and being pleasant to him. Certainly the mo/bro si/so relationship is a warm affectionate one, but it is explicitly free from unconditional obligation. It is, in fact, the first formal relationship into which a person enters, where prestations on both sides are by free choice.

How can we explain that, at least in Sasembata, the Orokaiva classify guest friends with the sibling group (by applying the terms *apa/eambo* to them), whereas the Tangu use an affinal idiom? The answer is that siblingship has different connotations in the two tribes. Burridge (1969) emphasizes, above all, the amity that must govern the relationship between senior and junior siblings among the Tangu. If the junior sibling becomes unduly competitive, it is not held against him, but the relationship is redefined so that he becomes a *mwerkindang* – a competitor instead of a subordinate and protégé. The Orokaiva do not permit such a change in status; the younger brother must obey or sever his relations with his family. Moreover, the *apa/eambo* relationship is not confined to the cooperative alliance but includes distant agnates and all uterines within the exogamous group. A good deal of competition and exchange normally occurs between such kin, although the ideology of the *apa/eambo* relationship is basically that of a corporate group pooling resources for the support and protection of its members.

Secondly, the custom of classifying guest friends with siblings is not general among Orokaiva; the Sangara use the term *namei*. Furthermore, terminology is as much an ideological device as a reflection of reality. Use of *apa/eambo* means that people should behave *as if* they were siblings; that is, make free gifts instead of exchange gifts. These terms may be used when one seeks to extract a presentation from a comparative stranger, in which case they mean little more than an appeal *ad misericordiam*. In an hereditary friendship in which it is unusual to make claims, the terms signify that the gifts made to a visiting friend are not repayable but free. Certainly, it would be considered wrong to press claims on the basis of such gifts. On the other hand, the host is expected (*not* merely permitted) to make a return visit, and if he does not present gifts on that occasion, he will certainly be the subject of gossip and loss of reputation.

In considering the manner in which these gifts are given, Sahlins'

25: Schwimmer E-5 (1966-1970) 1974 OJ23 Orokaiva OJ23

572 Relationships of this sort are sometimes intertribal as women abducted by enemies were in the habit of maintaining contact with each other, and such contact was inherited by their sons and daughters. When men belong to an *otavo* relationship (see p. 67 below), their wives address each other as *jao*.

602 (c) *Simbo*. Outside the cooperative group, social relations (even with consanguines) are spoken of as voluntary. This applies especially to distant consanguines and non-resident consanguines. Thus, the kin category *simbo* must contain many members, if purely genealogical criteria are to be used. If two consanguines share no plant emblem and are related through siblings of the opposite sex, they fall within the *simbo* category (the term is not precisely equivalent to cross-cousins). There is no limit on kinship distance, and persons recognized as *simbo* may be cousins several times removed. Often, it is impossible to reconstruct the genealogical connection. Like Orokaiva kin links, this one is simply inherited from generation to generation (bilaterally, in this case).

As one cannot get informants to list more than ten or twelve *simbo* families dispersed in a number of villages, one must assume that *simbo* links, like those of hereditary friendship, are often forgotten. On the other hand, one may always rediscover a *simbo* while on a journey, so that there is a reservoir of unused links that can be revived. In general, however, a relationship can be relied upon only if it is kept alive by periodic contact.

[582] The best translation of *simbo* would probably be: potential preferential marriage partner. While the primary meaning refers to a cross-sexual relationship, the male *simbo* have a special kind of bond which fits neither the cooperative nor the competitive exchange category. Literally, *simbo* is a marriage arrangement made when a girl has gone through the ceremony of menstrual seclusion and *kogumbari*,[8] but is not yet marriageable. Two aspects of the relationship between male *simbo* which are always stressed are the great love *simbo* have towards one another, and the rigorous taboo observances that are customary and strictly enforced.

[592]

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The taboos resemble those practised between *dambo* (brothers-in-law); this is reasonable because if a man marries his female *simbo*, her brother becomes that man's *dambo*. The same taboos exist against mentioning the *simbo*'s name. All quarreling in the presence of a *simbo* is strictly forbidden. If a quarrel occurs nonetheless and *simbo* orders one to stop, one must obey or else pay a pig as compensation. If *simbo* touches any of one's possessions, one must give that object to *simbo*. A request made by *simbo* cannot be refused. This last rule about possessions and requests does not apply to *dambo*.

[881] 8 The term means decoration and is applied to face-painting, dressing the head with feathers, the wearing of shell and bone ornaments, armlets, fur arm pendants, and the like. A boy or girl is first decorated on the occasion of initiation. The dressing up is then usually done by an expert in the clan and paid for by the parents. For details see Williams, 1930; Schwimmer, 1970b, 1970c.

26: Schwimmer E-5 (1966-1970) 1974
OJ23 Orokaiva OJ23

the dead person. At ordinary harvest feasts and bride-wealth payments they are seen on display platforms along with taro and other vegetables. They are then subsidiary to taro and pigs, which are the main food gifts, but at mortuary feasts vast quantities are given, saved from the dead man's palms, which are made taboo until this feast. Dry coconut and areca are strewn on graves by affines of the deceased.

The distinctive features perceived by Orokaiva in each species should also be summarized. Coconut is believed to be a valuable adjunct to the diet of children and dogs (also chickens). In Orokaiva myths, its miraculous effect on children and dogs is often described. To the scientific observer this effect is natural enough as coconut is an important source of first-class protein for both children and dogs, who otherwise do not get much first-class protein. Coconut oil is used as a cosmetic for hair and body not only to enhance beauty but also for its magical efficacy, for the purification of man-slayers (Williams, 1930: 175, 207), and for women who are being initiated or who welcome visitors at dances. In all such cases it is the task of a male to pour the coconut milk over the persons whose magical protection is intended.

Areca, a mildly hallucinogenic fruit, is chewed by women as much as by men. When friends are sitting together, it is shared in much the same way as beer among white Australians. People offer nuts to each other but expect to come out approximately even. Visitors from other villages expect to be offered areca by their hosts. Its main physiological effect is to create a dreamy amiability and to break down hostility that might otherwise exist. Its magical uses, mostly in association with some medicine of more specific purpose, are too many to enumerate. A girl carries a bunch of areca at the ceremony which ends her seclusion after first menstruation. She normally offers it to her man at lovers' meetings.

Although I have a number of coconut and areca myths on record, I shall discuss here only one, the fullest one, which illustrates my argument most clearly. A beautiful girl, noted for her remarkable breasts, had the misfortune of killing all the young men with whom she slept. Her breasts pricked and killed them.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

include gifts to persons of the same household? It would have been easy enough to lay down a rule that this kind of gift should be excluded from the survey and nor mentioned by informants, but I decided that it was not for me to start defining to the Orokaiva what was meant by a phrase like *ba ikari* 'to give taro'. Evidently food given to household members was, in certain circumstances, regarded as a gift. I recorded a total of 265 such 'transactions' from fourteen households during the survey period. Among those who mentioned such 'transactions' were some of my most helpful informants. At the beginning of the survey, household members were only sporadically mentioned but the number of mentions increased as the survey proceeded, until a pattern emerged.[2] A gift of food from wife to husband was never mentioned. A gift to a household member other than a natural or adopted child of one or both of the marriage partners was always included. Married daughters and sons old enough to live in a bachelor's house were always included. What confused informants most was how to regard gifts to younger sons and daughters.

Some parents included their children if they were old enough to be of school age. Others included the boys if they had gone through the 'birthday' ceremony which nowadays takes the place of initiation and included the boys if they had been through puberty seclusion. Others again did not include their dependent children at all. There was no uniform pattern. I ascribe the confusion to two factors: first, it used to be customary for children to start working in the garden at a very early age, doing whatever was within their capacity and making some contribution to the household economy. Boys would be given their own small garden plots at an early age and their sisters would fulfil some feminine tasks (planting, harvesting) in these plots. When schooling became general in the district, the children ceased making that kind of contribution. Secondly, school 'lunches' were mostly taken by the children every morning and eaten on the school grounds. These lunches were identical in form to the intra-village taro gifts: they were a meal of cooked taro cooked by the mother and taken out of the home.

Intra-household taro gifts were reported to me in too inconsistent a fashion to permit statistical analysis, but they were interesting as they revealed the household to be, in itself, a minuscule exchange system. This system was intact to a greater extent in Hohorita, where schooling ends at grade 3, than in Sivepe where adolescents are mostly at school rather than in the garden. At Hohorita adolescents grew and (if they were females) harvested vegetable food, gave this to their mothers, and their mothers fed and looked after them. The same principle applied in Sivepe to adults living with their adult and married children, brothers or sisters. Even very old men and women do what gardening they can to make a contribution. The record shows, in the case of some of these old people, that they made hardly any contribution at all during the survey period. As this was a period when taro was becoming scarce, their small gardens were exhausted, but a few months later some of them would again have crops of their own.

Most of the older people who thus depended on gifts for their sustenance were not fed by one household only, though usually one household bore most of the burden. However, wherever there was a helpless old person, there were always at least two regularly contributing households in addition to the one to which that person was attached. We must distinguish, among the Orokaiva,

and two walked over the Owen Staaleys to Port Moresby in search of work. Two of the remaining three are still at school at Sasembata, leaving only Rodney Gill at home. The fact that he has not already left probably reflects some latent sense of obligation towards his parents.

After completing standard 4 at Sasembata, Rodney Gill went to stay with his married sister near Port Moresby for several months but he has never been employed outside the village. Nevertheless, he is frequently away for several weeks at a time, particularly at Sangara. Even during the survey period he was absent on 17.9 per cent of potential survey days, or 34 days in all. During 32 of these he was on an unbroken visit to Sangara assisting a settler construct a house, for which he received $8 and his keep.

Two months after returning to Sivepe he obtained work at Sasembata mission station, helping to erect new class-rooms for a salary of 80c per month. Disillusioned by the small wage he left after three months; nevertheless this work was the most important category in his total activity pattern. Since his parents have no cash crops and Rodney Gill has made no attempt to establish his own, the little cash cropping he does, 0.4 hours per week, is confined to assisting his brother Cecil King with his coffee.

Rodney Gill spends only 32 per cent of his time on productive subsistence tasks, compared with the sample mean of 65 per cent, and his contribution to subsistence gardening is particularly slight. Like other youths, he prefers to spend his time hunting and fishing, and for him other subsistence food production is the main subsistence activity. During the survey Rodney Gill rebuilt, almost single-handed, the single men's house in which he sleeps and also gave Cecil considerable assistance in rebuilding his house.

In general the productive tasks available in the village which appeal most to young men are those which occur irregularly or which can be done on impulse, have an important recreational aspect and have associated with them obvious shows of skill or strength. Their most popular leisure pursuits are parties and dancing to guitars. Rodney Gill spends more time fulfilling social obligations than any of the other individuals considered - 6.9 hours a week - yet 75 per cent of this was attending parties. Although most youths seldom have much money to spend on food and alcohol at these gatherings, the guitar music, singing and dancing pursued unrelentingly through the night appeal to them. Modelled as they are on expatriate festivities, and given an element of inter-village rivalry with

166 464 461 he expresses at present a preference for paid work and spent over 27 hours, in addition to one full day, seeking employment. However, the only paid work he obtained was on the entrepreneur's construction contract at the airstrip. Since the completion of road construction in the area, paid work other than labouring for settlers has been difficult to obtain. Isemba has sought work requiring responsibility, for instance, as a storeman, rather than casual labouring, but even in Popondetta responsible work is rarely available and there are many other men of similar age and with similar or better educational qualifications competing for the same few vacancies.

512 461 [226] Isemba is active for an average of 49.5 hours per week. His most time-consuming task is fishing, usually with friends of the same age, and this is probably regarded as recreation as much as productive work. It accounts for 20 per cent of the week's activities. Sago-making is also important in the dry season. In the category of other food-producing activities over one-third of the time spent in subsistence gardening is in planting taro, sweet potato and minor crops and one-half in clearing and harvesting. During period III, he made a garden independently of his brother for the first time. This was intended for his brother's wife's use and served as a return for the food he received as a member of the household. Productive subsistence activities account for 21.4 hours a week.

[434] Isemba's main cash-producing activity is paid employment. He also assists his brother and others in their coffee gardens and spends some time in marketing. In fact, he never acquired any cash in the Popondetta market: he threw away unsold siporo (limes) and gave unsold bush-turkey eggs to a friend. However, in November, he caught a 4 ft long crocodile in the Girua River and sold it to a Chinese merchant in Popondetta for $4.50. The 2.1 hours spent on purchasing are partly on his own account and partly as a service to others, since purchasing provides a reason for travelling and meeting friends.

[883] Apart from the category of other food-producing activities, social activities consume most time during the week, with a slightly higher proportion spent on visits than on organised feasts and parties. These visits are brief and distinct from those considered in discussing absences and are one of the most typical aspects of the behaviour patterns of young men. A closely related activity is church attendance, which occupies over an hour a week because Isemba often walks to services at Ijika, again in order to meet his friends. His visits to the aid post take up more time than the average spent even by women with

[796]

ing time. Humphries (1944 : 3) estimates the annual payment per man to have ranged from a few shillings to £4 per year.

At that time some of the young single men were going out to work on plantations in return for food, accommodation and a cash wage of £6 per year. All plantations had to supply tobacco, soap, sugar and meat each week-end, and some paid wages every month (usually 10/-). But payment in cash and kind was not the only incentive to taking employment outside the district. Perhaps the main reason was the experience involved, for it seems to have become a necessary prerequisite to manhood that a youth should have been away to work. The income acquired was used at least partly to supply his bride-wealth on his return.

From discussions with many Orokaiva people who were involved in the plantations it seems that they regarded the scheme as an imposition whereby the people were required to plant coffee which the government commandeered and sold to its own profit. The annual cash payment was not viewed as a price per pound but as a token payment by government for their labour.(1) Official reports (e.g. P.A.R. 1933-4 : 27) noted that the people "complain loudly" when the payment was not up to expectations and in 1939 a demonstration occurred when the money paid out at Higaturu was thrown on the ground by the recipients.

The plantations were undoubtedly overstaffed and workers should not have been under any strain to complete their tasks. With 700 workers for the 242 acres of coffee there was an average of nearly three workers to the acre, though allowance must be made for their having to carry the produce to the depot and in some cases to pulp it also. At Ongoho there were six to the acre, though walking to and from the job must have

(1) It is still quite widely held that produce prices are fixed by government, and that in the same way as Europeans are paid higher wages, they receive higher prices for their coffee. Humphries (1944 : 2) noted that the people regarded "working for the government" on native plantations as much less remunerative than working for a planter.

CHAPTER 4 - WORK ORGANIZATION

Characteristics of the work force

464 At the time of our survey there were 23 persons of 15 years of age and over living in the village. One old man was very frail, and one woman who was visiting her brother while she recuperated from an injury, did no productive work. There were no girls between the ages of ten and fourteen, and only three boys. Two of the boys were temporary visitors and did not stay for long and the thrid, a lad of about ten years, was never seen to engage in any productive work. Children of nine years and under frequently helped with domestic chores like carrying water and firewood, but they took little or no part in agricultural production. This left a work force of 11 men and 10 women, though one man died during the survey, thus leaving equal numbers of each sex.

464 As shown in Table 9 below, all Inonda household
166 heads except one had been employed,(1) and they had spent at least part of that time away from their home village. With the exception of those employed as teachers, village councillors or village constables, almost all the men had gone away to work before they married (and marriage was consequently delayed for these men). There was no pressing economic reason for young single men to remain in the village, for subsistence gardening is primarily women's work and such men's work as there is to do can usually be done by the head of the household. In fact the
888 people have come to regard a trip away to work as a necessary
554 prerequisite to adult life. It gives an opportunity to earn money (much of which is saved in order to acquire a bride on return to the village) as well as prestige, and the one man who had never had paid work was mocked on that account. Only one Inonda man was employed away from the village at the time of the survey. He was a single man who was working in Port Moresby (and was not included in the survey).

(1) There were three men who were not heads of households. Two were old men who had not had any paid work as it had not been available in the time of their youth. The other was a young man who had spent 4 years as a medical orderly. Three women had been employed - two had spent a year each as teachers and one had spent a year in domestic service.

one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

The significance of this ritual became a little clearer to me through the case of

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A.[See Category 491, pp. 34-37--Analyst]

512 [75] [164]

Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433

Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

592 461

The organisation of work by households

Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887]

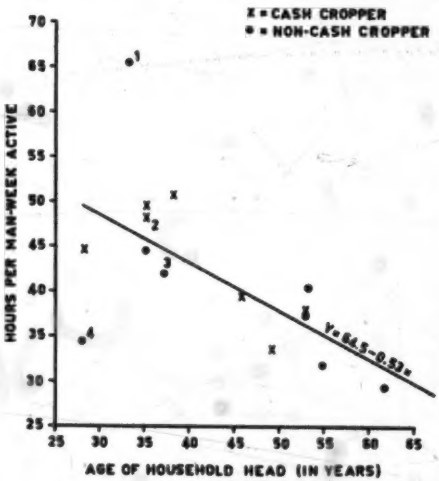
At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

592
461

SIVEPE FIGURE 6:6

RELATION BETWEEN ACTIVITY TIME, AGE AND CASH CROPPING STATUS, SHOWING THE LINE OF AVERAGE RELATIONSHIP BETWEEN TIME AND AGE



ANOMALOUS HOUSEHOLDERS:
1 Divorced woman, eldest daughter in full time employment
2 Divorced woman
3 Recent arrival, temporarily linked by marriage
4 Temporarily resident only
1 and 3 left the village part-way through the survey

of available labour time through sickness.[1] All seven households headed by people in the 45+ age group are characterised by a below average activity week. Only one other household is below average (4), a couple who were resident for only 12.3 man-weeks, before

[887]

[1] See Table 6:3. A

A, [See Category 164, p. 79--Analyst]

517 [177] 518

competing guitar groups, parties also provide a means of making contact with the opposite sex.

512 [177]

Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Sasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 6.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

512 461

In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

887 512

Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (6.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

887 512 time is somewhat different, greater emphasis being laid on the planting of food crops, suggesting that their harvesting is primarily the concern of his daughter. Although he obtained considerable assistance in rebuilding his house during the survey, Umbahapa spent 2.9 hours per week on construction but all other productive tasks are of little significance.

Social obligations are no longer of much concern to Umbahapa, restricted as he is by his bad leg and increasing age. They account for only 1.9 hours a week and among them mourning predominates. These apart, he is a frequent church attender and periodically visits the clinic in connection with his leg. However, Umbahapa's behaviour shows he is no longer a fully active member of society; his concern is with meeting his subsistence requirements and whether he successfully achieves these on the basis of his efforts alone is questionable. Umbahapa is very dependent on the 'sympathy group' since it is his kinsmen and the community as a whole who have assumed responsibility for his well-being. [888]

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.

The question is an interesting one, but Sivepe does not
114 provide a clinching counter-instance. Mr. Waddell's sample was taken
entirely from the Jegase and Timumu clans, while he did not collect
[484] data on travelling time from the Seho clan. Now it is the latter clan
which owns most of the land around New Sivepe, so that their travelling
[423] time is (at least for most families) substantially reduced by the shift.
Furthermore, five of the Jegase households (some of which were formerly
called Timumu) now have gardens very close to New Sivepa. The main
sufferers appear to be two families who migrated from Binduta recently,
whose land is mainly close to Binduta, and against whom feeling has
been building up over the last few years. Mr. Waddell is right,
however, in stressing that the major reason for the shift (as given by
informants) was the closeness of the new village to the road and the
mission station. As such the basis of the shift was practical and
ideological but I believe that overall travelling time was reduced
if both Seho and Jegase clans are taken into account. Certainly the
new village is very close to the land of most of the Sorovi people
who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time
could be reduced, and thus working efficiency increased by land tenure
conversion. He has in mind, I think, the arrangement already found
in Papuan returned servicemen's settlements established by the government
where each individual family is settled on its own 20-acre block and
grows cocoa and subsistence crops there. Conceivably, when tenure
conversion is completed, the Orokaiva might be encouraged to live on
individual farm holdings rather than in compact villages. Some planners
in the Territory are actually playing with this idea. It has many
drawbacks, however: distance from roads, from schools, collapse of
social control institutions, abandonment of useful social development
projects such as the provision of good water supplies in the resettle-
ment villages.

Comparison with Inonda suggests that as the proportion of adult
males lost through migration from Inonda is smaller, and none of these
males have left dependents in the village, and furthermore, as the
amount of cash cropping work is relatively smaller, the Inonda people
are less pressed for time than those of Sivepe. This is borne out by
the fact that they are away from the village more frequently as
Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of
time spent on productive work, but the amount of time devoted to social
activities and contacts outside the village declines even more steeply
after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]

613 the father's father of the oldest members of the dispersed clan
614 branch but the specific kinship relationships between these ancestors are forgotten.

The Jegase people do not name a putative founder of the dispersed clan branch. Nor do they assume that the eponymous ancestors of its subgroups were brothers. The single site of settlement of the ancestors of Jegase men in this neighbourhood is their only recognized evidence of common origin. But this focus of their common identity still offsets the more recent attenuation of intra-group relationships owing to dispersal. The lineages emerge as contrasted co-ordinate group-segments because their histories have diverged since they jointly occupied one territorial centre. There is no fiction of opposition between segments in genealogical terms.

Informants sometimes indicated a sense in which certain lineages are considered closer to each other than to the rest of the dispersed clan branch. This type of alignment seemed to be associated with a joint historical identification of these lineages with a part of their group's territory. It is possible that this in turn is due to a closer patrilineal connection now forgotten, but the people do not venture on this type of explanation.

(iii) Authority and land control in the descent group. Anthropologists have remarked on the indeterminate system of leadership in Orokaiva villages and descent groups and the lack of formal sanctions for authority, and government officials have found that continued lack of emerging leaders impedes the planning [C22] of local government and village reforms. Williams discusses the 'absence of central authority' (1930:325) and the 'entire lack of any ceremony of chieftainship' (W.23): he points out (1930:104) that the titles for 'big men' (embo peni, embo dombo) imply only that they are 'men of importance who cannot claim to be leaders'.

● [888] There was however, a recognized ascendancy of old men. The 'leader and ruler of any clan' was said to be the eldest of its men provided he was equal to the minimal requirements of the position and 'only in the larger clans, where there are well-defined family groups, does the question of hereditary succession appear, and then it is a somewhat faint appearance' (1928:125) - but only if the large clans are localized, for he says that where 'the clan is scattered, there is no single leadership' (1925:407). [C22] On the other hand Reay (1953:115) says that 'the embo kiti, whom F.E. Williams called a "clan headman", but who is really more of a village headman whose position is hereditary within a certain lineage of the clan, has a limited authority which is backed by no sanctions' (embo kiti: first man).

556 [888] [178] Our brief investigations indicated that neither seniority by age nor seniority by genealogical position is invariably an attribute of the men who today exercise power among local agnates or have influence in a wider local group. This may indicate recent cultural change. These men very often achieve and maintain such a position as men who are personally active in a wide range of affairs[1] (delegation of responsibility by issuing orders is sometimes spoken of as characteristic of the European system of leadership). They will be vigorous gardeners,[2] organize feasts and participate in a wide range of traditional exchanges, at the same time building a reputation as a man who has acquired material wealth, e.g., livestock and - to a lesser extent now than formerly - traditional valuables.

555 Not the least of their assets may be a reputation as a practitioner of 'white' magic, or as a dangerous man who has assiduously developed the skills of a sorcerer. The roles of 'big men' with these attributes may not be directly related to their age or genealogical status in a descent group. There are often several such dominant figures in a village.

621 [622] The diffuse pattern of authority evident in villages in the neighbourhood under discussion may be ascribed partly to the fact that the present nucleated settlements are the culmination of a series of what the people feel to have been enforced amalgamations of independent kin groups. Even before this process began no source of political cohesion existed in the form of inherited positions of authority commanding the continuing allegiance of sizeable local groups of dependents.

625 The expansion of villages to embrace more kin groups was accompanied by a proliferation of independent minor leaders in a single local group, not by the consolidation of positions of power. A patrol report of 1948 also revealed that the large Isivita, Isoge and Awala 'native districts' had received so little attention from the District Office nearby that the organization of villages under village constables had been allowed to deteriorate 'almost to chaos' since the Japanese occupation. 'One constable was found looking after eight scattered hamlets.'[3] Moreover in some cases migration seemed to have been so extensive that the areas of a number of constables overlapped.

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[595] [1] Cf. kiti jigari (p.30).

[2] Polygamists were able to maintain larger garden areas than other men. On the incidence of polygamy in the past see Williams 1930:130.

[3] Note that in 1924-5 among the Aiga 4 of the 10 village constables were each in charge of 6 or more villages.

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